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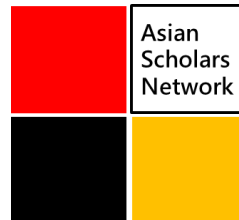
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A Pilot Study on the Effectiveness of Mindfulness-Based Intervention in Reducing Mental Health Problems among Female Elderly during Covid-19 Outbreak

Huynh Cong Du^{1*}, Nguyen Phuong Lan²

¹ Department of Psychology, University of Labour and Social Affairs (ULSA2), Ho Chi Minh City, Vietnam

² Faculty of Tourism, Ho Chi Minh City University of Food Industry (HUFI), Vietnam

*Corresponding Author: duhc@ldxh.edu.vn

Abstract: *Related literature has shown that COVID-19 has spread around the world, which has brought about negative impacts on the lives of people, and that the elderly, however, face special challenges of mental health problems during the pandemic outbreak including depression, anxiety, and stress. Recent studies also revealed that in emotional reaction to the Covid-19 pandemic, the women experienced more stress, anxiety and depression than men. To address this issue, this pilot study aimed to test whether mindfulness-based intervention can help the female elderly reduce their mental health problems in this difficult time of Covid-19 outbreak. Pilot result showed that the intervention is effective in reducing the mental health problems of depression, anxiety, and stress. This finding suggests that the program is significant for the female elderly, mental health practitioners, guidance counsellors, psychologists, and that future researchers should conduct more studies with larger scale to further validate the program effectiveness.*

Keywords: COVID-19 pandemic, elderly, mental health problems, depression, anxiety, stress

1. Introduction

Elderly, as a developmental period, is filled with many challenges. Early developmental theorists, particularly Erickson has defined the period of elderly, as the integrity versus despair stage in which people reflect back on the life they have lived and come away with either a sense of fulfillment from a life well lived or a sense of regret and despair over a life misspent. The onset of this stage is often triggered by life events such as retirement, the loss of a spouse, the loss of friends and acquaintances, facing a terminal illness, and other changes to major roles in life (Perry et al., 2015). Additionally, advanced aging itself is a pre-disposing factor to physical and mental health issues. With rapid strides in medical care and increasing average lifespans, the elderly also comprise a significantly large proportion of the population. The presence of comorbid conditions makes them more susceptible to new infections and the accompanying psychological distress (Andreas et al., 2017).

The World Health Organization (WHO, 2020) on 30 January, 2020 declared COVID-19 as a Public Health Emergency of International Concern (PHEIC) because it has brought about many impacts. Of which, mental health issue has called much attention from mental health workers and researchers. Correspondingly, there has been some researchers who tried to investigate the impacts of the Covid-19, particularly, on the elderly's on mental health, found that pandemic has brought

about even more challenges to the elderly. For examples, the elderly have changed daily routines, the care and support they receive, their ability to stay socially connected. Additionally, they are also challenged by requirements to spend more time at home, lack of physical contact with other family members, friends and colleagues, temporary cessation of employment and other activities. The abovementioned changes have caused mental health problems for the elderly. Surprisingly, women were found to be at higher risk of mental health problems during the Covid-19 pandemic outbreak. For examples, Liu et al. (2020) found that women were found to suffer more post-traumatic stress symptoms as compared to men. Similarly, Li and Wang (2020) found that women had higher risks of psychiatric disorders and loneliness than men. These findings were consistent with that of Qiu et al. (2020) who found that in emotional reaction to the Covid-19 pandemic, aged (over 60 years old) women experienced more stress, anxiety and depression than men. Therefore, it is worth to do something to help the female elderly. For this reason, this pilot study aims to test whether Mindfulness-Based Intervention (MBI) can reduce mental health problems of depression, anxiety and stress caused by the Covid-19 pandemic the female elderly has faced.

2. Literature Review

The World Health Organization (WHO, 2020) on 30 January, 2020 declared COVID-19 as a Public Health Emergency of International Concern (PHEIC) because it has brought about many impacts. Of which, mental health issue has called much attention from mental health workers and researchers. Correspondingly, there has been some researchers who tried to investigate the impacts of the Covid-19, particularly, on the elderly's on mental health, found that pandemic has brought about even more challenges to the elderly. For examples, the elderly have changed daily routines, the care and support they receive, their ability to stay socially connected. Additionally, they are also challenged by requirements to spend more time at home, lack of physical contact with other family members, friends and colleagues, temporary cessation of employment and other activities. The abovementioned changes have caused mental health problems for the elderly. Courtin and Knapp (2017) found that perceived social isolation and loneliness lead to a wide range of psychological symptoms in old age, including depression and anxiety, and impact negatively on quality of life. Aylaz et al. (2012) discovered that loneliness is a potent risk factor for depression and cognitive disorders, especially when chronic and associated with lack of physical activity. Enforced social isolation in the context of a pandemic may, however, be very different to that arising in normal circumstances. During a pandemic, such as COVID-19, emotions such as fear and anger increase the rate of symptom manifestation and maintain high levels of anxiety and stress in vulnerable social groups, such as the elderly and those with existing mental disorders, as well as healthy people (Shigemura et al., 2020). Another study within an older, UK population, Robb et al. (2020) have identified the risk factors for the development of anxiety and depression as a result of COVID-19 related social isolation. In a recent rapid review on the psychological impact of quarantine in disease outbreaks, Brooks et al. (2020) found links to anxiety, depression and symptoms of post-traumatic stress, with some evidences that these could persist long-term, and that factors associated with negative outcomes included quarantine for over 10 days, fears relating to infection, frustration and boredom, and lack of information and supplies. Most other similar studies found the same results that their elderly participants were found to experience major symptoms of stress, depression and anxiety during the pandemic (Sepúlveda et al., 2020; Brooks et al., 2020; Mukhtar, 2020; Qiu, et al., 2020).

Surprisingly, women were found to be at higher risk of mental health problems during the Covid-19 pandemic outbreak. For examples, Liu et al. (2020) found that women were found to suffer more post-traumatic stress symptoms as compared to men. Similarly, Li and Wang (2020) found that women had higher risks of psychiatric disorders and loneliness than men. These findings were consistent with that of Qiu et al. (2020) who found that in emotional reaction to the Covid-19 pandemic, aged (over 60 years old) women experienced more stress, anxiety and depression than men.

Unfortunately, previous studies warned that any infectious disease outbreak or pandemic brings with itself a major setback in the mental health front. In the case of the Ebola outbreak in the year 2014, symptoms of Post-Traumatic Stress Disorder (PTSD) and anxiety-depression were more prevalent even after 1 year of Ebola response (Jalloh et al., 2018). The risk of PTSD in the aftermath of the pandemic can, therefore, be a huge challenge to the mental health of affected individuals as well as of a country as a result of this pandemic. There should be more effort and attention for those aged above 60 years and because they are physically and mentally more vulnerable than other age groups (Wang et al., 2020).

While there has been no or very few interventions designed for elderly mentally affected by the Covid-19 pandemic, mindfulness which involves bringing a certain quality of attention to moment by moment experience (Kabat-Zinn, 1990), is the heart of Buddhist meditation practice and psychology (Germer & Fulton, 2005). It has seemed to become useful because it is easy to practice and everyone can practice anytime, anywhere (Thich Nhat Hanh, 2005). Therefore, there has recently been a research trend and a good amount of interest in the mental health benefits of mindfulness (Brown & Ryan, 2003) because it has showed effectiveness on its practitioners as a whole. For example, mindfulness enabled the practitioners to develop an ability of self-observing (Segal et al., 2002), improve ability of self-control and social relationships, as well as better academic performance (Rosaen & Benn, 2006), increase students' attention and social skills as well as decrease test anxiety in children (Napoli & Holley, 2005; Napoli et al., 2005), increase sense of calmness, connection to nature (Wall, 2005) and; improved relationships (Harrison et al., 2004). Mindfulness practice brings about many psychological and mental health benefits. For instance, mindfulness enables its practitioners to develop a stronger observing self and thus becomes less identified with the contents of consciousness (Segal et al., 2002). Mindfulness allows us to stay present to the other person without being caught up in destructive emotions (Doherty, 1997). Moreover, mindfulness allows covert desensitization to unpleasant thoughts and negative feelings that make one suffer from himself (Breslin et al., 2002).

Recently, in their review of the effects of mindfulness-based interventions, Geiger et al. (2016) examined 15 relevant studies investigating the effects of mindfulness-based interventions on physical and emotional wellbeing in elderly and found that the results of these studies offer support for the feasibility and acceptability of mindfulness-based interventions. Their participants regularly attended sessions, completed homework, and continued to practice skills at the conclusions of group. In a qualitative study of older adults' perspectives on initiating exercise and mindfulness practice, Parra et al. (2019) confirmed that after mindfulness training, older people increased their awareness and self-reflection and fostered a more self-accepting attitude. Furthermore, they improved their self-care habits and reported having better familial and social

relationships. Geiger et al. (2016) in their review also emphasized that although a few clinical resources are available for working with older people, no manualized mindfulness treatments for this population have been published. Prior to moving forward with such a manual, we urge the research community to engage in rigorous study of mindfulness and gerontology.

In summary, the Covid-19 pandemic was found to bring about negative impacts on the elderly's mental health symptoms of depression, anxiety and stress and that women were found to be at higher risk of mental health problems during the pandemic outbreak. On the other hand, in analyzing the literature about the existing interventions, it is seen that the problems are not yet largely dealt so far. Therefore, this pilot study aims to test whether Mindfulness-Based Intervention (MBI) can reduce mental health problems of depression, anxiety and stress caused by the Covid-19 pandemic the female elderly has faced.

Methods

Design

This is a pilot study, using 1-group pretest-posttest design (simple panel design) with investigator-blinded survey administration used to measure the effectiveness of mindfulness-based intervention (MBI) in reducing mental health problems of depression, anxiety and stress among the female elderly affected by covid-19 with a study population of (n=20). A quantitative measure of emotional states of depression, anxiety and stress (DASS-21) was administered before and after a 6-week period of MBI activities to measure the effectiveness.

Participants

The study employed the Depression, Anxiety, and Stress scale (DASS-21), Vietnamese version to select participants. The scale was randomly administrated to 120 women (age over 60 years old) residing in Ho Chi Minh City, Vietnam. Out of the 120, only 20 met the condition of the scale and had mobile technology (e.g.: smart phone, laptop as requirements for online training) to be assigned to the intervention program. These female elderly were selected because the abovementioned recent studies revealed that in their emotional reaction to difficulties of the pandemic, they experienced more stress, anxiety and depression than men (Qiu et al., 2020). The population is relatively small because the purpose the study aims to pilot test whether the intervention program can have effectiveness in reducing the mental health problems of the participants.

Intervention

The current intervention consists of 2 modules with 9 sessions. Each session is expected to last between 45-60 minutes and the trainings were done online. Paired t tests were utilized to determine P values for significant difference of score results. In order to have a comprehensive understanding of the proposed intervention model, it is important to clarify the technical terms used as below:

- Physical Mindfulness (body scan technique). This refers to a process of moving attention from head to toes, observing sensations in the different regions of the body to enable participants to become aware of themselves physically;
- Mental Mindfulness (mantra technique). This refers to a meditation on a word/ phrase that gives one a meaning/ power of concentration when mental suffering arises such as self-negative judgment or unhappy thoughts about the self;

- Emotional Mindfulness (emotion anchor technique). This refers to a way of freeing from one’s own emotional sufferings using deep breathing to enhance awareness of what is happening in the body;
- Relational Mindfulness (metta technique/ loving-kindness meditation). This refers to a good intention or compassion one wants to extend to the self or significant others. In the context of social distance and isolation due to Covid19 pandemic outbreak, the relational mindfulness can be understood as an ability of the elderly to use mobile technology applications such as Video platforms: e.g. Zoom, Skype, Face-time (iPhone); Audio platforms: e.g. telephone calls, advice etc.; Text platforms: e.g. Messaging, chat mode (Healy & Goldberg, 2020) to get in touch with family members, relatives, friends, and to address their needs during the Covid-19 social distance or isolation.
- Spiritual Mindfulness (centering meditative prayer). This refers to a way of adding depth of meaning and building of faith through the grace of contemplation on a meaningful word that best supports one’s sincere intention. In the context of social distance and isolation due to Covid19 pandemic outbreak, the spiritual mindfulness can be understood as prayers for oneself and others to have ability to face the pandemic in healthy way.

Results

Paired sample statistics in table 1 and Paired sample test in Table 2 showed that: 1) the mean pretest score for depression is 26.6, while the mean posttest score is 13.0. These data were subjected to t test for paired sample, with the results showing a statistically significant gain ($t = 31.9$; $n = 20$; $p = 0.00 < 0.05$). The effect size is 10.4, which means that the posttest scores are more than a standard deviation better than the pretest scores. This is considered a high effect size; 2) the mean pretest score for anxiety is 17.5, while the mean posttest score is 9.70. These data were subjected to t test for paired sample, with the results showing a statistically significant gain ($t = 22.1$; $n = 20$; $p = 0.00 < 0.05$). The effect size is 6.10, which means that the posttest scores are more than a standard deviation better than the pretest scores. This is considered a high effect size; and 3) the mean pretest score for stress is 30.7, while the mean posttest score is 16.7. These data were subjected to t test for paired sample, with the results showing a statistically significant gain ($t = 39.3$; $n = 20$; $p = 0.00 < 0.05$). The effect size is 12.0, which means that the posttest scores are more than a standard deviation better than the pretest scores. This is considered a high effect size.

Tables 1: Paired sample statistics

Factors of DASS–21	Pretest		Posttest	
	Mean	SD	Mean	SD
Depression	26.6	1.31	13.0	1.03
Anxiety	17.5	1.28	9.70	0.73
Stress	30.7	1.17	16.7	1.17

Table 2: Paired sample test

Factors of DASS–21	Mean	Significant difference of Paired Sample test	Effect size
Depression	Pretest Posttest 13.6	$T=31.9$; $p= 0.00 < 0.05$	10.4
Anxiety	Pretest		

Stress	Posttest	7.80	T=22.1; p= 0.00<0.05	6.10
	Pretest	14.0	T=39.3; p= 0.00<0.05	12.0
	Posttest			

3. Discussion and Conclusion

As older people reach later and later life, they are more likely to be challenged with physical, mental, and social changes that require adaptation (Martin et al., 2008). COVID-19 has brought to them even more challenges because it is changing their routines, the care and support they receive, their ability to stay socially connected and how they are perceived. The old people are being challenged by requirements to spend more time at home, lack of physical contact with other family members, friends and colleagues, temporary cessation of employment and other activities (WHO, 2020). Literature reviewed above has showed that these challenges have brought about mental problems for the older people, concretely: depression, stress and anxiety. Evidence suggests that mindfulness practice may be beneficial to older adults who are struggling to cope with mental health difficulties because it enables the people to be aware and awake to the present moment, to stay in touch with oneself and others, to bring our body and mind into harmony, and one can practice anytime and anywhere. With mindfulness, we are aware of what is going on in our bodies, our feelings, our minds and the world, so that we can avoid doing harm. Mindfulness protects us, our families, and our society. When we are mindful, we can see that by refraining from doing one thing, we can prevent another thing from happening. We arrive at our own unique insight. It is not something imposed on us by an outside authority. Practicing the mindfulness trainings, therefore, helps us be more calm and concentrated, and brings more insight and enlightenment." (Thich Nhat Hanh, 2005). For this reason, it is important to implement mindfulness interventions in elderly people because they can reduce mental health problems of depression, stress and anxiety as the consequences of social distance, isolation during the Covid-19 pandemic. The main goal of this study was to answer the question whether Mindfulness-Based Intervention can reduce mental health problems experienced by the elderly during Covid-19 outbreak. Though given to a small population of 20 participants, the result of the current study showed that the participants after mindfulness training reduced their levels of mental problems consisting of three factors: depression, anxiety, and stress. This result suggests that the MBI is effective in reducing mental problems of the elderly as purposed.

The current results that mindfulness-based intervention could reduce depression, anxiety and stress levels has been consistent with previous findings of Ernst et al. (2008); Gallegos et al. (2013a); Lenze et al. (2014); O'Connor and Hougaard (2014); Splevins et al. (2009); and Young and Baime (2010). For examples, these researchers found that mindfulness-based interventions were associated with significant declines in loneliness, depression, anxiety, stress, sleep problems, and rumination, as well as significant increases in general mood and positive affect. The present findings were also found to offer support to the recent results of Khoury et al. (2013), and Khoury et al. (2015) that mindfulness-based interventions for emotional wellbeing of older adults had large effects in reducing anxiety, depression, stress. Our current findings were also found to be similar with the most recent findings of Spijkerman et al. (2016) and Querstret et al. (2018) who reported that online mindfulness-based interventions had a significant effect in reducing depression, anxiety and stress.

It is possible to say that the decrease of depression, anxiety and stress levels among the participants in the current study comes from practice of mindfulness including attention regulation, body awareness and sustained attention to physical sensations, emotional regulation through acceptance without judgment, emotional regulation through exposure, extinction of automatic responses and reconsolidation, and changes in self-perspective that involve a greater disregard for a rigid image of the self (Hölzel et al., 2011). This decrease also comes from the practice of relational mindfulness with the acquired skills of using mobile technology applications such as Video platforms: e.g. Zoom, Skype, Facetime (iPhone); Audio platforms: e.g. telephone calls, advice etc.; Text platforms: e.g. Messaging, chat mode (Healy & Goldberg, 2020) to get in touch with family members, relatives, friends, and to address their needs during the Covid-19 social distance or isolation. According to a recent study, such applications (apps) could provide a valuable tool to help families stay connected, and to help the elderly maintain mobility and link them to resources that encourage physical and mental well-being during social distancing or self-quarantine (Healy & Goldberg, 2020). Evidences from several studies found that mindfulness was effective in increasing social connectedness and reducing stress and anxiety (Cohen & Miller, 2009), and that a person's ability to be mindful can help respond well to relationship stress and the skill in communicating one's emotions to a partner, for examples: mindfulness was found to be positively associated with the ability to express oneself in various social situations (Dekeyser et al., 2008).

The findings of this study should be seen in light of its limitations: The first limitation is that the participants of this study were relatively small and they were old people. Many of those whom we called to invite for online screening test for being assigned to the online training program were not familiar to or had difficulties to adapt themselves to digital technology, hence the small size. On the other hand, as mentioned, the research took place in the context of Covid19 outbreak. This is a hard time in which meeting in person for training was not advisable or allowed, so online training itself was a limitation and training for the abovementioned old people was even more difficult. The second is that the current research lacks of previous research studies material for references.

Based on the abovementioned findings, the following suggestions came up:

Since the Mindfulness Intervention Program initially proved to be effective in reducing the mental health problems of depression, anxiety and stress in the female elderly who have faced the Covid-19 pandemic, it is, therefore, strongly recommended that guidance counselors be encouraged to implement the intervention program for the female elderly. Social workers and psychologists are highly recommended to be included in the training since the program offers a highly relational understanding of mindfulness practice that supports moment-by-moment work with groups and individuals. Everyone with an interest in helping others to enhance self-compassion using mindfulness intervention should give the participants specific instruction and techniques and more practice since the observations from this pilot experimental study revealed the more the participants apply the techniques they learned in the treatment sessions, the more they get motivated to practice and the more they practice, the more they feel better. The finding further suggested that the participants in the mindfulness training indeed experienced the techniques and that those techniques are helpful and easy to apply at any convenient time and place. For this reason, mindfulness is encouraged to practice because if one does a little of everyday practice, a

little of mindfulness is cultivated. If one does more everyday practice, and adds to this regular formal practice and retreat practice, the effects are more dramatic (Lazar et al., 2005).

As mentioned, this pilot study is to test if the program is effective, hence a small sample size with 20 participants for intervention. However, the analyses of outcome data for the study hypotheses yielded statistically significant results as described in the summary of results. This suggests that further research using larger sample sizes and different populations may be worth conducting, especially to male older people. Future study should also investigate factors that may predict the level of mental health problems and include follow-up assessment to determine whether the benefits of this current mindfulness-based intervention are enduring in reducing the mental health problems among the female elderly in unexpected situations as such social distance, isolation.

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A Study on the Agent of Multilevel Marketing (MLM) in Sabah

Shaierah Gulabdin^{1*}, Toh Pei Sung¹, Stephen Laison Sondoh¹

¹ Faculty of Business, Economics and Accountancy, Universiti Malaysia Sabah, Kota Kinabalu, Malaysia

*Corresponding Author: shaierahgulabdin@gmail.com

Abstract: *The MLM industry is projected to increase attention and contribute to the Malaysian economy's growth. However, in attracting and retaining agents in their positions, the Multilevel Marketing (MLM) industry faces challenges. Instead of the agent's sales performance-focused previously by many scholars, the researcher recently intends to focus on the agent's performance individually where it is regarded as the service quality based on contextual performance. In Sabah, there is an inconsistency of the MLM agent's performance as it is hard for them to retain their downline to stay in the MLM business, and there is a lack of upline's support or identification. Previous studies and literature have been analyzed to identify existing practices and gaps. This study examines the influence of interpersonal identification between personality and the agent's performance, especially in the Sabah Multilevel Marketing (MLM) industry. This study uses the Big Five Factors (BFF) of personality traits. The major five variables alone do not describe the agents adequately. The agent's interpersonal identification will play a major role in predicting the agent's success in the big five-factor model. By increasing the success rate of multilevel marketers, reducing unemployment, and making a positive impact on the economy, implementing the strategies outlined in this study will lead to social change. This paper adds value and contributes to the MLM industry and academia.*

Keywords: Direct Selling, Network Marketing, MLM Business, Agent's Performance, MLM Industry

1. Introduction

These days, there are many opportunities for people in search of running their own business. Many individuals are attracted to the Multilevel Marketing (MLM) industry because of the convenience of career growth and opportunities (Williams, 2018). Malaysia's direct selling industry is expected to contribute RM20 billion to the Malaysian economy by 2020, says the former Minister of Domestic Trade and Consumer Affairs (Malay Mail, 2018). It is believed that the MLM industry is a significant contributor to the Malaysian economy.

Recently, based on a report by the Malaysian Direct Distribution Association (2020), direct sales in Malaysia grew between 20% and 30% throughout the Movement Control Order (MCO) period. Many are looking for ways to earn more income now, while others may see MLM as an opportunity to run their own business (The Edge Malaysia, 2020). Currently, each country in Malaysia is affected by the MCO, and Sabah is one of the countries with a high unemployment rate for both men and women, which is at 14%, followed by the Northern Peninsular states Kedah, Kelantan, Perak, and Perlis at 11%. In Sabah, the unemployed youth were advised to get involved in the business, and one of the businesses is direct selling business (The Borneo Post, 2018). As a matter

of fact, according to the Ministry of Education (2019), it is stated that direct selling became one of the chosen business platforms by the fresh graduates, where it is at 5% to 8% of their involvement. The increasing awareness regarding this business's existence, particularly in Sabah, can be seen as the people start to get into the MLM industry as it is equipped with good systems.

2. Literature Review

Personality, Interpersonal Identification and the Agent's Performance

Abe and Mason (2016) studied the role of individual; interpersonal relationships on work performance found that the relationship between interpersonal relationships and employee performance for the supervisors was weak, while a less significant association was observed among the variables for the subordinate workers. The previous researchers hypothesize that managerial support will increase interpersonal identification in a sales context because salespeople respond to leadership. A leader can improve their team's self-concept, particularly in the inherently competitive sales landscape (Eisenberger et al., 2002). Essentially, this excessive identification (Avanzi et al., 2012) prohibits the salesperson from utilizing all available resources to complete job tasks (Aron et al., 2004), reducing self-efficacy and, ultimately, sales performance (Sluss & Ashforth, 2007). A sales manager has many roles, but none is more important than supporting their sales team. This trait determines how we feel about ourselves and influences how we internalize the values and beliefs of the organizations we join (Ashforth et al., 2016). It is generally agreed that interpersonal behaviors are influenced by personality, and that understanding relationships between personality and behaviors offers insights valuable to achieving desired group outcomes (Jeong, Bozkurt & Sunkara, 2012; Forrester, Tashchian & Shore, 2016).

Agreeableness is a significant predictor of work success, according to Tett et al. (1991). The development and growth of interpersonal identification, both acceptability characteristics, are partly a function of warmth and kindness (Sprecher & Regan, 2002). Klein, Lim, Saltz, and Mayer (2004) found that friendly people are central to networks of friendship, possibly because of their desire for close relationships (Graziano, Jensen-Campbell, & Hair, 1996), their willingness to provide others with social and emotional support, and their ability to accept new friends. Agreeableness people are prepared to pursue interpersonally cooperative conditions and take (Barrick et al., 2002; Wiggins, 1991). Agreeableness individuals aim to cultivate interpersonal relationships that are fun and harmonious (Ilies et al., 2009) and improve group cohesion (Graziano et al., 1996). People tend to be friends with extremely agreeableness because the relationship has less irritation (Berry et al., 2000). They like other individuals more and, in return, appear to be appreciated by others.

A large portion of the difference for acceptance, relationship, and relationship consistency was compensated for by conscientiousness (Jensen-Campbell & Malcolm, 2007). Similarly, consistent correlations of interpersonal identification with conscientiousness were identified, in line with previous studies (Ahmetoglu et al., 2010; Engel et al., 2002). These studies collectively indicate that citizens can develop a greater sense of interpersonal identification once they become more attentive. Therefore, the value of personality as both a trigger and how relationships become and stay positive and effective, and how they may communicate to influence adjustment, is vital for relationship researchers. Barrick et al. (2009) published a meta-analysis analyzing the degree to which the five-factor model's personality aspects are linked to work success concerning

interpersonal experiences. The research concluded that conscientiousness is favorably correlated with success in activities, including interpersonal relationships, as personality aspects.

Low-neuroticism conscientious leaders, who exercise sincere leadership, can introduce meaningful social impact by eliminating corrupt behaviors, enhancing contact with employers, staff, and clients, and improving staff productivity (Baptiste, 2018). Emotionally stable individuals have more productive relationships with others because they have higher empathy, forgiveness, and even-temperedness, contributing to less conflict (Berry et al., 2000; Walker & Gorsuch, 2002). Emotionally stable people, a fundamental requirement for developing and preserving interpersonal relationships at work, are more likely to be liked by others (Xia, Yuan, & Gay, 2009).

Performance levels improve because social ties help sustain productivity through coworker support (Chiaburu & Harrison, 2008). Further, informal learning is more likely to occur between coworkers with higher-quality relationships, leading to higher learning (Eraut, 2004) and increased performance. When the agents identify with their manager, they expand their self-concept to include that manager's resources. For example, knowledge, information, experience, etc. They also learn what values are held by that manager concerning firm goals (Vieira et al., 2018). It is supported that a manager with a strong customer orientation may rub off on the sales team if the team identifies strongly with it (Mullins & Syam, 2014). Besides, the sales team performs better by adopting this orientation and better fulfilling customer needs (Ashforth et al., 2016; Aron et al., 2004). Using this logic, the researcher predicts that potent agents who identify with their manager will adopt the values and utilize the resources to meet or exceed both company and managerial expectations (Siders et al., 2001).

Thus, the researchers suggest implementing a concept towards finding out the results of the agent's performance in MLM context and included interpersonal identification as a mediator that belief could influence individual personality towards achieving high performance of an agent.

The researcher took the opportunity to narrow investigate, specifically in Sabah. However, agents' performance in the MLM industry, specifically in Sabah, has not received broad research interest. Before conducting this study, the researcher finds out issues or problems through the relevant news and data statistics in Malaysia, unstructured interviews to get information regarding the MLM industry in Sabah. The questions consist of the reasons why people join MLM companies in the first place, why they stay on as a member of the MLM company, is there any achievement, what are the challenges in achieving their goals, what motivates them to join or remain doing MLM business till success and how is their performance. Initial data collected through interviews. The type of interview conducted is an unstructured interview where is also known as a preliminary interview. For the study's initial phase, interviews were conducted on 15 individuals selected from those residing in Kota Kinabalu and Tuaran, currently involved in MLM. Below is the respondent's profile and answers:

Table 1: Respondent's Profile

	Demographic Profile	Percentage
Gender	Female	86.7%
	Male	13.3%
Age	21 years – 30 years	80%
	31 years – 40 years	20%
	41 years – 50 years	-
Marital Status	Single	53.3%
	Married	46.7%
Education	SPM	-
	STPM/Diploma	66.7%
	Degree	13.3%
	Master	20%
	PhD	-
Occupation	Public Sector	60%
	Private Sector	6.7%
	Non-working	33.3%
Designation in MLM	Ordinary Member	-
	Agents	66.7%
	Top/Executive Level	33.3%
Length of Time in MLM	1 month – 2 years	20%
	3 years – 5 years	80%
	More than 5 years	-
	Given up/No interest	-

The table above shows the profile of the respondents. The female respondents are 86.7%, and the male respondents are 13.3%. Referring to the respondents' age, the number of respondents from 21 years old to 30 years old is 80%, and 31 years old to 40 years old, 20%. The numbers of single respondents are 53.3%, whereas the number of married respondents is 46.7%. The number of respondents with STPM/Diploma is 66.7%, Degree 13.3%, and Master 20% for education. Besides, 60% are working in the public sector for the respondents' occupation, 6.7% are working in the private sector, and non-working respondents are 33.3%. Besides the MLM respondents' designation, there are 66.7% as agents/distributors/stockiest, and 33.3% as the top/executive level. Additionally, table 1.3 shows that the respondents' length of time as agents in the MLM industry is 20% of 1 month to 2 years and 80% of 3 years to 5 years. The respondents' achievements in the MLM show that 40% successful, 33.3% moderate, 20% of respondents not successful, and 6.7% are very unsuccessful. Below are the lists of answers of the respondents during the interview:

Exhibit 1: List of Reasons for Joining MLM

Because of the products and suggested by my friend, using the products and as a source of income, following a friend, because at that time the upline is so supportive and the products are good, following my friend and I want to challenge myself, following my sister, side income, just to fulfill my hobby and as my new interest in business, following my sister, low startup cost, free training and of course the products, side income and supported by mentor, just for fun, just want to try my luck, interested in becoming an entrepreneur and involve in business, to get extra income and following friends.

Exhibit 2: List of Reasons for Stay on as a member of the MLM company

Because of the products and the marketing plan (if you achieve target points, you will be appreciated by the MLM company through sponsored vacation), to get the lower price or member price (discount), I do not want to stay for too long because not many MLM company last long, the products and support from family and friends, to get discounts for each item or products and following friends, just want to try my luck in MLM, to get discount in buying all the products, to achieve target points, get sponsored vacation and member price, the products and discount, good system, I do not want to miss the motivation and coaching session with leaders, wide benefit (vacation, rewards, and good support system), support from the mentors.

Exhibit 3: List of Challenges of Issues in Achieving the Goals

To retain others to join this business, not enough money (do not have enough target points as there were no sales done), people nowadays consider MLM as scamming (it is hard for me to ask them to join the MLM business), upline not supportive (demotivated), it is hard to approach people to join the MLM business, do not have fixed income to consistently buying products every month, do not have time to promote the products, very challenging in way to convincing and approaching customers to join or buying products (as the people have their own perspectives and mindsets in assuming the MLM company), it is hard for me to consistently approach people to join MLM business, hard to maintain my performance in the MLM (need to encourage and convince people to join and buy products so that I will earn a lot), other criticism and way to retain customer, too many competition and way to approach people to join business or buy the products, need to be good in managing time (between doing business and household), performance inconsistency, not easy to retain others to stay in the MLM business.

Exhibit 4: List of Motivation in Joining and Remain doing MLM business until success

Previous experience shared and led by example through the mentor/upline guidance (coaching session), the marketing plan, products and support given by the mentor/upline through sharing, I am interested with the supportive relationships among the upline and downline, will remain doing MLM especially when there is new MLM company the percentage of gaining profit is higher, if the mentor/upline is good to me (supportive) I am willing to join meetings conducted and achieve increase performance, motivated with the mentor/upline's experience in overcomes obstacle in MLM's business, motivated by my sister and the knowledge shared by mentor/upline, motivated by the succeed of mentor/upline in MLM, good relationship (cooperation) with other agents of MLM increased in my performance every month, always motivated by the upline's success and the MLM's system, mentor's support and my big why (family and friends), guidelines provided, the influence of the upline and family they believe

that I can widen my business through the system provided in MLM, when many people join it will be a satisfaction for me, advertisements of products delivered, coaching is given, got rewarded if performance increased, flexible time, the mentor/upline's influence.

Exhibit 5: List of How the Agent's Performance

Increasing, not consistent, decrease, decrease, not consistent, not consistent, decreasing, increase, increase, increase, maintain, not consistent, not consistent, not consistent, consistent. (i.e., motivated/demotivated, identified/not identified by the upline/mentor)

The findings obtained from the researcher (Interview, 2019) to gauge initial insight into the phenomenon in Sabah and indicate that most of the agent's performance is 60% inconsistent. Furthermore, 66.7% of respondents are agents; most of the Sabahan are doing this business recently, and 33.3% are at the top/executive stage. The respondents were joining and stay to do MLM business primarily because of their upline or mentor's influence in the MLM, back to the reasons mentioned in the interview. The respondents' accomplishments in the MLM indicate that 40% are successful, 33.3% are moderate, 20% are not successful, and, unfortunately, 6.7% are very unsuccessful. There is a list of problems in achieving the respondent's target, where their performance is inconsistent as it is difficult for them to sustain their downline to remain in the MLM industry, plus there is a lack of upline or mentor support and identification. It is impossible to encourage and approach consumers to enter or purchase goods when they assume the MLM industry of their opinions and mindsets (Interview, 2019).

MLM has become so popular because it offers everyone the chance to become an excellent self-employed opportunity with the freedom to gain and little losses. However, because of the ease of entry, the vetting process by recruiters is not as firm in many examples, and so most of the entrants into this type of business venture lack the necessary skills and competencies to accomplish goals (Isac & Isac, 2011; Omar, 2014; Franco & Gonzalez-Perez, 2016). The MLM industry is projected to increase attention in 2020 and contribute to the Malaysian economy's growth. Besides, based on the reputation improvement and performance cultivation of direct sellers provided by KPDKK, the MLM should be particularly essential for long-term relationships between consumers and the agents, which will have a high value-added to the services. These are some of the social factors that industry players need to consider. As a matter of facts, there is 60% of the inconsistent performance of the agents, as it is difficult for them to sustain their downline to remain in the MLM industry, specifically in Sabah, and this particular context has not received broad research interest, where there is a lack of upline or mentor support or identification (Interview, 2019).

Hence, the aim of this study is:

- To explore the mediating role of interpersonal identification on the relationship between personality and the agent's performance.

It is compelling to know what factors influence and motivate individuals to become MLM companies (Williams, 2018). A previous study has shown that personality is vital to a salesperson (Espegren & Panicker, 2015). This notion was supported by Roberts and Woodman (2017) as they urged for more attention given to personality concerning performance in the MLM industry. The

authors have identified individual and performance personalities as a critical issue and an emerging area of discussion in this context. The extent to which these personalities influence the MLM or sales agent's behavior and performance has remained mainly uninvestigated in a particular context (Alexander & Goh, 2018). They suggested that further study needs to consider the personality and attitude of the individual, which may contribute to their working passion and higher aim engagement in achieving career development in MLM. Besides, interpersonal identification has been acknowledged as one factor influencing performance (Ahearne et al., 2013; Vieira et al., 2018). However, the context so far lies in organizational identification, which neglects the relational level's interpersonal identification processes (Vieira et al., 2018).

3. Conclusion

The outcomes of this research will give valuable insights, especially to the practitioners, such as the downline, upline, mentors, sales managers, distributors, executives, supervisors, and human resource managers, by signifying which combinations of factors can best predict better agent's performance in particular instances. Hence, assist proper decision as regards recruiting potential agents to work in the MLM industry. When hiring new agents, the desirable traits of agents working in a specific area should be considered.

However, having an exact character alone will not be enough for MLM agents to retain in the industry. The MLM industry leaders must play their role in support through training, relationship building, which is part of the MLM culture and values, attract agents, and keep them in the organizations. These will contribute, sustain, and increase their agent's performance in the future and have a keen interest in the MLM industry.

Most importantly, they will contribute to Malaysia's economy, and the people's economy, specifically in Sabah.

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Analysis of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG)

Fia Dialysa^{1*}

¹ Management, Ekuitas Business School, Bandung, Indonesia
Doctoral Student in Economics of Parahyangan Catholic University, Bandung, Indonesia

*Corresponding Author: fdialysa@gmail.com

Abstract: *The existence of the Corona Virus (Covid-19) pandemic event not only poses a threat to health but also economic growth in a country. Corona Virus Disease 2019 (Covid-19) has significantly changed the world economy. The impact of the spread of the Corona Virus (Covid-19) cannot be calculated with certainty. However, the economic system slowdown has already been felt, especially in the industrial, tourism, trade, transportation, and investment sectors. It cannot be avoided as well as Indonesia, the increase in positive cases of Corona has brought effects to the stock market (iNews.id). As a result, the Composite Stock Price Index (IHSG) experienced a significant decline. The phenomenon of rare events that have a big impact, are difficult to predict, and are beyond the usual predictions is called the Black Swan Event or the Theory of Events of the Black Swan. (Kiky, 2020). The purpose of this study is to determine the events, influencing factors, impacts, and solutions of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia. The targeted outputs are international journals. The results showed, 1)The Black Swan incident occurred in early January 2020, where the stock and bond markets experienced a very significant decline. 2)External factors, namely the Covid-19 Pandemic, are the most dominant things affecting the JCI in Indonesia. 3)The impact is that the increasing number of Covid-19 patients, the worse the JCI and the exchange rate will also be worse 4) Solutions that must be done are 4 focus and 5R.*

Keywords: Black Swan Event, Covid-19 Pandemic, Composite Stock Price Index (IHSG)

1. Introduction

The Covid-19 pandemic first emerged from Wuhan City, China at the end of December 2019, is a situation where the Covid-19 virus outbreak has emerged and has not ended yet. This virus outbreak caused respiratory problems in humans which resulted in the city of Wuhan, where the outbreak began, having to decide on a lockdown to inhibit the spread of the virus. The existence of the Corona Virus (Covid-19) pandemic event not only poses a threat to health but also economic growth in a country. Corona Virus Disease 2019 (Covid-19) has significantly changed the world economy.



Figure 1: Indonesia's Economic Growth

Based on Figure 1, from 2013 to 2014 there was a 9.89% decline in growth. The next decline, in 2014 amounted to 2.59%, in 2015 at 3.07%. In 2016 it rose 0.79% until the following year there was an increase of 1.97%, and 1.35%. In 2019, economic growth has decreased again by 5.88% until 2020.

The impact of the spread of the Corona Virus (Covid-19) cannot be calculated with certainty. However, the economic system has slowed down, especially in the industrial, tourism, trade, transportation, and investment sectors. It cannot be avoided as well as Indonesia, the increase in positive cases of Corona has brought effects to the stock market (iNews.id). As a result, the Composite Stock Price Index (IHSG) experienced a significant decline.



Figure 2: Development of the Composite Stock Price Index (IHSG) 2020

In figure 2, the JCI at the beginning of 2020 was at 6,300 and fluctuated never falling below 6,000 until the end of January 2020. However, the direction of the index movement changed drastically in early February 2020. The decline in the JCI value even continued until March 2020. The JCI was Initially it was at 6,000, losing almost 50% of that value when it was in early March 2020. Until August 7, 2020, JCI was still closed in the red zone with minus 18.34%. The drop in this

index that occurred in March 2020 which was almost 50%, is an extraordinary event (sindonews.com).

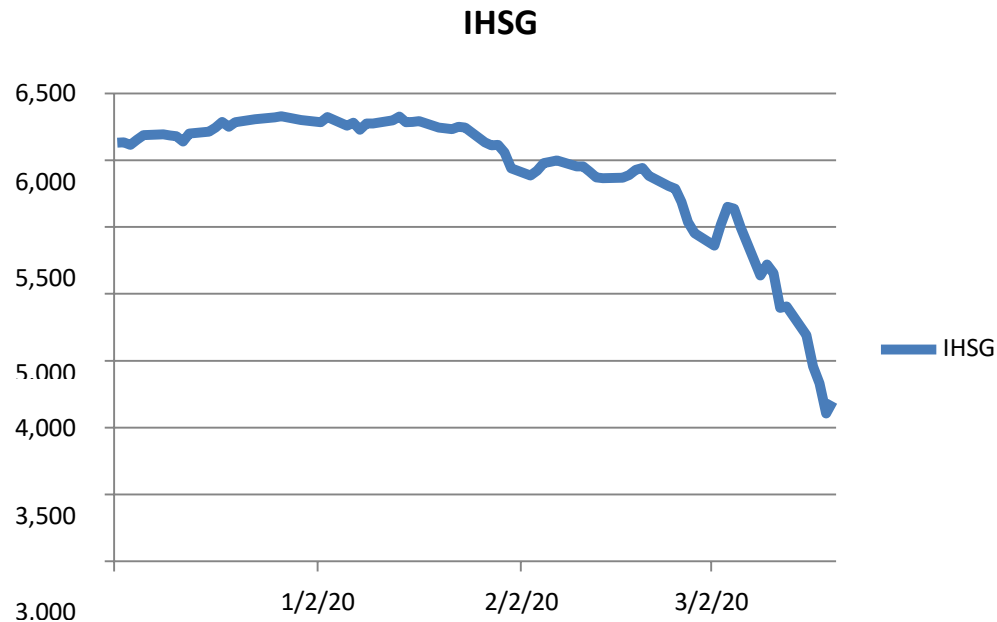


Figure 3: Composite Stock Price Index (IHSG)

Figure 3 shows a downtrend that occurred almost 50% from the beginning of December 2019. This situation occurred on March 2, 2020, when the government first announced a lockdown to the public.

The phenomenon of rare events that have a big impact, are difficult to predict, and are beyond the usual predictions is called the Black Swan Event or the Black Swan Event Theory. (Kiky, 2020). The problems to be studied:

1. How did the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia occur?
2. What are the factors that influence the occurrence of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia?
3. What is the impact of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia?
4. What is the solution if the Black Swan Event occurs again in the future?

The objectives of this research are:

1. To find out about the Black Swan Event in the Covid-19 Pandemic Era that occurred on the Composite Stock Price Index (IHSG) in Indonesia.
2. To find out the factors that influence the occurrence of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia.
3. To find out the impact of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia.
4. To find out the solution that must be done if the Black Swan Event occurs again in the future.

The urgency of this research is:

1. For investors, it can be input in making decisions to get the expected results.
2. For companies, it can be input and information so that it is sustainable.
3. For the Government, this can be used as material for consideration /input in making policies.
4. For the community, it can be taken into consideration in investing in shares.

2. Literature Review

In this study, the theory used is as follows:

1. Grand Theory: Management
2. Middle Range Theory: Financial Management, Signaling Theory, Investment Theory and Black Swan Theory
3. Applied Theory: Composite Stock Price Index (IHSG), The Covid-19 pandemic.

Grand Theory is the basis for the birth of other theories at various levels, called macro because these theories are at the macro level. Middle Range Theory is a theory that is at the mezzo/middle level where the focus of the study is macro and micro, while Applied Theory is a theory that is at the micro-level and is ready to be applied in conceptualization (Arikunto, 2010).

1. Grand Theory: Management

Management is a process of working together for two or more people to achieve organizational goals by planning, organizing, directing, coordinating, and controlling to achieve organizational goals effectively and efficiently using human resources and other resources (Effendi, 2015: 5). Management has specific goals and is intangible. The attempt is to achieve specific results; usually expressed in the form of goals. The efforts of the group support the achievement of that specific goal. Management can be stated as intangible, because it cannot be seen, but the results can be felt, namely sufficient work output, personal satisfaction, better products, and services (Terry, 2013: 10).

2. Middle Range Theory

- a. Financial management is an amalgamation of the arts that discusses, studies, and analyzes the role of a financial manager in using all company resources to raise funds, manage funds, and share funds with shares and business sustainability for companies (Fahmi, 2015: 2). The purpose of financial management according to Harmono (2016: 8) is to maximize shareholder wealth, which means increasing company value, which is a measure of objective value by the public and an orientation to the company's survival.
- b. Signaling Theory. Michael Spanse was the originator of this theory in 1973, showing that investments made by companies provide a signal, especially to investors creditors, that the company will grow well in the future, namely by increasing stock prices as an indicator of company value. This theory emphasizes the importance of the information issued by the company on investment decisions outside the company. Signaling theory argues that the existence of information asymmetry can be taken as an excuse for companies that use financial information to transmit signals. The information published is an announcement that will give a signal to investors in investment decisions. Through financial information, management will signal investors about the company's prospects and management will take investment actions

which it deems necessary to support the company's value as proxied by a price. shares are high and of course, will provide benefits to shareholders as investors (Aditya, 2012).

- c. Investment Theory. According to Tandelilin (2010) there are three main reasons why investment is needed, namely the existence of future needs that have not been able to be fulfilled, the desire to add to the value of assets owned and the existence of inflation. Investment can be defined as a form of fund management to provide benefits by placing these funds in an allocation which is expected to provide additional compounding benefits (Fahmi et al., 2011: 4).

According to Tandelilin (2010:8) states that there are several reasons for someone to invest, including the following: 1)To get a more decent life in the future. 2)Reducing inflationary pressure. 3)The urge to save taxes.

The investment objectives are (Fahmi et al, 2011:4): a. Creating continuity in the investment. b. Creation of maximum profit or expected profit (actual profit) c. The creation of prosperity for shareholders d. Take part in contributing to the development of the nation.

- d. Black Swan Theory. Black Swan Theory is a theory about unexpected events that have a big impact on human life. This theory was first introduced by Nassim Nicholas Taleb in his book "The Black Swan" in 2007. The word Black Swan originated in 1697 where previously humans believed all geese were white. Until one day, explorers from the Netherlands saw a black swan for the first time in Western Australia. Since then, the word black swan has been used to describe events that seemed unlikely (investor. id).

This theory explains (Kiky, 2020): 1)The disproportionate role of important, unpredictable, and rare events that are beyond normal expectations in history, science, finance, and technology. 2)Non-computing the probability of a consequential rare event using the scientific method (due to the nature of the small probability). 3)The psychological bias that blinds people, both individually and collectively, of uncertainty and the great role of rare events in historical affairs.

The Black Swan theory can be applied if there are the following characteristics (Kiky, 2020): 1)There are random events that move not following a pattern 2)Have a big effect or influence in the life of mankind 3)Appears unexpectedly, suddenly, and unplanned 4)After appearing, humans can explain by hindsight 5)Happening from things that are impossible to happen. Apart from the coronavirus pandemic, the existence of other "Black Swan" for example the terrorist attacks on September 11, 2001, and the tsunami in the Pacific in December 2004. Ben Bernanke, Former Federal Reserve Chairman, stated that the existence of "Black Swan" at this time, "This is a very different animal from the Great Depression" (CNBC, March 2020).

3. Applied Theory.

- a. Composite Stock Price Index (JCI) IHSG is a value used to measure the performance of shares listed on a stock exchange (Sri, 2012). The JCI describes a series of historical information regarding the movement of the combined share price of all shares up to a certain date. The JCI index calculation uses all listed companies as components. The Indonesia Stock Exchange (IDX) is an institution that has the right to control the IHSG to describe a fair market situation,

also has the right to exclude or not include one or several listed companies from the IHSG calculation. The index calculation explains the movement of stock prices on the stock exchange through the auction trading system. The share price used in calculating the JCI is the stock price in the regular market which is based on the price based on the auction system. The JCI calculation is carried out every day, namely after the close of trading every day.

According to Zulfikar (2016), factors that affect stock prices can come from internal and external factors of the company, factors that affect stock price movements, or the stock price index, namely:

a. Internal factors - Funding announcements, such as announcements related to equity and debt. - Announcements of the management board of directors, such as changes and changes in directors, management, and organizational structure. - Diversification taking announcements such as reports on mergers, equity investments, take over reports by acquirers, and on acquisitions. - Investment announcements, plant expansion, research development, and other business closings. b. External Factors - Announcements from the government such as changes in savings and deposit interest rates, foreign exchange rates, inflation. - Securities industry announcements, such as annual meeting reports, insider trading, trading volume or price, trading restrictions, or delays. - Domestic political turmoil and exchange rate fluctuations - Various issues both domestic and foreign.

b. The Covid-19 pandemic. According to WHO, a pandemic is the scale of the spread of disease that occurs globally throughout the world. An outbreak as a pandemic means that WHO is giving an alarm to the governments of all countries of the world to increase preparedness to prevent and manage outbreaks. This is because when a pandemic is declared, it means that there is a possibility of community spread occurring. In determining an outbreak as a pandemic, WHO has no threshold for the number of deaths or infections or the number of countries affected. This type 19 coronavirus appeared in Wuhan, China. The virus is then transmitted between humans through droplets of body respiration fluid through hands or solid surfaces. Until finally, this new type of coronavirus was also called Covid-19. Covid-19 stands for Corona (CO), Virus (VI) Disease (D), and 2019 (19), which is where the Covid-19 coronavirus first appeared in 2019. The World Health Organization (WHO) finally established Covid -19 to mention the coronavirus that is endemic around the world (www.cnbcindonesia.com).

3. Discussion and Conclusion

"Black Swan" was first introduced by Nassim Nicholas Taleb in 2007. In addition to the coronavirus pandemic, the existence of other "Black Swan" is the terrorist attack on September 11, 2001, in America, as well as the tsunami in the Pacific in December 2004 (CNBC, March 2020). Black Swan event can occur if: 1)The event was a surprise (to the observer). 2)The event had a profound effect. 3)After the first recorded event, it was rationalized looking back, as if it were to be expected; This means that relevant data is available but not taken into account in the risk mitigation program. The same is true of personal perceptions by individuals (Taleb, 2007).

The Black Swan Event on the Composite Stock Price Index (IHSG) took place in early January 2020, when the stock and bond markets experienced a very significant decline. Market optimism was suddenly interrupted by the Coronavirus outbreak which triggered foreign investment managers to shift their portfolios from the stock market to "haven" instruments, as well as forced

sale of several shares on the domestic market. So that the JCI is at 5,940 which is below the psychological level of 6,000. Where the previous year closed at the level of 6,299.5 (investor.id). The black swan phenomenon can be analyzed by looking at the daily and weekly return data from the JCI. The following is the daily return for the JCI from December 2019 to March 2020:

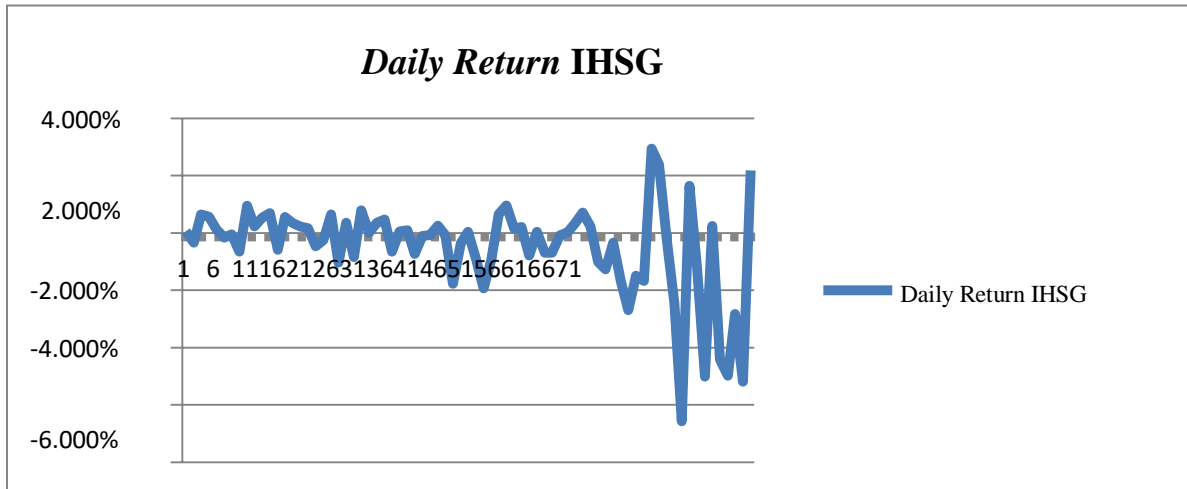


Figure 6: JCI Daily Return from December 2019 - March 2020

The daily movement of the JCI shows very high volatility at the end of the observation period (March 2020). The fluctuation of changes (return) in the JCI increased to reach 4-6% per day in that month.

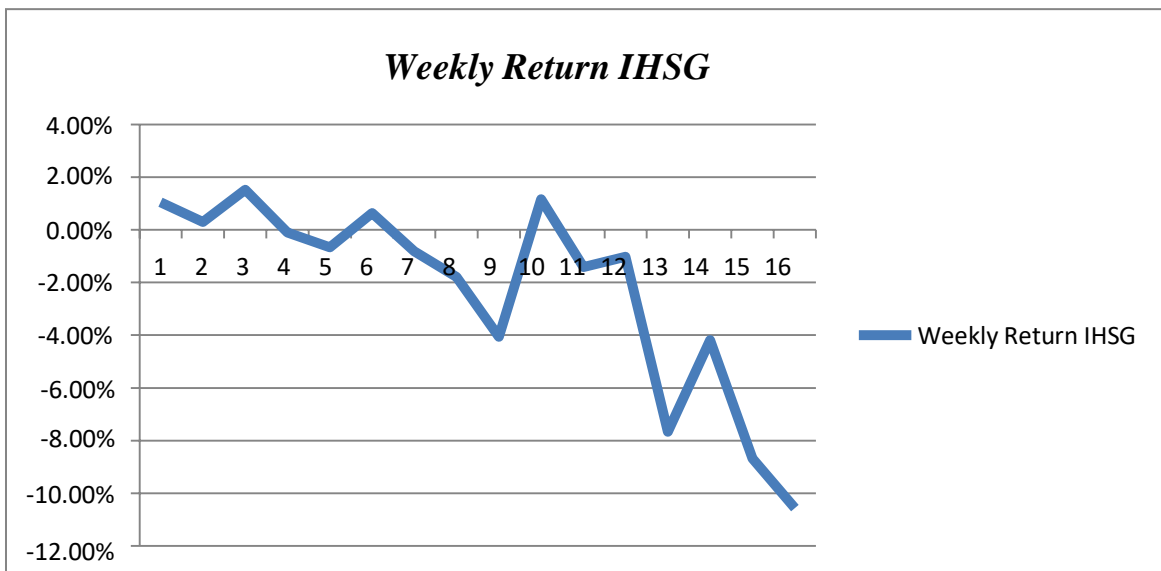


Figure 7: JCI Weekly Return from December 2019 - March 2020 Source: Kiky (2020)

Based on the JCI weekly return data, it can be seen that the JCI movement from early March to March 20, 2020, showed a decline of up to 22%. Based on the descriptive data, the most drastic downward trend occurred in March 2020. In the capital market industry, if there is a Black Swan Event, this moment can be used for several things, namely realizing profits if there is a rapid

increase in the price of investment instruments (profit taking) or investing in the event of a price correction (time to buy) (wartaekonomi.co.id).

According to Zulfikar (2016), factors that affect stock prices can come from internal and external factors of the company. Based on the factors that influence the JCI, the authors argue that external factors on foreign issues are very dominant, namely the Covid-19 Pandemic. The virus that originated in the Chinese city of Wuhan has spread throughout the world and is still ongoing. Though China is the largest supply chain for the trade sector. This pandemic caused a trade slowdown caused by massive restrictions on travel to other cities and countries in the world. Travel restrictions and the closure of some transportations have disrupted production, distribution, and consumption activities. (kompasiana.com). These circumstances force every company to become more resilient, including changes in extreme weather, changes in political upheaval, cyber-attacks, or subsequent outbreaks of disease. In addition, central bank policies in developed countries, particularly the Fed, have again pursued monetary easing, either through lowering interest rates or liquidity flows or quantitative easing (QE).

The impacts of the Black Swan Event in the Covid-19 Pandemic Era on the Composite Stock Price Index (IHSG) in Indonesia are: 1) The more Covid-19 patients get, the worse the JCI and Exchange Rate will be. So far, data from research is still very little, but indications have been found of the effects of Covid-19 on the Indonesian financial sector (capital market). (Kiky, 2020). 2) Investors who take advantage of the opportunity will sell their investments before experiencing a drastic decline in value when the government announces Covid-19. 3) The capital market has lost nearly 50% of its value. 4) The global economy is experiencing difficult times and is likely to experience recession and economic slowdown (kompasiana.com).

Solutions that must be done if the Black Swan Event occurs again at a later date. If the Black Swan phenomenon occurs again at a later date, several things can be anticipated by the company. A strong company must carry out 4 focuses to prevent the Black Swan phenomenon, these steps include: 1)building strong, trusted, and reliable relationships with customers 2)becoming the company of choice that can easily recruit and retain the best talent 3)protect revenue and reputation during the crisis 4)must achieve resilience, which must involve every part of the organization from the chief executive, business line leaders to technology leaders (Balaouras, 2020 in entrepreneur.bisnis.com).

According to McKinsey & Company (March 2020 in kompasiana.com), there are five stages (5Rs) to achieve a new balance so that the Black Swan Event does not occur again in the future, namely: 1)Resolve (Response), is a determination of how much the scale of the business response required and how to achieve it so that it is secure and sustainable. In addition, it is necessary to pay attention to the speed and depth of action required at the state, regional, and business levels. Decisions that may be taken later are lockdown or not, isolation or quarantine, closing the company or not 2)Resilience, which is making and developing clear plans for various possible economic scenarios 3)Return (Reactivation), namely starting or reassessing, and returning the business becomes successful down to the production level. 4)Reimagination, namely increasing business operations to be more resilient, and 5)Reforming, which is learning how to mitigate if the "Black Swan" scenario occurs again in the future.

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Are Science, Engineering, and Social Science Students Addicted to Social Media?

Fatima Zehra Allahverdi^{1*}

¹ Department of Psychology, Social Sciences University of Ankara, Ankara, Turkey

*Corresponding Author: zehra.allahverdi@asbu.edu.tr

Abstract: *The study asked whether Science, Social Science, and Engineering majors were predictors of perceived social media addiction. Students from a public university in the Middle East were surveyed. Perceived social media addiction was quantified on a scale of zero to one hundred. Of more than two hundred students, about forty percent perceived themselves as addicted to social media more than 75%. Results of the stepwise regression indicated that the overall model predicted perceived social media addiction. Science, Social Science, and Engineering majors explained 17% of the variance in perceived social media addiction. Students who were in the Engineering and Social Science majors perceived themselves as about 10% and 20% more addicted to social media compared to the students from the Science majors.*

Keywords: Perceived Social Media Addiction; Engineering; Social Science; Science

1. Introduction

Recent years have shown a tremendous increase in technology and with it came the internet. The internet has become “an integral thread in the fabric of the world” (Grau, Kleiser, & Bright, 2019). While initially computers and laptops were the common device for internet access, later they were replaced with cell phones. Cell phones allow people to access the internet and communicate with others instantly. With the increase of internet use, different communication methods also surfaced such as Facebook, Instagram, and Twitter (Okdie & Ewoldsen, 2018). Sixty-five percent of university students spend more than three hours online. In fact, nearly seven percent of the university students spend more than 40 hours on the internet per week (Cotten, 2008).

“Seemingly benign behaviors...through psychological, biophysical and/or environmental triggers [can] become harmful and morph into an addiction” (Grover et al., 2011, p.1). Addiction encompasses four stages. The first stage is non-use, the second stage is non-addiction use, the third stage is near-addiction use, and the final stage is addiction. The stages are based on how frequently the event is engaged, how much time is spent on it, how much self-control a person has, and the level of negative consequence (Grau et al., 2019; Martin et al., 2013). There are different types of negative consequences such as psychological, economic, social, or physical. An example of negative economic consequence would be how social media addiction causes burnout which negatively relates to job performance. The current study looked at self-perceived addiction of individuals. It is important to look at addiction because the symptoms of internet addiction are similar to that of people with depression, low self-esteem, disinhibition, and anxiety and hostility

(Widyanto & Griffiths, 2006), and social networking services addiction can lead to “salience, withdrawal, relapse, conflict, and mood modification” (Osatuyi & Turel, 2018, p. 95).

Research on social media is quite recent compared with internet addiction, which has been researched for a longer period of time (Grau et al., 2019). Social media addiction has become a major concern within the current technological world (Kircaburun, 2016) and is an evolving problem (Eijnden, Lemmens, & Valkenburg, 2016). The need to interact is one of the main reasons people use social media (Palfrey & Gasser, 2008). Thirty-five percent of Americans between the ages of thirteen and seventeen check their social media profiles more than once, in fact several times a day. When Facebook was examined seventy-six percent of the users were found to visit Facebook daily, with fifty-five percent visiting their account several times a day (Greenwood et al., 2016).

2. Purpose

The purpose of the study was to determine the predictability of Social Science, Science, and Engineering majors on the perceived social media addiction of students from a public university in the Middle East. How is the percentage of self-perceived social media addiction a function of Social Science, Science, and Engineering majors?

3. Methodology

In this study a stepwise multiple regression analysis approach was utilized. Linear relationships and strength of relationships can be identified using scatterplots and correlations. On the other hand, regression analysis quantitatively identifies how variables are related. “There are two potential objectives of regression analysis: to understand how the world operates and to make predictions” (Albright & Winston, 2010, p.531). Regression analysis provides the researcher with a formula of the relationship, allowing prediction of future cases.

The study included university students from a public university in the Middle East with English as medium of instruction. The total number of students surveyed were 231. The areas of study included in the study were Science, Engineering, and Social Science. Table 1 provides a breakdown of the participating students by area of study. Table 2 provides the list of majors for each area of study that participated in the survey.

Table 1: Participating Students

Majors	N of survey students
Social Science	68
Science	37
Engineering	126

Table 2: Majors by Social Science, Science, and Engineering

Study	Major
Engineering	Civil Eng. Chemical Eng.

	Computer Eng.
	Electrical Eng.
	Industrial Eng.
	Mechanical Eng.
	Petroleum Eng.
Science	Biochemistry
	Biology
	Chemistry
	Dietitian
	Geology
	Health S.
	Math
	Medicine
	Microbiology
	Nurse
	Physical Therapy
	Physics
	Public Health
	Systems
Social Science	Accounting
	Architecture
	Business
	Economics
	Education
	Finance
	Geographic
	History
	Law
	Marketing
	Mass Communication
	Theology
	Translation

There were more females (2/3) compared to males (1/3) in the study. This was due to the fact that the vast majority of the students in the university were females. Students from all years (Freshman, Sophomore, Junior, and Senior) were surveyed.

4. Measure

Participants filled in their gender, major, year, and perceived social media addiction. Since the survey was handed out as hard copies, the data was entered into a database. For reliability the entrees were double checked by a second researcher for error.

Participants had to circle either male or female for their gender. For major, participants had to write down their major. Students also had to circle their year, whether they were Freshman, Sophomore, Junior, or Senior. Perceived social media addiction was assessed with the following question, “To what extent do you feel addicted to social media?”, using a numerical scale from zero to 100.

5. Findings

A stepwise multiple regression was conducted to determine which independent variables were predictors of perceived social media addiction. The assumptions of normality, linearity, and homoscedasticity were all met. Multicollinearity was not an issue and no outliers were found. The study met the requirement of fifteen subjects per independent variable, which is necessary for a reliable regression equation.

The average addiction perception of social media was ($\bar{x} = 62.60$) with a standard deviation of ($sdv = 18.80$). Forty-one percent of the 231 students perceived themselves as addicted to social media between 75%-100%. Nine percent of the 231 students perceived themselves as addicted to social media 100%.

For the study, a multiple regression analysis was utilized. Table 3 provides the model summary for the regression analysis. Table 4 provides the coefficients for the final model. As seen in Table 3, regression results indicate that the overall model predicts perceived social media addiction, $R^2 = 0.17$, $R^2_{adj} = 0.17$, $F(2, 228)$, $p < .001$, with the independent variables accounting for 17% of the variance in the dependent variable. Table 4 on the coefficients of the final models reveals that all of the variables in the models are significant. The area of study explained 17% of the variance in perceived social media addiction, $R^2 = 0.17$, $R^2_{adj} = 0.17$, $F(2, 228)$, $p < .001$.

Table 3: Model Summary

Steps	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>adj</i>	<i>R</i> ² Change	<i>F</i> Change	<i>p</i>	<i>df</i> 1	<i>df</i> 2
Area of Study	0.42	0.17	0.17	0.17	24.02	< .001	2	228

Table 4: Coefficients for Final Model

Model	B	Beta	T	Model
Major (Social Science)	24.10	0.59	6.87	0.00***
Major (Engineering)	13.56	0.36	4.22	0.00***

**0.05 **0.01

The data was then used to create a multiple regression formula:

$$\begin{aligned} \text{Addiction Perception \%} &= 36.72 \\ &+ 10.92 \text{ Major (Engineering)} \\ &+ 20.10 \text{ Major (Social Science)} \end{aligned}$$

It should be noted that for the base of the regression formula, the area of study was the Science. Students in this category had an average of 36.72% perceived social media addiction. If for instance, the area of study was the Social Science, the perceived social media addiction would be 56.82%. To validate the formula, the data was split into two. In order to run the regression model,

more than two-thirds of the data was utilized followed by using the remaining to cross-validate the regression equation.

6. Conclusion

Perceived social media addiction was examined to determine if it was a function of phubbing frequency and area of study. Of about 250 students, about half of them perceived themselves as addicted to social media above 75%.

For the study, a stepwise multiple regression analysis was utilized. Thirty percent of the variance in the dependent variable was explained by the independent variables. The area of study explained 17% of the variance in perceived social media addiction. Compared to the Science, students who were in the Engineering and Social Science perceived themselves as more addicted to social media about 11% and 20%, respectively.

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Cognitive Methods in Concept Generation Principles towards Creative Ideation Process

Muhamad Nashahakim Sazili^{1*}, Nor Fasiha Mohd Yusof²

¹ Sekolah Kejuruteraan dan Sains Kreatif, Kolej Yayasan Pelajaran Johor, Johor, Malaysia

² School of Mechanical Engineering, Faculty of Engineering, Universiti Teknologi Malaysia, Johor, Malaysia

*Corresponding Author: nashahakim@kypj.edu.my

Abstract: *Design process is a process an engineer goes through in devising a solution of a problem. The design process steps should be followed to achieve goals of a project and compulsory to include the ideas and sketches of the whole process and the process requires both knowledge and creativity. This study focuses on ideation process during concept generation, in which creativity is the most utilized through designing. The aim of this study is to investigate the design process primitive on ideation during conceptual synthesizing process. The design process primitive is divided into two principle relation and three method classification. The principle relations are taxonomical relation and thematic relation. There are two method classification under principle relation which are 1st Method Classification based on metaphor concept and 2nd Method Classification based on blending concept. For thematic principle relation, it uses concept of integration and the method is 3rd Method Classification based on thematic relation. Until now, there is no data to prove the creative ideation process by understanding how concept generation of principle relation and method classification correlates with creativity of design output from the viewpoint of originality and practicality. Towards the goal, creativity expertise evaluation is proposed based on design experiment to study the correlation between the design creativity to the two types of principle relation and three kinds of cognitive method classification in concept generation. For that purpose, a number of engineering design students selected to be given a design task. The ideation of creative design evaluation is based on originality and practicality viewpoint and judged by design instructors as expertise.*

Keywords: Design Process, Creativity, Concept Generation, Principle Relation, Method Classification

1. Introduction

The purpose of this study is to identify type of cognitive methods used by engineering students that may contributes creative ideation process in concept generation principles and to determine the correlation between methods classification in concept generation principles with creativity of design output from the viewpoint of originality and practicality.

Previously, the study made assumptions that blending method and thematic method are made to relate more closely to produce a higher creativity in ideation process than metaphor method (Nagai and Taura, 2006). Previous studies that are related to concept generation principles also only justified the creativity and non-creativity design output by itself. There are many ways to evaluate the creativity in ideation of design output and one of the methods is method of Finke et al. (Finke,

1992). This method evaluated the creative design output based on the consideration of the originality and practicality viewpoints. Until now, there is still no data to show the creative ideation process by understanding how concept generation principles correlates with creativity of design output from the viewpoint of originality and practicality. So that this study is purpose to justify the assumptions of blending method and thematic method produce a higher creativity in ideation of design output than metaphor method by clarify the relation between concept generation principles of method classification with the originality and practicality viewpoints of creativity evaluation.

This study attempts to identify type of cognitive methods used that may contributes creative ideation process in concept generation principles of engineering students as subjects. For this purpose, a base concept is selected with the base and target object based on the high alignability and high thematic relation. Then, an experiment of design task is carried out in order to classify the principle relation and method classification of concept generation used by subjects. Further, the design task answered by the subjects also are evaluated by design instructors to measure the level of creativity in design. Finally, the correlation between method classification and creativity score is analysed.

2. Literature Review

Engineering Design

The engineering design activity is defined, in general, as a creative, iterative and often open-ended process of conceiving and developing components, systems and processes to satisfy real needs (Dixie, 2004). From the definition, it tells the design is actually started from the needs to achieve a goal through an over and over process and the criteria should be inventive and original.

Design Process

Many studies have been conducted to analyse the characteristics of the design thought process from the viewpoint of creativity. As a result, it has been found that concept-synthesizing processes, such as combining, blending or integrating two different concepts, are keys to creative thinking. Analogical reasoning and metaphor are known to play very important roles in creative design (Gero and Maher, 1991; Goldschmidt, 2001). For example, the ‘Swan chair’ is a famous example of design, which had been imaged using analogy. Its form resembles a swan, and users understand its message of ‘this chair is soft and elegant like a swan’. Chairs designed using analogical reasoning resemble a swan, a mushroom and a helicopter. Its message is that ‘this is a new object that will induce mellow feelings in your daily life’.

Creative Design

From the viewpoint of mental cognition in the domain of cognitive science, Finke et al. (Finke, 1992) described conceptual synthesis as an efficient means of developing creative insights into new inventions and carried out experiments on creation as mental products generated by imagery synthesis. For supporting human creativity, it has been pointed out that it is significant to develop creative thinking that is related to the transforming of concepts (Boden, 2004). Creative thinking is comprehended as conceptual space (Gardenfors, 2000). On the other hand, in studies on cognitive linguistics, (Fauconnier, 1994) focused on the construction process of meaning in ordinary discourse. He analysed how conceptual integration creates mental products and how to deploy systems of mapping and blending between mental spaces. From the viewpoint of mental

space theory, he showed that conceptual integration operates on two input mental spaces to yield a third space which is called 'the blend'. That blended space inherits partial structures from the input spaces and has emergent structures of its own. Both mental products, imagery and discourse, have shown emergent features and they have stimulated creativity. Fauconnier and Turner suggested that a watch is designed by conceptual blending (Fauconnier and Turner, 2002)

Concept Generation

To generate creative ideas, concept generation is one of important process should be considered. There is less restriction during this process to generate ideas and design for some creative product. Concept generation is a pre-design phase before enter design phase (conceptual design) and post design phase (detail design). Several ideas and concepts are generated and it is divergent phase where many possibilities are considered without too much judgement. Usually the conceptual design must be documented using sketches including descriptions and it is compulsory to generate at least three alternatives conceptual. Although it has been pointed out in many studies that synthesizing two concepts is the key to creative design, these concept synthesizing processes have not yet been formerly described, and the kinds of primitives and how these primitives are related to creativity have not been clarified. In order to gain a deeper understanding of the nature of creative design and to develop methodologies for creative design, it is important to determine primitive processes for concept-synthesis. The assumptions that primitive processes are useful for explaining creativity in design, rather than a general process model in which only the superficial design action is generalized and the hidden thought mechanism is not dealt with. Normally, an 'abstraction process' based on a 'taxonomical relation' is regarded as a primitive process in creating a new concept. In addition, another important process for recognizing two concepts is pointed out. It is called the integrating process, in which two concepts are related thematically (Nagai and Taura, 2006). For example, from the two concepts, milk and cow, a scene of milking a cow can arise from the thematic relating process. This process is expected to be effective for creative design. However, how the thematic relation is effective for design creativity has not been clarified using analogy.

3. Experiment

In order to classify cognitive methods in concept generation whether 1st Method (Metaphor), 2nd Method (Blending) or 3rd Method (Thematic) from the design output, an experiment is initially prepared with a design task (Appendix A). The design task is to generate idea regarded by researchers such as Feldman, as a cognitive process, strongly moderated by social and motivational factors (Feldman, 1999). Combine technique from S.C.A.M.P.E.R. ideation tool is used for the design task. S.C.A.M.P.E.R. was developed by extending Osborn's (Osborn, 1953) classified by Shah, et al. (Shah, 2003) as intuitive method, and argued to be an intermediate method as it enables both, idea generation and problem analysis (Chulvi, 2003). Further, a creative base concept base from combine is selected based on high alignability and high thematic relation between base object and target object. The based concept was selected based on the research of Wisniewski and Bassok (Wisniewski and Bassok, 1999). Subjects need to sketch a furniture with name and explanation. The design outputs further classify into these three-method classifications. After been classified, the design outputs are evaluated based on creativity by three design instructors who expert in design.

Classification of Design Output

The design experiment was conducted with 47 Mechanical Engineering students as subjects. They are students of Diploma in Mechanical Engineering from Kolej Yayasan Pelajaran Johor and Bachelor in Mechanical Engineering from Universiti Teknologi Malaysia. The number of subjects' study Diploma in Mechanical Engineering is 27 while subjects' study in Bachelor in Mechanical Engineering is 20 subjects. The average age of subjects is in between 18 to 21 years old. The number of male subjects is more than female subjects which is 32 male subjects and 15 female subjects. In total, 47 ideas of designing furniture from the base concept of "Swan and Fish" were collected. Because of the subjects were students, creativity was evaluated on the basis of the design concept. Besides that, to decide the method classification more accurate whether 1st Method (Metaphor), 2nd Method (Blending) or 3rd Method (Thematic), the design task also considered the product name and explanation of the design concept drawing. Three design output samples are randomly selected for each method classification and shown in Table 1 below as the design experiment results.

Table 1: Three Design Output Samples for each of Method Classification with Principle Relation

Subject	Product Name	Design Relation	Principle Relation	Method Classification
1	Swan Space Happily Closet	White colour with swan pattern	Taxonomical	1 st Method (Metaphor)
2	Fish Book Shelf	Fish pattern	Taxonomical	1 st Method (Metaphor)
3	Swan's Couch	Shape of swan's neck	Taxonomical	1 st Method (Metaphor)
4	Romantic Goldfish Chair	Gold and white colour inspired from goldfish and swan colour	Taxonomical	2 nd Method (Blending)
5	2 in 1 Dining Table	Swan leg and fish aquarium	Taxonomical	2 nd Method (Blending)
6	Swanalisa Rack Table	Scaly design and swan leg	Taxonomical	2 nd Method (Blending)
7	The Lake Stairs	Swan eats fish	Thematic	3 rd Method (Thematic)
8	Fishua Dining Table	Both swan and fish live in water	Thematic	3 rd Method (Thematic)
9	Swan Chair with Fish LED	Swan eats fish	Thematic	3 rd Method (Thematic)

The consideration to determine the principle relation and method classification is not only based on the design sketch and product name. From the design relation that collected from product explanation, the principle relation and method classification more accurately determined. Further discussion about the classification of design output samples are explained in three design output sketch samples. Below figures illustrate sample of sketches for design idea of each cognitive method classification which come from Subject 1, 4 and 7 as shown in Table 1.

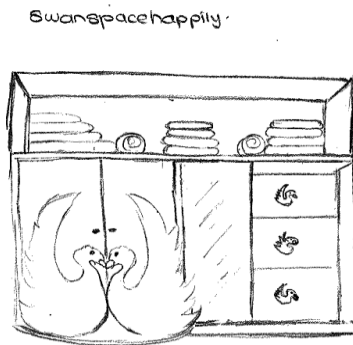


Figure 1: Sample design output for 1st Method Classification (Metaphor)

Figure 1 shows Taxonomical Relation Principle with 1st Method Classification (Metaphor) sample design output sketched by Subject 1. The product name given by the subject is Swan Space Happily Closet. In explanation part, Subject 1 mentioned about the colour of the closet is white because of colour of Swan. Besides that, Subject 1 also described about the door closet is designed with shape of Swan as illustrate in Figure 1. In previous study, metaphor is understood to be method of concept creation via the transfer of a new concept from an existing concept (Nagai and Taura, 2006). Metaphor also recognizing common features based on taxonomical relation focusing on the similarity between two things. From the statement, it is very clear that the design principle for design output of subject 1 is Taxonomical Relation with 1st Method Classification (Metaphor).

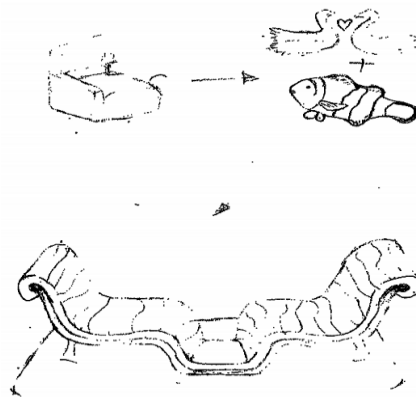


Figure 2: Sample design output for 2nd Method Classification (Blending)

Figure 2 shows Taxonomical Relation Principle with 2nd Method Classification (Blending) sample design output sketched by Subject 4. The product name given by the subject is Romantic Goldfish Chair. In explanation part, Subject 4 mentioned about the colour of the chair is mix with white and gold colour. The colour inspired from white colour of swan and gold colour of goldfish. The shape of the couple chair like a couple of swans facing each other and the pattern of the surface chair also inspired from pattern of the goldfish skin. Moreover, Subject 4 also explained about the floating design of the chair and could be floated in water. From the design output it shows that the product shares not only the similarity but also dissimilarity is pointed out as mentioned in literature review about the blending concept properties. In previous study also stated that blending concept is when two basic concepts are blended and a new concept that inherits some abstract features of

neither are generated (Nagai and Taura, 2006). The statement support that the sample design output sketched and explained by Subject 4 is Taxonomical Relation with 2nd Method Classification (Blending).

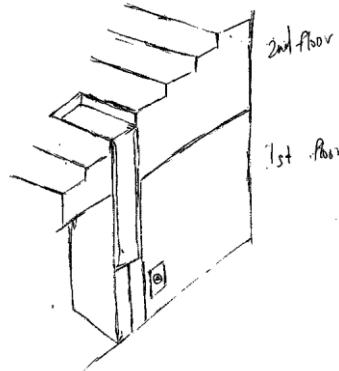


Figure 3: Sample design output for 3rd Method Classification (Thematic)

The last figure is Figure 3 shows sample design output sketched by Subject 7 and the result is Thematic Relation Principle with 3rd Method Classification (Thematic). The product name given by the subject is The Lake Stairs. In explanation part, Subject 7 described about the design is to help people to move easier. For example, if a person at level two and want to head to the first floor, when he or she step on the pressure plate on the specific stair, it will initiate a lift system to head down. This concept looks as if the person is being eaten by the stairs because he or she will go to the stairs where the lift is and it is as a swan eating fish. In previous study, thematic relation considers not only attributes but also the function and interface with the user. Besides that, thematic relation also recognizes the design from the human viewpoint (Nagai and Taura, 2006). The explanation can conclude that the design principle is Thematic Relation with 3rd Method Classification (Thematic).

The number of subjects for principle relation and method classification is determined for this study. The method classification percentages of number of subjects are shown in Figure 4 below.

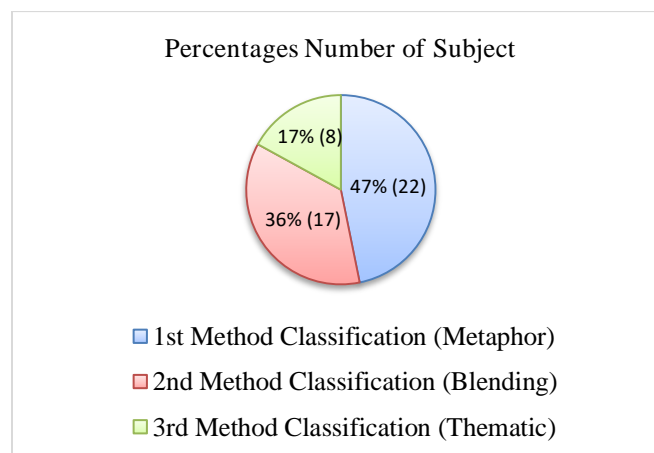


Figure 4: Method Classification Percentage of Number of Subject

The percentages of pie chart data in Figure 4 shows only 17% (8) design output of subjects are 3rd Method Classification (Thematic), 36% (17) design output of subjects are 2nd Method Classification (Blending) and 47% (22) design output of subjects are 1st Method Classification (Metaphor). Based on the percentages of pie chart, it concludes that the design output of subjects for 1st Method Classification (Metaphor) is higher than 2nd Method Classification (Blending) and 3rd Method Classification (Thematic). The percentages design output of subjects for taxonomical relation which are 1st Method Classification (Metaphor) and 2nd Method Classification (Blending) higher than thematic relation might be because the subjects are students who are not experience and master in design. If the design experiment is further with experience subjects like design engineer or design expertise, the results must be different. It is because, in 3rd Method Classification (Thematic), the designer must carefully consider not only its attributes (shape, material, etc.) but also its function and interface with the user. Therefore, consideration of the human factor is important in thematic relation (Nagai and Taura, 2006). Not all engineering students consider the human viewpoint. Some of the subjects have outstanding ideas during design a product in the design experiment. These subjects have closely high creative ideas in design. Consequently, the less number subjects of 3rd Method Classification (Thematic) design output produce in this design experiment.

4. Discussion and Conclusion

Creativity Evaluation of Design Output

There are many different methods of success evaluation in design exist (Ulrich and Eppinger, 2008). Based on Finke's Method (Finke, 1992), the distinction between divergent and convergent insight reflects the classic distinction between divergent and convergent thinking. Finke's experiment was rated by judges on a five-point scale for their apparent originality and practicality. If the form scored highly both on practicality and originality, it was considered a creative invention. For the design experiment of this study, the creativity evaluation implemented the Finke Method where the design output is evaluated based on rubric prepared in viewpoint of practicality and originality of a product design. For practicality score, the rubric is measured from innovativeness and critical thinking, while originality score, the rubric is measured from quality and usability. In this analysis, the creativity evaluation of the design output is evaluated by three design instructors based on point of practicality and originality (Appendix B). The design instructors are researchers and academic staffs from Kolej Yayasan Pelajaran Johor. These three design instructors have experiences and knowledges in design. Not only qualification as academic staffs, they also have experiences in industry before enter the education sector. The first design instructor was production engineer, second design instructor was quality engineer and third design instructor was cad design engineer. Currently they are expert and teach in mechanical engineering courses such as strength of materials, engineering design, product design and many more. The first design instructor also has more than five years teaching experience in design course. One of them also has experiences as panel for final year project and some competition. Therefore, they are eligible to evaluate the creativity of design output for this study. Table 2 below presents three design output of subject for each method classification same as previous sample in Table 1 to shows the relationship between the method classification with creativity score of design output samples.

Table 2: Method Classification and Creativity Score of Design Output Samples

Subject	Principle Relation	Method Classification	Practicality Score Average	Originality Score Average	Creativity Score
1	Taxonomical	1 st Method (Metaphor)	2.083	1.917	4.000
2			1.833	1.417	3.250
3			1.583	1.667	3.250
4			3.583	1.167	4.750
5	Thematic	2 nd Method (Blending)	2.917	1.417	4.334
6			2.500	2.917	5.417
7			4.083	4.750	8.833
8	Thematic	3 rd Method (Thematic)	4.333	4.000	8.333
9			3.750	3.583	7.333

Based on the Table 2, the creativity score for taxonomical relation is lower than thematic relation. Therefore, 3rd Method (Thematic) is the highest creativity score for method classification because it is the only method under thematic relation. From previous study, the relative tendency to use comparison versus integration in making similarity judgments by orthogonally varying pairs of objects so as to be taxonomically or functionally related (Wisniewski and Bassok, 1999). It was shown that not only a taxonomical relation but also a thematic relation is important in recognizing the two objects. The creativity scores of design output results support that the thematic relation is expected to be closely related to design creativity because recognizing objects in a thematic relation is to recognize them from the human viewpoint (Nagai and Taura, 2006). Meanwhile, under taxonomical relation, 2nd Method (Blending) is higher in creativity score than 1st Method (Metaphor). In previous study stated, analogical reasoning and metaphor are known to play very important roles in creative design (Gero and Maher, 1991). Although analogical reasoning and metaphor recognize are powerful for generating a new concept, there is a more creative design method because the main roles of analogical reasoning and metaphor are to understand or to transfer a known concept, it is analytic rather than synthetic since its primitive process is the extraction of some features from a known concept by analysing it. So that, the results prove that blending method is more closely to creative design than metaphor method because it presents a high possibility of creating a novel concept (Nagai and Taura, 2006). Based on the results and discussions above, a conclusion from the table defined as below:

1st Method (Metaphor) < 2nd Method (Blending) < 3rd Method (Thematic)

From the conclusion, it tells that 1st Method Classification (Metaphor) is lower creative than 2nd Method Classification (Blending) under taxonomical relation in design. Meanwhile, 3rd Method Classification (Thematic) is the highest creative in design among the three-method classification. It proves previous study by Nagai and Taura, the integrating process, in which two concepts are related thematically more closely to high creative in design (Nagai and Taura, 2006).

Correlation Analysis

The correlation analysis for this study is purpose to justify the assumptions of blending method and thematic method produce a higher creativity in ideation of design output than metaphor method by clarify the relation between concept generation principles of method classification with the originality and practicality viewpoints of creativity evaluation. Previously, the study made

assumptions that blending method and thematic method are made to relate more closely to produce a higher creativity in ideation process than metaphor method (Nagai and Taura, 2006). Previous studies that are related to concept generation principles also only justified the creativity and non-creativity design output by itself. But there is still no data to show the creative ideation process by understanding how concept generation principles correlates with creativity of design output from the viewpoint of originality and practicality.

H₀: There is correlation between Cognitive Method Classification and Creativity Score.

H₁: There is no correlation between Cognitive Method Classification and Creativity Score.

Table 3: Spearman's rho Correlations of Cognitive Method Classification and Creativity Score

			Cognitive_Method_Classification	Creativity_Score
Spearman's rho	Cognitive_Method_Classification	Correlation Coefficient	1.000	.824**
		Sig. (2-tailed)	.	.000
		N	47	47
	Creativity_Score	Correlation Coefficient	.824**	1.000
		Sig. (2-tailed)	.000	.
		N	47	47

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3 shows the Spearman's rho correlations of cognitive method classification and creativity score. Spearman's rho correlation is also used to test the correlation cognitive method classification and creativity score due to non-normality of the data distribution. From the data analysis above shows that the value of Spearman's rho correlation coefficient, r is 0.824. So that there is positively strong relationship between cognitive method classification and creativity score. The significant value, $p = 0.000$ ($2.5338086798123955E-13$ accurate value from SPSS) is more than $\alpha = 0.05$ and here proves that the data fail to reject H₀ which supported the value of correlation coefficient, $r = 0.824$ above. It concludes that there is significantly related between cognitive method classification and creativity score.

Next is to discuss about the relation between the cognitive method classification towards mean of creativity score. From the mean value, an error bar is plotted for creativity score and the analysis is to see the significant difference from the standard deviation value in the error bar. Table 4 shows report of mean, number of data and standard deviation of cognitive method classification towards practicality score, originality score and creativity score.

Table 4: Report of Mean and Standard Deviation of Practicality Score, Originality Score and Creativity Score and

Cognitive_Method_Classification		Practicality_Score	Originality_Score	Creativity_Score
1st Method (Metaphor)	Mean	1.82945	1.76900	3.59841
	N	22	22	22
	Std. Deviation	.366764	.491860	.799866
2nd Method (Blending)	Mean	2.69118	2.68629	5.37741
	N	17	17	17
	Std. Deviation	.519395	.537326	.984264
3rd Method (Thematic)	Mean	3.97913	3.96863	7.94775
	N	8	8	8
	Std. Deviation	.280805	.454119	.604066
Total	Mean	2.50704	2.47519	4.98219
	N	47	47	47
	Std. Deviation	.881038	.940807	1.785379

Based on Table 4, the mean creativity score value for 1st Method (Metaphor) is 3.59841, 2nd Method (Blending) is 5.37741 and 3rd Method (Thematic) is 7.94775, while the standard deviation creativity score value for 1st Method (Metaphor) is 0.799866, 2nd Method (Blending) is 0.984264 and 3rd Method (Thematic) is 0.604066.

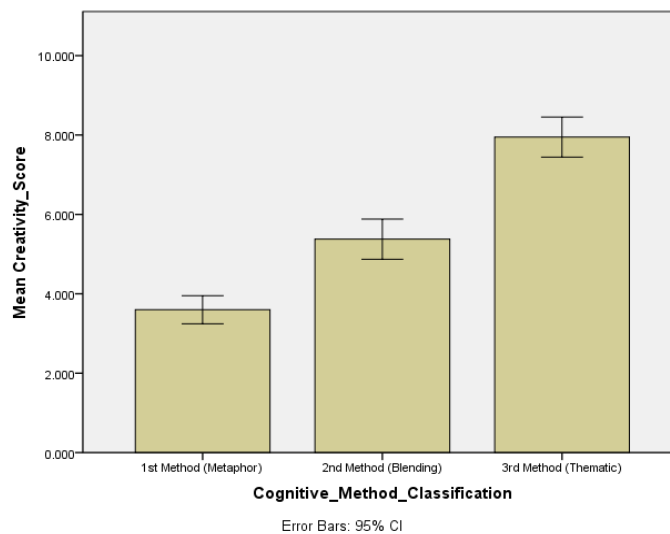


Figure 5: Confidence Interval Error Bar of Cognitive Method Classification and Mean Creativity Score

Figure 5 shows confidence interval error bar of cognitive method classification and mean creativity score. From the bar chart, the mean creativity scores for 3rd Method (Thematic) and 2nd Method (Blending) are higher than 1st Method (Metaphor). The standard deviation error bars do not overlap each other, then it is a clue that the difference may be significant and it proves that all the

three methods are affected the creativity score. From the statement and mean value in Table 4, 2nd Method (Blending) is more creative than 1st Method (Metaphor) but less creative than 3rd Method (Thematic). To summarize, previous study by Nagai and Taura that made assumptions of thematic relation which the method is 3rd Method Classification (Thematic) produce a higher creativity in ideation of design output than taxonomical relation which the method is 1st Method Classification (Metaphor) and 2nd Method Classification (Blending) is justified from the correlation analysis result between cognitive method classification and creativity score of design output in this study. The correlation coefficient, $r = 0.824$ concludes that there is significantly related between cognitive method classification and creativity score.

Conclusion

The purpose of this study to identify type of cognitive methods used by engineering students that may contributes creative ideation process in concept generation principles were successfully defined. From the study, the correlation between concept generation principles with creativity of design output from the viewpoint of originality and practicality were determined. In this study, two topics were examined. First, the principle relation of the concept generation of design were differentiated by taxonomical relation and thematic relation. Taxonomical relation was divided by two method classification. The first method classification that lies under taxonomical relation in concept generation method is metaphor. The concept synthesizing process for this method is concept abstraction and this method is named with 1st Method Classification (Metaphor) in the study. Besides that, concept blending also the other concept synthesizing process of the taxonomical relation. This is the 2nd primitive using the method of blending in concept generation and the name of this method for the study is 2nd Method Classification (Blending). To understanding the different between these two methods that lies under the same taxonomical relation, 2nd Method Classification (Blending) basic principle is based on the similarity and dissimilarity, while 1st Method Classification (Metaphor) is based on the similarity only. For thematic relation, the concept synthesizing process is concept integration and the method name for this concept is 3rd Method Classification (Thematic). These three methods were successfully defined by classify the idea of design output.

The creativity score of the design output were examined by design instructors from the viewpoint of practicality and originality. The correlation between concept generation principle methods and creativity of design output from the viewpoint of originality and practicality were analysed by using SPSS software. From Spearman's Rho Correlation Test, the correlation coefficient, r is determined and the value shows the value is near to +1. From the statement, it concludes that there is positively strong relationship between these two variables. To support the correlation test, an error bar also was plotted. Since the standard deviation error bars do not overlap each other, then it was a clue that the difference may be significant and it proves that all the three methods affected the creativity score of design output. In conclusion, 1st Method Classification (Metaphor) is the lowest creative while 3rd Method Classification (Thematic) is the highest creative and 2nd Method Classification is in the middle rank.

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Appendix A – Design Task

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Cognitive Methods in Concept Generation
 Principles towards Creative Ideation Process

Design Task

Main Instruction:

In this experiment, a process of ideation is treated as design task. The purpose of this experiment is to show that there can be different method use in concept generation principles of designing something.

This booklet consists of Five (5) pages including front page.

Please write your name and age in the space below, select your gender and program, then wait for the instruction to open the booklet.

Name	:	
Age	:	
Gender	:	
Program	:	Diploma in Mechanical Engineering / Bachelor in Mechanical Engineering

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Cognitive Methods in Concept Generation
 Principles towards Creative Ideation Process

Instruction:

In order to achieve a creative output in design, it is important to think from the viewpoint of practicality and originality in designing something.

The task for this experiment is to design a furniture. In this task, you are required to sketch **ONE (1)** design of furniture product based on base concept “Swan and Fish”. You can design any reasonable or unsound ideas, but please note that it is **NOT NECESSARY** to think about the detail mechanism.

After completing the design sketch, you are required to give a name of the furniture product and explanation about the design. You can use English or Malay words, whichever preferable.

You are given 60 minutes to complete all the tasks.

Appendix B – Evaluation Rubric

Evaluation Rubric - Originality and Practicality

CRITERIA	WEIGHTAGE	LOW	FAIR	GOOD	EXCELLENT	TOTAL MARKS	
		1	2	3	4		
Originality	Innovativeness	0.75	Does not exhibit efforts to be original	Shows some originality, inadequate use of resources	Original ideas, adequate use of resources	Very original ideas, shows imaginative use of resources	/ 3
	Critical Thinking	0.50	Not unique and not original ideas and no principles of engineering design were employed	Unique and original ideas but no principles of engineering design were employed	Unique and original ideas and principles of engineering design were employed	Very unique and original ideas and principles of engineering design were employed	/ 2
Practicality	Quality	0.75	Below acceptable quality, several requirements were not met	Acceptable quality, meets most requirements	Acceptable quality, meets all requirements	Exceptional quality, meets beyond requirements	/ 3
	Usability	0.50	Useful but not safe and practical in using the product	Useful and safe in using the product but not practical	Useful and safe in using the product but not practical	Useful and safe in using the product but not practical	/ 2
TOTAL						/ 5	

Creative Methods in Qualitative Interviews with Higher Education Students: A Graft Sketching and Photo-Card Activity

Nur Hidayah Mohamed Yunus^{1*}, Aini Nazura Paimin², Muhammad Hazim Fahmi Abdul Ghafar¹

¹ Department of Mathematics, Science & Computer, Politeknik Mukah, Sarawak, Malaysia

² Faculty of Technical and Vocational Education, Universiti Tun Hussein Onn Malaysia, Johor, Malaysia

*Corresponding Author: hidayah.yunus@pmu.edu.my

Abstract: *In education research, qualitative research methods have gained attention because they allow the investigation of several people-related issues that can not be investigated using quantitative methods. Though qualitative and quantitative research methods lies on separate continuum, they all aimed at identifying problems using different approach. This study explain the usefulness of using creative method qualitative approaches in an effort to obtain quality data for the study. The purpose of this paper is to introduce readers with some of the creative methods that can be applied, which is not only can actively engage informants during the research process but also to more fully aware of their perceptions, experiences, feelings and life events. Data were collected among 24 final year engineering student using semi-structured interview, integrated with two creative activities namely the use of graph sketching activity and photo-card activity. The purpose of these activities are to deepening the exploration activities and understandings of intrinsic and extrinsic motivation factors that influence the retention and success of engineering students at higher education institutions. Data were analysed using a thematic coding process and ATLAS.ti software was used to assist the coding process. Using the creative methods in this study have been proved to be an effective strategies to extract quality data from the interview process where a intrinsic and extrinsic motivations of the students can be explained and expanded in more detailed.*

Keywords: Qualitative research, creative method, semi-structured interviews, visual method, higher education students

1. Introduction

Novice researchers are often facing challenges in determining suitable research technique that are relevant to their research objectives. Therefore, introducing creative methods in data collection process will be valuable to any suitable research process. In this paper, several creative methods in qualitative studies will be discussed as techniques introduced in a research that explores students learning experience. The idea of conducting this research was to identify factors contributing to students' success and retention in engineering studies. According to Halcomb (2016), implementing any creative methods during data collection stage of research is powerful for learning from other people's experiences.

Although generally creative methods is widely and often being used by people working with children and young people (Robinson & Gillies, 2012), the use of creative methods is seen more

common in research that conducted among adults in qualitative research (Brown, 2019; Schubring, Mayer, & Thiel, 2019; Kara, 2015; Mannay, 2010; Bagnoli, 2009; Kearney & Hyle, 2004). This is because creative methods offer a special way to explore problems and have a potential to make the familiar strange (Mannay, 2010) and elicit more in-depth thought on the topics under discussion (Kara, 2015).

2. Literature Review

What is creative method?

Creative methods include wide range of often visual or arts based methods (Mannay, 2016; McNiff, 2008; Cole & McIntyre, 2008; Eisner, 2008) for example drawing (Literat, 2013; Johnson & Weller, 2001), photography (Vigurs & Kara, 2017; Johnson & Weller, 2001; Sharples, Davison, Thomas, & Rudman, 2003; Schwartz, 1989) and the use of objects (Brown, 2019; Kuhn, 2008; Davey & Hill, 1999; Prosser, 1998). Despite often being represent as art-based methods, the term 'creative' has been used by Rainford (2020), and Kara (2015), who highlighted that there is also a scope for using creativity in traditional research such as interviews and focus group in qualitative research. Creative methods are known as playful approach to data collection process which often used in research with children and youngster (Literat, 2013). According to Brown (2019), the use of creative methods on adults in qualitative studies has become a norm based on the context of their respective studies. This clearly proven that creative methods can be applied to any range of age as an effective data collection technique.

Creative methods are often introduced because such an approach may enhance reflexivity in interview circumstances (Bagnoli, 2009), and the usage can also build barriers due to a lack of creative confidence among informants (Kearney & Hyle, 2004). According to Rauth, Koppen, Jobst, and Meinel (2010), creative confidence can be obtained when someone trying something they have never done and learn something new about themselves. Kelley and Kelley (2012), have identified four creative method barriers to adult during interview sessions which is fear of the unknown, fear of judgement, fear of the first step and fear of losing control. Therefore, it is important for researchers to be aware of such barriers when conducting research using creative methods which could potentially led to lack of creative confidence of the informants.

The purpose and rational using creative method in qualitative research

Creative method within interviews aim to collecting clearly data and for deeper insights than questioning alone, which primarily help understand a specific problem from viewpoint of the informant of the research. It is very important to understand why creative method should be used. Firstly, creative method within interview may be a valuable research activity when the researcher want a deeper and clearer discussion about research context. The necessity for creative method during this study was to stimulate discussion of each story that allowed the informant's reflection and deeper consideration than a question-answer format. Besides, creative methods also allow for discussion and deconstruction of the underpinning assumptions framing the 'typical' students they worked with (Rainford, 2020). 'Typical' student in this study refer to student that can endure until the final year and achieve excellent exam results. Based on their story will be the finding of this study about how, who n why they could be success and can persist until final year. Through playing an activities, different ways of thinking can be opened up clearly (Gauntlett, 2007), and can help

developing thinking about everyday concepts, people involved and recall all experiences has been faced by the informant.

Secondly, the creative methods used are for building rapport and attracts informants rather than get bored with traditional structured interview questions. Creative activity can made the interview more enjoyable (Rainford, 2020), and can build a stronger and cohesive Researcher-Informant relationship (Mccusker & Gunaydin, 2014), for a clearer and more holistically investigation about research context. The enjoyment of the activity also can built level of rapport between the informant and reseacher on how creative the activity was done. So it can be concluded that the primary focus from this study was still the oral narratives surrounding intrinsic and extrinsic motivation context, therefore creative activities was done as a ‘starting point for developing thoughts about personal experience’ (Gauntlett & Holzwarth, 2006), about how those motivation can influence students' retention and study success.

3. Methods

In this research, the semi-structured interviews were conducted with 24 undergraduate engineering students with a CGPA of 3.60 and above at four technical universities in Malaysia for a further exploration on how they could endure until the final year and to achieve excellent exam results based on two key factors: intrinsic motivation and extrinsic motivation. Six (6) informants aged between 22 to 24 years old were selected respectively from University Tun Hussien Onn Malaysia (UTHM) located at Johor, University Technical Malaysia Melaka (UTeM) located at Melaka, University Malaysia Pahang (UMP) located at Pahang and lastly University Malasia Perlis (UniMAP) located at Perlis. They specialised in three main fields of engineering namely Civil Engineering, Mechanical Engineering and Electrical Engineering.

Each interview lasted between 00:52:04 and 01:48:10 hours. Additionally, within each interview, two creative activity were used to explore the past experiences and gain a broader and deeper perspective on students' retention and success throughout the first semester until final year. Other than using semi-structured interviews, graft sketching activity and photo card activity is the creative ways of collecting data in this study. This section describes in detail the entire process of the creative methods implemented during the data collection procedure.

Graph sketching activity

The first task used a sketching activities to gather information based on informants' achievements and relates their achievement (from first year to final year) with the students' experiences during learning process (Figure 1). In order to understand the students' learning ‘stories’, researchers need to be as close as possible with the informant to naturally digging out their success and perhaps failure stories. At certain point where the result shows decrement in their result, researcher will ask about the striving factors that have kept them ongoing and managed to strive back to achieve success. The information gained was not merely about students' success factor but in the case of failure situations, this strategy has been successfully implemented to understand what the students have been going through and how they managed to overcome the problem (which creates another successful stories). This activity has been innovated as a creative ways of acquiring an in depth and quality data during the data collection process. According to Halcomb (2016), other than interviews, focus groups and observation which may be the most common methods of qualitative

data techniques that have been applied, any innovative methods can be used as a strategy to enter into the informants' world.

Figure 1 shows the graph-sketching activity chart that been used during the data collection process in this study. The activity starts with researcher explaining about the activity procedure prior to the interview. Then, informants are required to sketch their cumulative grade point average (CGPA) results throughout the four-year study. By giving the informant sufficient time to complete it, it can control a sense of fear and judgment about the interview process. Finally, informants are encouraged to explain any stories related to their results. This is the stage where active participation is expected from both parties, informant and interviewer. The positive part of this activities is it can eliminate the fear of the first step being interviewed and reduce the fear of the unknown of what to share about their journey. By using this graph sketching activity, several earlier issues discussed about the three barriers (fear of the unknown, fear of judgement, and fear of the first step) discussed by Kelley and Kelley (2012), has been minimised.

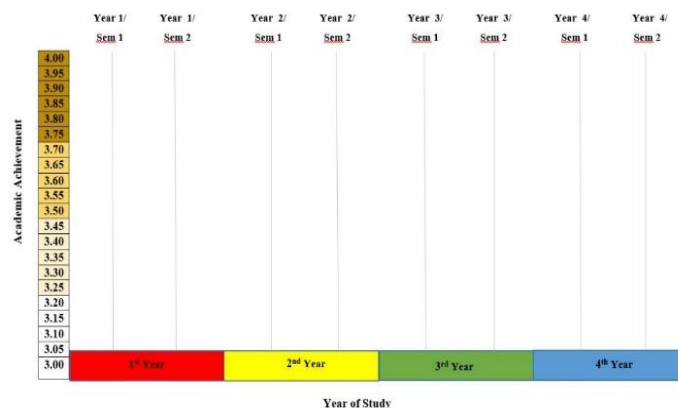


Figure 1 : Graph-sketching sheet

This graph sketch activity was performed before the third question in the interview protocol was asked to the informant. By completing the graph-sketch sheet it would encourage and support informant engagement at initial level as well as increasing the informants' level of confidence and offering an outline of history from the beginning of the journey up to the end of study journey. Concept of flow are the most commonly used for increasing memory and conceptual development of someone's experiences (Crilly, Blackwell, & Clarkson, 2006). The sheet included years of study and exam results which purposely designed to explore the flow of the students' story in historic version and to help recall their past experiences easily. While informants doing the sketch session, researcher can get ready with the next questions. Using such a technique would also allow those informants who are not convenient with drawing to focus on the interview session.

As an output of the graph sketching activity, the researcher can visually assess the fluctuations plot of the informant exam results . Based on these graphs, researcher is also able to ask questions about the story of each semester in detailed. This activity also facilitates informants to reflect on what they have been going through throughout their studies. By using this activity, support and encouragement received form the external factors such as families, lecturers and friends was also revealed, especially during the story about their 'hard time'. The flow graphic formulation of the

sketch will aid recall of existing memories and assist in further discussion (Prosser & Loxley, 2008). This activity is very helpful as an exposure technique whereby it enables informants to tell about the challenges they face during study and strategies used to overcome it. The following figure (Figure 2) demonstrates one of the sketches made by the informant.

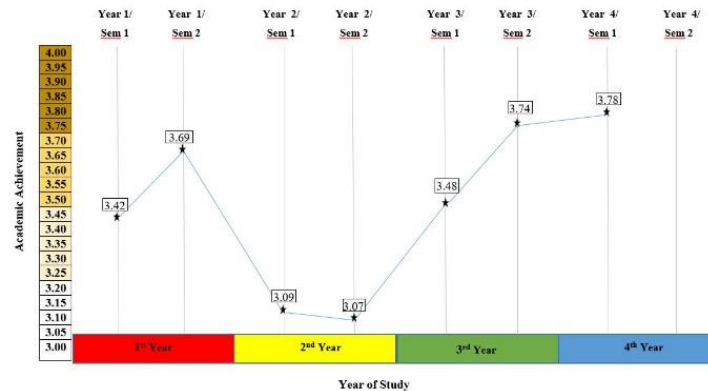


Figure 2 : Graph sketched by informant.

Indirectly, this activity has managed to provide sufficient answers to the ‘real stories’ in context of this study particularly in the intrinsic and extrinsic motivation factors that influences them to survive and achieve good results. This provides a different format to the usual word-based interview, as priority is given to the story of the informants over questioning conducted by the researchers. In addition, the pace and rhythm of the interview is dictated by the thinking processes of the informants, how they making decisions of their own life, and clarifying their own deep thoughts rather than feeling the pressure to respond to a question quickly.

Photo-card activity

In order to elaborate the story about student’s retention and study success, this activity was designed in order to foster better understand of informants story on how they can persist until final year and be able to achieve excellent results. There is an urge to understand why some students in engineering can succeed while others do not. University used 'retention and study success' as a term that describes students who are successful in program of study in term of getting high CGPA which is one of the measures of student academic success and the ability to survive from the first year to the final year. When considering how to approach discussions in the interview setting, the using of creative method seemed a useful starting point (Morrison & Flegel, 2017).

This photo-card activity is based on informant-generated visual data which has been widely used as technique in qualitative inquiry (Prosser & Loxley, 2008). One of informant-generated visual data related in this study is photo-elicitation. Photo-elicitation is a method of interview in visual psychology research that uses visual image to elicit comments. The type of image used including photographs, cartoons, video, drawings, diagrams and artefacts (Harper, 2002). According to Bignante (2010), photo-elicitation does not aim to replace other forms of enquiry such as traditional interviews. On the contrary, it is a useful tool for both triangulating between different sources of information, and potentially bringing different insights into the research.

This activity was introduced to create an informal interaction between interviewer and informants, and, to allow for more in-depth exploration. According to Solomon and Grimley (2011), the technique of creative activity is rarely used in adult interviews but has been recognised as techniques used to facilitate the imagination of informants to explain more fully the feasibility of the ongoing research. Moreover, such activity using visual photography have also well documented as being used in qualitative interviews (Vigurs & Kara, 2017; Mannay, 2010). By engaging in this activity, informants were able to ‘recall’ their past memory and researcher gain clearer information about the informant experiences. Figure 3 shows the photo-card activity used in this study.



Figure 3 : Photo-card activity

This study uses cartoon image as an intermediate medium for researchers when questioning. The use of unreal picture can be a useful way of reducing biases through likeness to real people (Rainford, 2020). Images can make informant to pay attention to things in new ways and they are likely to be memorable because images can be used to communicate more holistically, incorporating multiple layers, and evoking stories (Hammarberg, Kirkman, & Lacey, 2016). Using the photo as a tool is also to provide some degree of construct validity and reliability to explore informants' understanding of their own situation within their interviews (Prosser & Loxley, 2008). Unlike the traditional interviews that were perceived as 'less structured and rambling', the use of photos added a focus due to the informants' response to the image probes'. Other than that, building rapport also occurs because engaging in interesting activities reduce the level of formality in an interview.

In this study, the researcher deals with the use of smaller and interesting cards but with the same purpose through the addition of student-related activities. The photo-card activity in this study is divided into two sets of card groups namely emotion cards and external motivation factor cards set. Shepherd (2002), states that the subject matter of individual emotions has proven to be one of the most difficult to see and explore especially in terms of adult students. Therefore, the uses Newman's patents as an approach to help students express their emotions. Newman's patent has four panels each depicting an emotional face. Therefore, the implementation of this activity is in line with Shepherd's work of helping students express their emotions with the help of photo that describe emotions.

The second set of photo cards in this study represents extrinsic motivational factors based on factors in Student Success Model. Jamaludin, Ku Johari, and Amat (2018), study based on Adlerian theory or better known as individual therapy created by Alferd Adler states that through student play activities can express ideas, thoughts, emotions and behaviors. As such, it was seen that informants were able to delve deeper into the factors influencing their success and retention, especially in the context of engineering students based on emotional expression.

This photo-card activity is played after all the interview questions have been asked to the informant. Each informant was provided with 19 external motivation factor cards namely peers, family, lecturers, engineering professions, industrial training, industrial visit, programs and activities, real situations, course requirements and ten pieces of blank card as an additional factor to represent the informant's perspective. Then researcher questioned the informant using 10 emotion card set namely happy, dreams, excitement, hope, satisfaction, interest, sadness, stress, anger, confusion and fatigue. Figure 4 shows the activity in progress.



Figure 4 : Performing photo card activity

This process of photo-card activity is conducted by asking the informant to select several cards that represent a variety of extrinsic motivational factors and responding to the emotion card that the researcher has proposed to question informants. The informant then explained in detail the suggested external motivation factor cards in order to reflect emotion card that were asked and related them to their success and retention until the final year. For example researcher shows an 'excited' emotion photo card, then the informant is asked to suggest external motivation card that feels appropriate for the emotion. This activity is also in line with Weber (2008), who argues that there are two good reasons for using photographs in qualitative research, which is by using the power of images to 'jog memories' and 'provoke emotional and intellectual responses'. It is proven that using photos enables the researcher to get a comprehensive story in order to be a solid answer to a study. This task was anticipated to provide insights into how informants conceptualized their retention and study success through consideration of the reasoning of their chosen card.

When considering the creative method barriers identified by Kelley and Kelley (2012), researcher has been able to control those barriers by explaining clearly about the activity before started and providing a photo-card that requires informant only to select the related card to answer the

researcher's question. That is way it can eliminate the fear of the first step and reduce the fear of the unknown. By giving the informant a blank card to represent personal perspective of the informant, it allows for a more spontaneous response and can control a sense of judgment.

4. Data Collection Process

All data collection were collected by the main author herself. Ethical considerations were observed and full consent was obtained from the Universities, the faculties and the informants themselves before data were collected. Each participant was given the consent form which must be read, understood and signed before interview sessions were conducted. Prior to the recording, the researcher sought permission from the participants and explained the purpose of the recording, which was to aid the transcription of the conversation for analysis.

The researcher first had established good rapport and built positive relationship with the informants before conducting interview sessions in order to obtain more meaningful data based on their experiences. The interview sessions were carried out in either English or Malay, depending on the informants' language proficiency and preferences. Apart from being questioned based on interview questions, informants were involved in two (2) creative activities namely graph sketching activity performed before the third question in the interview session was asked to the informant and photo-card activity played after all interview questions were asked to the informants. Lastly, transcription of these interview session were analyzed as a source of data. The interview was recorded via a standard audio recorder, the interviewer transcribed it verbatim and were analyzed using thematic coding approach and Atlas.ti software was used to assist the coding process.

5. Result and Findings

After the interview transcription, thematic analysis was undertaken to identify common themes using the ATLAS.ti. By using semi structured interview and creative methods, there are seven (7) themes that have emerged from this study. Four themes for intrinsic motivation, namely desire, inventive resourcefulness, initiative and persistence. For extrinsic motivation, the findings found three themes, namely human, study programs and incentives.

6. Discussion

The overall use of graph sketching activity greatly benefits to built a Researcher-Informant relationship and enables researchers to access information, stories and identify factors influencing informants based on their sharing. Through the graphs they have also been able to explain in detail the problems experienced during the study which are seen from the standpoint of increasing or decreasing examination results. This also proves that each semester's exam results have a story behind it. Therefore, by using this method the researcher is able to discover and gain a clear picture of the student experience involving internal and external factors that influence them.

Besides, use of photo-card activity proven that using photos enables the researcher to get a comprehensive story about the topic of interest in the study. Each photo-card is subjective to each of the different informants and each provides an answer that relates to the experience they have had throughout their studies. In addition, these activities are conducted also to help achieve data

saturation. Fusch (2015), stated that interview activity is a practical method introduced in the current study to provide evidence of data saturation that is seen as important for qualitative research. This clearly shows that these method has successfully discovered new factors under extrinsic motivation factors namely community, facilities and environment, loans, scholarships and rewards that explain in more detail using of blank card provided to give informants the opportunity to provide personal answers based on their experiences. Moreover, it also makes it easier for informants to express their emotions and storylines in more detailed.

7. Conclusion

This study demonstrated many of the positive effects using of creative method, and manage to control barriers of creative confidence mentioned by Kelley and Kelley (2012). Furthermore, the introduction of graph sketching and photo-card activity also help to create 'less stress' and more enjoyable interview sessions. The creative method used in this research have evidently proved to be useful approach to get a more in-depth and quality data even though the exploration involves difficult topics since it allows ample space for informant to rethink and reconstitute their thoughts. Using this creative method has also been proven as a recommended strategy to facilitate informant engagement during the interview processes.

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Customer Relationship Management (CRM) System in Telecommunication Industry: A Framework Proposal on the Relationship CRM Antecedents, Information Technology Governance and Organizational Performance

Manisah Othman^{1*}, Nor Azlina Kamarohim¹

¹ School of Business and Economics, University Putra Malaysia

*Corresponding Author: manisah@upm.edu.my

Abstract: *Customer relationship management (CRM) has a growing popularity and is becoming one of the hottest academic and practical topics in the business field. In fact, due to the competitive environment, CRM is crucial and has become a niche for firm performance. However, there is limited research that reveals the antecedents of telecommunication industry performance. Therefore, this study is an attempt to provide a value conceptual model that explains the theoretical linkages existing between CRM antecedents and telecommunication performance. This study serves not only to clarify the relationship between CRM antecedents and telecommunication performance using balance scorecard perspectives' approach, but also to explain the mediation role of Information Technology governance in this relationship.*

Keywords: Customer relationship management, IT Governance, Balance Score Card, Organizational Performance

1. Introduction

Customer relationship management (CRM) systems are a group of information systems that enable organizations to contact customers and collect, store and analyse customer data to provide a comprehensive view of their customers. CRM systems mainly fall into three categories: operational systems (used for automation and increased efficiency of CRM processes), analytical systems (used for the analysis of customer data and knowledge), and collaborative systems (used to manage and integrate communication channels and customer interaction touch points).

In this regard, the successful implementation of CRM system will be of great benefit to the organizations, adopting it, as such organizations can reap the benefit of increasing sales through better market segmentation, customizing products and services, utilising customer data, gaining access to information and employee satisfaction, and above all, ensuring long-lasting customer-retention and loyalty (Alomtairi, 2009; Ozgener and Iraz, 2006; Stockdale, 2007; Verma and Chandhuri, 2009; Saarijärvi, Karjaluto, & Kuusela, 2013).

Moreover, we have to bear in mind that recent studies on the CRM selectively focus on some service sectors, such as banking (e.g. Akroush et al., 2011; Becker, Greve, and Albers 2009; Eid, 2007; Hussain et al., 2009; Krasnikov et al., 2009; Sin, Tse and Yim 2005), healthcare (e.g. Bunthuwun et al., 2011; Hung et al., 2010), and contact center (Abdullatif et al., 2010).

Consequently, there is still a marked lack of research on CRM antecedents in the telecommunication industry (Wu & Lu, 2012). Agbaje (2014) in his research mentioned that although there is ever-increasing use of CRM in the telecommunication sector, there are still limited researches investigating its variety of applications in such significant industry.

Furthermore, several researches refer to the importance of making studies on CRM systems antecedents in the telecommunication sector (Agbaje, 2014; Almotairi, 2009; Alrashed, 2016). As a result of that, it is reasonable to lead the conclusion that it is not only very little attention has been given to the CRM system antecedents in the telecommunication industry, but there is also plenty of opportunity for extending the literature about CRM systems antecedents and telecommunication industry performance, both theoretically and empirically.

2. Literature Review

2.1 CRM System

Customer relationship management is a core organizational process that focuses on establishing, maintaining, and enhancing long-term associations with customers as advocated by relationship marketing theory (Berry 1995; Morgan and Hunt 1994; Srivastava, Shervani, and Fahey 1999). The rapid advance in information technology (IT) has presented firms with new technology-based solutions, namely CRM technology, to manage customer relationships. CRM technology is a suite of information technology-based solutions designed to support the customer relationship management process (Rigby, Reichheld, and Schefter 2002). Many firms have invested in CRM technology (Day 2000), hoping to discriminate between profitable and unprofitable customers, provide customized service, and obtain higher customer retention (Peppers, Rogers, and Dorf 1999). The results from the use of CRM technology, however, have been mixed, and this has created substantial concern about its viability and effectiveness (Rigby et al. 2002). The business press also provides conflicting accounts about the performance of 3 CRM technology (see Agnew 2001; Whiting 2001), and research on this issue has been limited (Winer 2001).

In the past, CRM was viewed by researchers and practitioners primarily as an investment in software technology. Indeed, CRM systems has been often equated with CRM (Reinartz et al., 2004). However, more recent treatments have depicted CRM as a more expansive and holistic approach in developing sound and productive relationships with customers, while CRM systems, one of major components of CRM, has been defined as the information technology that is deployed for the specific purpose of managing customer relationships (Chen and Popovich, 2003; Sin et al., 2005). In this context, CRM systems use equates to, “the degree to which firms use supporting information technology,” to manage customer relationships effectively (Reinartz et al., 2004, p. 296).

Specifically, we focus on four activities of CRM systems: sales support, service support, analysis support, and data integration and access support. In that the general role of CRM systems is assumed to support sales force and service (Meuter et al., 2000; Speier and Venkatesh, 2002), CRM systems involves supportive activities to boost sales and adaptive service. Beyond such front office applications, CRM systems is expected to include collection, integration, and analysis of customer data (Jayachandran et al., 2005). Accordingly, CRM systems is referred to as an

information technology used to encourage sales support, service support, data analysis, and data integration.

2.2 Customer Orientation

A firm's customer orientation refers to the degree to which the firm obtains and uses information from customers, develops a strategy that will meet customer needs, and implements that strategy by being responsive to customer needs (i.e., the firm's understanding of its target customers; Day, 1994; Feng, Sun, Zhu, & Sohal, 2012; Hult et al., 2005; Liu, Ke, Wei, & Hua, 2013; Theoharakis & Hooley, 2008). A customer oriented firm, therefore, is considered as a firm that places high priority on present and future customer needs and has advanced its abilities to sense events and trends in their customer base (i.e., customer sensing) and to respond to that information (i.e., customer responsiveness). Brown, Mowen, Donavan, & Licata, (2002) define customer orientation as an employee's tendency or predisposition to meet customer needs in an on-the-job context. Customer orientation is viewed as a strategic asset that results from a firm's continuous improvement of its customer sensing and customer responsiveness capabilities (Day, 1994; Foley & Fahy, 2009). A firm with a strong customer orientation may outperform its rivals because it better understands customer needs, adjusts products and services, and forecasts demand (Danneels, 2003; Feng et al., 2012; Theoharakis & Hooley, 2008). Among the benefits that may be achieved are greater customer satisfaction, delivery to specifications, and delivery reliability (Danneels, 2003; Feng et al., 2012; Martin & Grbac, 2003; Theoharakis & Hooley, 2008).

Customer orientation is a cultural based concept and can be viewed as a corporate culture as it reflects shared values and norms that enable organizations to put customer interests first on their list of priorities (Wang and Feng, 2012). Customer oriented organizations usually establish one-to-one relationships with their customers and adhere to customers' needs and wants through providing customized/personalized products and services (Akroush et al., 2011). Customer oriented organizations would also need to adopt cross-functional processes so as to facilitate customer transactions (Sin et al., 2005). When adopting customer-oriented approach, organizations usually try to innovative by creating better, quicker, and easier ways for managing customer transactions especially those related to fulfilling their needs and requests as this would enable organizations to serve customers better than their rivals and consequently get sustainable competitive advantages (Wilson et al., 2012). Customer-oriented organizations need also to utilize customer feedbacks in the form of complaints and/or suggestions in order to develop their operations, and enhance their business models and strategies (Uusitalo et al., 2011). Moreover, customer orientation philosophy leads organizations to place more emphasis on establishing and maintaining long-term relationships with customers.

2.3 Knowledge Management

Created customer knowledge needs to be public and shared throughout the organization (Ryals & Knox, 2001), because the potential of knowledge happens when it is shared within diverse functions of the organization in order to meet present customers and their predictable needs. Knowledge management helps an organization to succeed by building better customer relationships and it has a positive effect on an organization's performance (Akroush et al., 2011; Sin et al., 2005; Yim et al., 2005). Thus, in order for organizations to stay competitive, they need to obtain new information about their customers, discover and make use of their existing

knowledge, and share this knowledge within the organization. Furthermore, many studies have explored that there is a positive relationship among knowledge management and market effectiveness and financial performance (Sin et al., 2005), customer retention (Yim et al., 2005), and customer satisfaction (Abdullateef, 2011). In spite of these benefits there are few studies that illuminate the role of knowledge management in the hotels performance (Hallin & Marnburg, 2008; Lo et al., 2010; Shaw & Williams, 2009).

Gold et al. (2001) proposed a model of knowledge management capabilities that has since become one of the most widely cited in the knowledge management literature. In this model, Gold et al. theorized knowledge management capabilities as multidimensional concepts that incorporate: a process perspective which focuses on a set of activities, that is, knowledge process capabilities and an infrastructure perspective which focuses on enablers, that is, knowledge infrastructure capabilities (Alavi and Leidner, 2001; Lee and Choi, 2003). These in turn are composed of multiple dimensions: knowledge infrastructural capability comprises technology, organizational culture and organizational structure while knowledge process capability is made up of knowledge acquisition, knowledge conversion, knowledge application, and knowledge protection (Gold et al., 2001).

Although an appropriate technology infrastructure is essential for effective knowledge management, studies that examine the link between information technologies and measures of organizational performance are often inconclusive and fail to demonstrate whether IT is directly related to performance (Powell and Dent-Micallef, 1997; Webb and Schlemmer, 2006). For example, Powell and Dent-Micallef (1997) in their study of US firms, found that IT in and of itself did not enhance organizational performance, but could increase organizational performance when combined with other human and business assets. Teece et al. (1997) further suggested that the absence of an association between technology and performance could be because technology (e.g. IS resources) is easily copied, making it a fragile source of competitive advantage. Although technology is not always linked directly to organizational performance, research shows that when combined with other resources IT can enhance performance and lead to sustained advantage (Clemons and Row, 1991; Powell and Dent-Micallef, 1997). So although the technology infrastructure may not contribute directly to organizational performance, it is an essential enabler of other knowledge resources such as knowledge acquisition and knowledge application processes, which may themselves enhance organizational performance (Seleim and Khalil, 2007).

KM related to customer needs to be gathered from all the possible ways and means that is through customer demographic details, customer-buying patterns or other external sources (Ranjan & Bhatnagar, 2011). This information can be effectively gathered and utilized through the methods, which allow ease and quick interaction with the customers.

2.4 CRM Technology

Technology refers to the information technology (IT) has long been recognized as an enabler that for CRM application to foster closer relationship with customer (Bruce Ho, Denis Yang, & Victor Hung, 2015). Due to advances in information communication technology (ICT), a modern system has come about to reduce internal costs and better interact with the environment also to increase economic profit in the long term. Different hotels and businesses now implement different CRM

systems (Moriarty et al., 2008). Because of this, Dutu and Halmajan (2011) stated that unless CRM strategy is used with information technology, it will fail. Furthermore, the strategic applied of technology in marketing is one of the most important chances in the hotel sector since it is essential to obtain the right information from the right people at the right time, so that the right decisions can be made and/or services delivered (Mohammad, et al., 2013). Also, the applied of CRM technology is predictable to improve the firms capability to maintain beneficial customer relationships by enabling information integration and sharing that influences smooth and efficient firm-customer interactions, suitable analysis of customer data and customization of response (Mukerjee & Singh, 2009).

Furthermore, Sirirak et al. (2011) found that hotels have adopted ICT as a tool because of increasing competition and customer expectations. Chang, Park, & Chaiy, (2010) suggested that CRM technology component such as sales support, service support, analysis support, and data integration and access support, plays a pivotal role in translating CRM technology into business performance. Dadar & Amirnejad (2017) in their study represented that CRM technology has influence and increased the extent of customers' loyalty and satisfaction for Iranian company.

There are sufficient literatures in support of accurate customer data as an essential element to any successful CRM performance (McNally, 2007; Sin, et al., 2005; Yim et al., 2005) and, considering the fact that technology is said to be playing an important role in any CRM projects through its capacity to add value to a company's intelligence performance (Yueh et al., 2010; Kyootai and Kailas., 2007). The extant literatures have discussed the impact of Technology on CRM projects through its capability in collecting, storing, analyzing, and sharing both current and potential customers' information in ways that have greatly enhanced employees' ability in responding to the needs and request of the individual customers and therefore leading to better ways of attracting and retaining customers (Yueh et al., 2010; David and Wendy., 2009; Kyootai and Kailas., 2007; Nguyen et al, 2007; Sin, et al., 2005). The unprecedented advances in information technologies has assisted in improving the promise on customer value analysis through mass customization via CRM integrated approaches, such as web enabled approach, automation of marketing and customer support processes, customer information systems, and contact centers (McNally, 2007; Dean, 2007; Wang et al., 2006; Yim et al., 2005).

The advent of CRM has assisted the establishment of information intensive strategies which encompasses computer technologies in building and retaining long term relationships, by leveraging the existing technology and strategically linking technology deployment to alternative targeted strategic business units (Sin et al, 2005). It is worth mentioning here that the invention of technology in relationship management has to a great level assisted employee in all contact points to serve customers better, a strong indication that without technology, many customer centric programs would be impossible (David and Wendy., 2009; Kyootai and Kailas., 2007; and Sin et al., 2005).

2.5 CRM Organization

First and foremost, to build customer-oriented behaviors, organizations have to develop an appropriate working environment for service in work. For example, providing staff with the modern tools, and technology, customer satisfaction tracking and complaints management

systems, inspirational leadership, and appropriate rewards systems can all create these behaviors (Mechinda & Patterson, 2011). Researchers argue that CRM cannot be successful even if the organizations enjoy the most advanced technology and adapt a customer - oriented method, unless the project is completely integrated by them (Sin et al., 2005; Yim et al., 2005). Further, as a confirmation for this point Ku (2010) stresses that CRM success requires effective service and suitable operation procedures, rather than only technological systems. Therefore, the achievement of CRM completion depends on the active involvement of the employees in the organization itself (Boulding, Staelin, Ehret, & Johnston, 2005; Payne, 2006; Tamilarasan, 2011). Therefore, we can say that CRM organization has to be an essential means in the way they organize their actual business processes for employees and customers (Sin et al 2005; Yim et al., 2005). In the end, all of organizations resources (such as marketing capabilities, policies, culture, and organization structure) have to be integrated in order to implement CRM successfully and, in turn, develop organizations performance.

Most prior research also affirms the positive effect of CRM organization on customer retention (Yim et al., 2005), financial and marketing performance (Akrouch et al., 2011; Sin et al., 2005). Furthermore, Richards and Jones (2008) notice that CRM organization may even impact marketing decisions such as brand differentiation, price, communication, and distribution. For example, it has also been reported that several hotel chains cleverly quote their room prices according to the customer data that were collected previously (Nunes & Dréze, 2006). The main purpose behind collecting data about customers is to get a clear image about them from different perspectives (Sin et al., 2005). Therefore, organizations can validate such data to be able to institute and develop beneficial relationships with their customers (Zahay and Griffin, 2004).

2.6 Information Technology Governance (ITG)

As organizations rely on IT to some degree to conduct their business, ITG has gained importance in recent years as a key aspect of governance (Bhattacharjya and Chang 2007). ITG is important for an organization to attain its organisation objectives. In order to employ an effective ITG, a set of ITG mechanisms is compulsory (e.g., IT steering committee, IT organizational structure) that able to boosts actions consistent with the organization's mission, approach, standards, rules and culture (Vaswani 2003; Weill 2004). These ITG mechanisms are concentrated into several IS issues, for example the way significant IS related practices being are implemented, the way the strategies are aligned into practices, and the commitment on accountabilities and involvement rights related to decision processes (Sambamurthy and Zmud, 1999; Weill and Ross, 2004). ITG is defined as “ensuring that a company is effectively using information technology in all lines of business and leveraging capabilities across company appropriately” (NASCIO, 2008). The key purposes associated with ITG are reducing risk, assisting performance achievement, and monitor the technology related investments.

Sohal & Fitzpatrick, (2002), in a study of 59 large Australian organisations, argue that the extent to which IT is embedded in the organisation has a major impact on ITG arrangements. Perhaps the single-most seminal paper on this issue of there being no single approach to ITG is from Weill & Ross, (2004). In a study of 300 enterprises across 23 countries, Weill & Ross were unable to identify a single best formula for ITG. Drawing on the best practices of these 300 organisations, Weill & Ross developed what they describe as a one-page framework to assist organisations to

design and communicate their own ITG. This framework proposes a matrix for assigning decision responsibility for five areas of ITG: 1) IT Principles; 2) IT Architecture; 3) IT Infrastructure; 4) Business Application Needs; and 5) IT Investment and Prioritisation. Importantly, Weill & Ross, (2004) highlighted that ITG needs to extend beyond IT investment and prioritisation decisions to include operational and technical aspects of IT, namely IT principles, IT architecture and IT infrastructure.

Buchwald, Urbach, & Ahlemann (2014) have examine to find the determinants that influence and resulting ITG success. They noted that although management acknowledge the ITG importance and its potential but majority of them confess that status of ITG implementation is weakening. Thus to escalate the significance of ITG, active management support is needed in empowering and supporting the ITG execution and continuously assuring adequate resource with sufficient budget and proficient people; and constantly attempt to attain commitment of employees towards technology acceptance. In addition, law and regulation and the IT related awareness are two main determinant for ITG success. Further, it was noted that the execution of ITG framework was primarily motivated by regulatory pressures such as SOX, Basel II, and other regulatory bodies (Lunardi et al., 2014b).

Based on a case study examination of a complex organizations in Europe and North America, ITG effectiveness is influenced by the context and contingencies in the organisation such as environmental condition, decision making management tools and formalised procedures (Ribbers et al., 2002). ITG- IT value delivery also depends on a variety of enterprise factors, for example organisation size, structure, organisation process, culture, skills, knowledge and capabilities (Guangming 2010). Basically, the ITG value delivery was also affected by several organisation resources such as knowledge management ability (Tanriverdi, 2005); functional capabilities (Ravichandran and Lertewongsatien (2005); type of IT innovation, type of organization, stage of adoption, organisation size (Lee and Xia, 2006) and clear policies, procedures are important for effective IT governance mechanism (Tsai et al., 2015).

The implementation of ITG anticipated to have impact on operation processes that resulted in the organisational performance (Dehning and Richardson, 2002). There are some studies analysing the relationship between ITG and productivity (Weill and Ross, 2005; Liang et al., 2011). IT can help firms reduce or avoid operational, administrative and marketing costs. The use of technology has improved the operational and supply chain processes efficiently within and across organisation (Ilebrand et al., 2010). ITG further supports and facilitates the organizational growth (Weill and Ross, 2004). IT investments permit organisations form new value-added plan to meets the expectation of the customers (Mithas et al., 2012). Lunardi et al. (2014a) analysis indicates that organisations that implementing ITG noticeably enhanced their performance specifically in term of profitability by increasing the operation thru the effective usage of technology and cost minimisation. As such, adoption of ITG practices is associated to improvements in different financial metrics, thus, maturity of ITG initiatives can affect the governance performance and, consequently, the organizational performance.

Weill and Ross (2004) describe ITG performance as ITG's effectiveness in fulfilling four outcomes perceived importance by the organisation which are: "the cost-effective use of IT as well

as the effective use of IT for asset utilization, growth, and business flexibility” and law and regulatory compliance (Bowen et al., 2007). Liang et al. (2011), analysing the perception of 334 IT executives from mid- to large-sized firms in Taiwan, found that ITG maturity enables strategic alignment, which in turn yields better organizational performance. Blackmer (2005) found that strategic alignment may assure the timely IT deliverables within budget. A study by Tsai et al. (2015) noted that service quality influence ERP performance, and ITG value delivery was noted to contribute partial mediating role between service quality and ERP performance. As such, ITG is very important since technology issues have turn into more complex (Read 2004). Consequently, organisation needs to emphasise the importance of effective ITG adoption to increase system performance. Lazic et al. (2011) suggest that IT relatedness and business process relatedness mediated the relationship between ITG and organisational performance.

2.7 Telecommunications Performance

CRM dimensions evaluation was assessed in a number of ways, including customer satisfaction (Abdulateef et al., 2010), market effectiveness and financial performance (Sin et al., 2005), customer performance and financial performance (Akroush et al., 2011), and customer retention and sales growth (Yim et al., 2005). The use of other dimensions of performance is beneficial as suggested by previous studies (Sin et al., 2005). Therefore, this study will use the Balance Scorecard (BSC) dimensions to evaluate the impact of CRM dimensions on telecommunications performance.

The present study uses a Balance Score Card (BSC) dimension to evaluate hotel performance because financial figures cannot provide a full understanding of CRM impact and result and therefore the total performance perspective should be employed in the evaluation of CRM results (Wu and Hung, 2007). In addition, existing literature reveals that the use of balance score card(BSC) to evaluate the impact of CRM on business performance is critical because it is a useful tool to provide an in depth understanding of enterprise’s total operation performance (Wu and Lu, 2012; Wu and Hung, 2007).

Kim, Suh, & Hwang (2003) proposed customer-oriented BSC evaluation model that measured CRM effectiveness, which consists of four perspectives: customer knowledge, customer interaction, customer values and customer satisfaction. Elbanna, Eid, & Kamel, (2015) assessed performance measurement in the hospitality industry. Their finding concerned with the innovation and learning perspective which is separated to two; the first was labelled and the innovation perspectives and the second called learning perspectives. Therefore, they suggest that to measure telecommunications industry it is more reliable to measure using five performance perspective which are; financial, customer, internal business, innovation, and learning.

3. Theoretical Background and Conceptual Model

The proposed model of this study conceptualizes the relationship among CRM dimensions, IT Governance, and telecommunications performance. The relationship is based on the resource based view that suggests that the performance of the firm is influenced by its internal resources and capabilities; a firm obtains better performance by making more effective use of its resources than competitors.

The resource-based view (RBV) and the stakeholder perspective serve as the theoretical foundation of this research. Both perspectives suggest that performance is determined by a firm's resource endowment and the firm's effectiveness at converting these resources into capabilities (Barney, 1991; Day, 1994). Resources represent a firm's assets, knowledge, and business processes used to implement a strategy. Capabilities, on the other hand, are defined as an organization's ability to assemble, integrate, and deploy resources in combination to achieve a competitive advantage (Day, 1994; Eisenhardt & Martin, 2000; Rapp, Trainor, & Agnihotri, 2010; Teece, Pisano, & Shuen, 1997).

RBV uses the internal characteristics of firms to explain their heterogeneity in strategy and performance. According to the main assumption of RBV, only firms with certain resources and capabilities with special characteristics will gain competitive advantages and, therefore, achieve superior performance. The distinctiveness of a factor depends on its rarity, value, durability, nonsubstitutability, inimitability and appropriability of generated rents (Amit & Schoemaker, 1993; Barney, 1986, 1991; Grant, 1991; Peteraf, 1993; Wernerfelt, 1984). Sustainable competitive advantage determines the ability of an organization to reconfigure and to constantly renew its supply of valuable and idiosyncratic resources and capabilities to foster innovation (Eisenhardt & Martin, 2000; Grant, 1996; Nelson & Winter, 1982; Teece, Pisano, & Shuen, 1997; Winter, 2000). This model involves four dimensions of CRM which include customer orientation, CRM organization, knowledge management, and technology based CRM. This model is built on previous studies (Abdullateef et al., 2010; Chang et al., 2010; Sin et al., 2005; Wu and Lu, 2012) while the relationship between variables in this model is based on RBV theory which proposes that organizations having valuable resources can successfully implement business strategy to create competitive advantage and consequently improve organization performance (Barney and Delwyn, 2007).

The proposed research framework as illustrated in Figure 1 comprises CRM dimensions as the predictors of ITG and organizational performance. The CRM dimensions consist of customer orientation, knowledge management, CRM support and CRM personnel. The ITG is proposed to be moderated relationship between CRM dimensions and organizational performance.

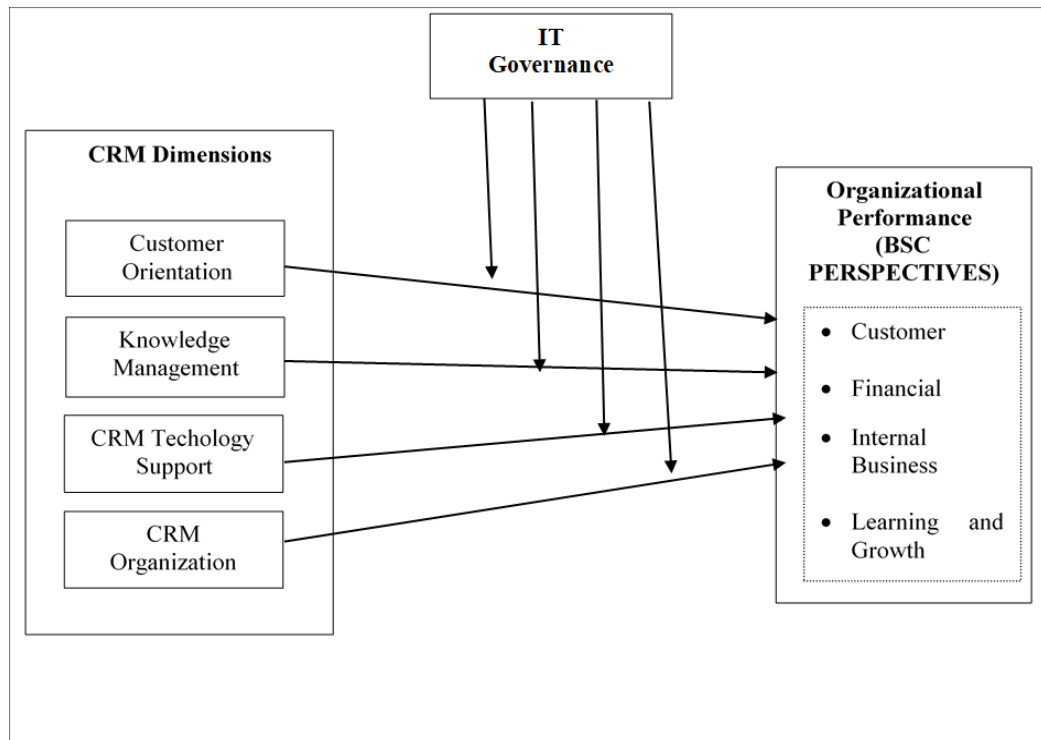


Figure 1: The proposed research framework

4. Conclusion and Recommendation

In conclusion, this study has provided a theoretical model to show the firm relationship between CRM dimensions, IT Governance and telecommunications performance. It contributes enormously to the body of knowledge, as it provides a comprehensive framework that is used for explaining the impact of the CRM four dimensions on telecommunication performance. It is an accepted fact that the concept of customer relationship management neither has been fully verified, nor empirically accessed to determine the strength of the relationship between dimensions of customer-relationship management and telecommunications industry performance. Moreover, this study uniquely extends the body of knowledge by explaining the theoretical possibilities of the mediating role of IT Governance in the relationship between CRM dimensions and telecommunications performance.

It is worth mentioning that this paper will also raise awareness among telecommunication managers to pay more attention to CRM dimensions, IT Governance, and assist them in improving telecommunication performance and competitiveness. However, the fact remains that this study has its limitations. First, because it is in dire need of further verification by collecting data from the hotel industries to test the proposed model and further investigate the hypothesized relationships. Second, the model is more focused on the telecommunication industry and therefore, there is a need to test it in different sectors such as the financial sector.

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Designing a Programming Course Using Scratch Programming Environment to Enhance System Thinking Skill for Primary Students

Meechai Junpho^{1*}, Alisa Songsriwittaya²

¹ Learning Innovation and Technology Program, Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

² Department of Computer Education and Information Technology, Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

*Corresponding Author: meechai.junpho@mail.kmutt.ac.th

Abstract: *Most instructional practices reported focus on memorization with relatively little experimentation led to a basic development in learners' systematic thinking skills. The present study aimed to design a computer programming course using Scratch programming environment and Raspberry Pi in order to enhance primary school students' system thinking skills. Based on reflections of shortcomings in the teaching during the previous semester, in this paper, a new computer programming course using Scratch is developed, along with an appropriate explanation of how Scratch is used in this course in parallel to the system thinking process. In the future, experimenting and testing the proposed designed programming course with primary school students in terms of determining the effectiveness of the proposed course regarding the improvement of system thinking skills will be conducted.*

Keywords: Programming Course Design, Scratch, System Thinking Skill, Primary School Student

1. Introduction

Indeed, the reform of Thai education has been trying to keep up with the twenty-first-century rate of change in the current world in which the management has been a focal point of state action. Thai educational management aimed at producing people and focus on the use of workers who possess the necessary knowledge, thinking skills, analytical skills, imagination, ability to learn new things, adaptability, and ability to work and solve problems in a highly competitive environment (Office of the Education Council, 2015).

To provide students with enriched learning experiences, it is necessary to use appropriate teaching materials, especially in science and technology teaching, which is characterized by systematic thinking processes. In this conception, good teaching practice requires the proper use of sophisticated tools or materials that provide students with a systematic understanding of the thinking process. However, nowadays it is found that most instructional practices reported focus on memorization with relatively little experimentation led to a basic development in learners regarding their systematic thinking skill (Office of the Basic Education Commission, 2013).

Programming practice is an essential tool to empower problem-solving, system thinking and analysis and creativity. It allows the learners to express their thoughts through the created program and communicate to the users (Pattanachuanom, 2012). One of the innovative approaches to learning is to use robots as supporting teaching material for students. It encourages students to practice thinking outside the box and carefully observe self-paced problematic conditions which motivate students, develop a positive attitude towards technology learning, and acquire core academic skills such as science, mathematics, engineering, and fabrication, especially in the robotics field. Students can learn from trial and error logically, recognize their mistakes and errors, be ready to solve various problems, and learn to apply their knowledge into practice until they gain a deeper understanding of the term practice by themselves (The Institute for the Promotion of Teaching Science and Technology, 2013).

Looking closely through the core concept of Scratch programming language, it exhibited that this programming language was likely consistent with the 5-step systematic theory of thinking, e.g., input, processing, output, feedback, and environment. Systems thinking is the primary conceptual framework as a school of thought, as a holistic approach to problem-solving and analysis. Consequently, in system theory, systematic thinking connects individual key dimensions of understanding thinking with their fundamental belief. Typically, common people already have certain qualities of a systematic understanding of things in the world that congruent with the system theory. Nevertheless, this ability seems to be performed well at a different level (Akkhat, 2016).

There were many potential benefits to the concept of systematic thinking. First, it helps individuals to generate ideas to reform the organization completely and effectively. Second, it helps to coordinate and work with others in line with internal management processes and systems. Third, it helps solve problems and make the decision as well as effectively resolve conflicts that will arise in the organization. Finally, it helps to investigate and observe the interactive process of changes that will occur to the internal system. These kinds of changes take place in a systematic manner by connecting each other and can resolve the situation effectively (Watthanarong, 2016).

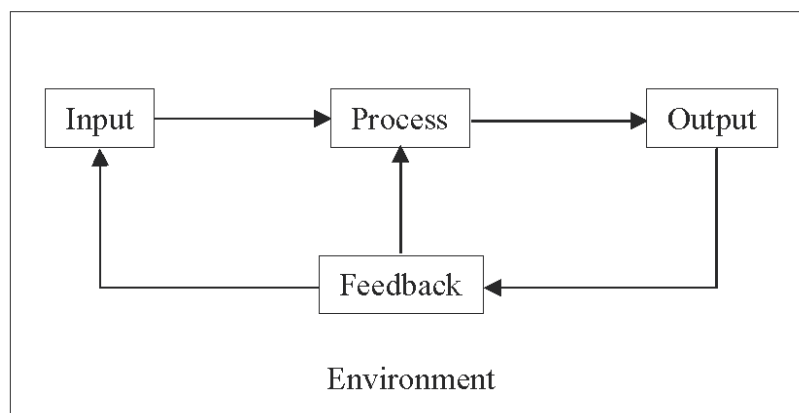


Figure 1: System Theory Components (Assaraf & Orion, 2005)

Draws on the viewpoint regarding the relationship between computer programming and system thinking as well as acknowledged and understand how important Scratch programming, which is able to enhance individual system thinking, the researchers aimed to design a computer

programming course using robots in order to enhance students' system thinking. The Scratch software is a great way to get young people started with programming and develop a general interest in computing. Scratch is an easy-to-use block-based visual programming software that can run on a Raspberry Pi.

Notably, researchers used Raspberry Pi which is a credit-card-sized single-board computer, or a series of small single-board computers to represent the robot. The decision in using Raspberry Pi rests on the assumption that the researchers utilized them in organizing learning activities for teaching computer programming to the students who intend to develop their systems thinking skills and prepare for further study in computer programming.

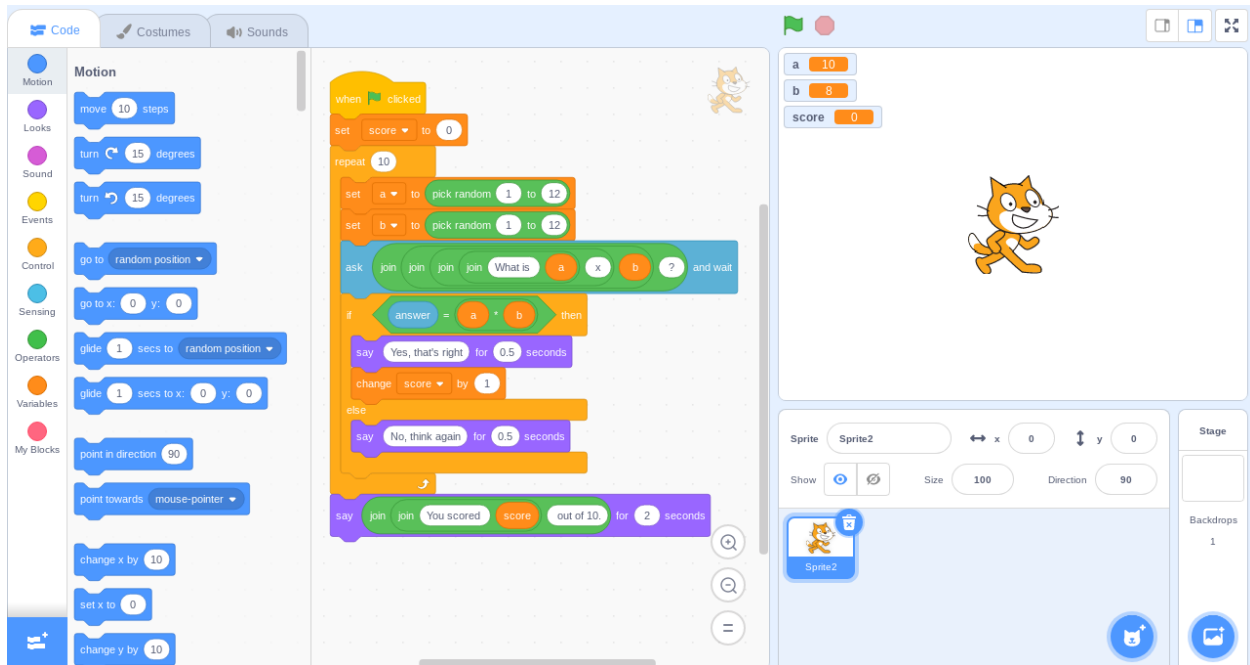


Figure 2: Scratch Programming Environment

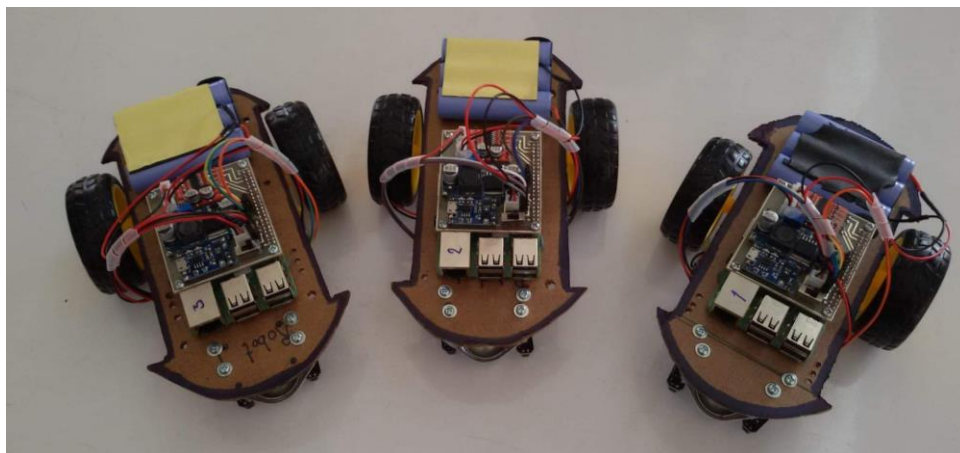


Figure 3: Raspberry Pi Robot

2. Course Design Preparation

Based on reflections of shortcomings in the teaching during the previous semesters, the instructor searched for a better suited and more appropriate design of new teaching methods in order to enhance the system thinking of students. Then, the researchers reconsidered and redesigned teaching methods with Scratch programming and Raspberry Pi for this present study. The authors studied the related literature and designed the teaching methods and learning activities for students and had discussions with the research team members to check the teaching and activities, and how to execute appropriate teaching for the students in this study.

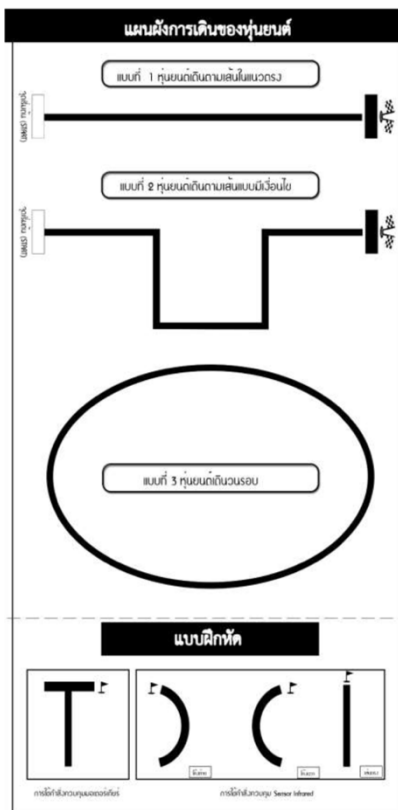


Figure 4: Students' Practice Exercise

3. Course Design Result

According to the course design, all students will form into three groups, each group contain three members. Students learn with the Scratch Programming course which coding run on a Raspberry Pi. They attend the course once a week. The course will conduct within four weeks and consist of three units. From week 1 to week 3, the class activities are organized with the same procedure. First, the instructor introduces and demonstrates the content unit. Second, students practice the lesson by practically working in a group.

In addition, on week 4, the instructor asks the students in all groups to combine all lessons which they all learned in three previous weeks to apply in to practice in the more and last challenging test. Table 1 presents the whole course design.

Table 1: Course Designing

System Theory Component	Week 1: Introduction to Scratch and Raspberry Pi 3	Week 2: Applying Code Command to Control Gear Motor	Week 3: Writing Code to Read Infrared Sensor Data	Week 4: Combining All Three Units to Control Robot
Input	<p>Unit 1 Introduction to Scratch and Raspberry Pi 3</p> <ol style="list-style-type: none"> 1. Introduction to basic Scratch 2. Scratch components 3. Scratch tools 4. Introduction to Raspberry Pi 3 <p>Instructor and students: questions and answers regarding prior knowledge</p> <ul style="list-style-type: none"> - Question 1: What is Scratch? - Question 2: What is Raspberry Pi 3? 	<p>Unit 2 Applying Code Command to Control Gear Motor</p> <ol style="list-style-type: none"> 1. Controlling the clockwise movement of gear motor 2 Controlling reverse clockwise movement of gear motor 3. Controlling gear motor to move forward 4. Controlling gear motor to move backward <p>Instructor and students: questions and answers regarding prior knowledge</p> <ul style="list-style-type: none"> - Question 1: What is a gear motor? - Question 2: What is the gear motor connection? 	<p>Unit 3 Using Code to Read Infrared Sensor data</p> <ol style="list-style-type: none"> 1. Infrared Sensor functions 2. using Infrared Sensor with gear Motor <p>Instructor and students: questions and answers regarding prior knowledge</p> <ul style="list-style-type: none"> - Question 1: What is an Infrared Sensor? - Question 2: How can Infrared Sensor work with gear motor? 	<p>Unit 4 applying all three-unit lessons to practice with real robots</p> <ol style="list-style-type: none"> 1. Logical order of code writing 2. Testing Scratch programming code with raspberry pi 3 Module B+ <p>Instructor and students: questions and answers regarding prior knowledge</p> <ul style="list-style-type: none"> - Question 1: how can Scratch Programming operate with Raspberry Pi 3 be able to command the robot to move? - Question 2: what are the courses that Raspberry Pi 3 can apply with? Give example.
Process	<p>Instructor:</p> <ol style="list-style-type: none"> 1. Describe principles of how to use basic Scratch 2. Describe principles of how to use Raspberry Pi 3 <p>Students:</p> <ol style="list-style-type: none"> 1. Practice using Scratch programming 2. Practice basic connecting Raspberry Pi 3 	<p>Instructor:</p> <ol style="list-style-type: none"> 1. Describe gear motor clockwise movement 2. Describe gear motor reverse clockwise movement 3. Describe gear motor movement forward 4. Describe gear motor movement backward <p>Students:</p> <p>Practice coding and testing how to use code to control all</p>	<p>Instructor:</p> <ol style="list-style-type: none"> 1. Describe the principles of Infrared Sensor function 2. Describe how gear motor work with Infrared Sensor <p>Students:</p> <ol style="list-style-type: none"> 1. Practice Using Code to Read Infrared Sensor data 	<p>The instructor observed students while they are working and provide help when students need.</p> <p>Students:</p> <ol style="list-style-type: none"> 1. Writing code in logical order 2. Testing Scratch programming code with raspberry pi 3 Module B+ <ul style="list-style-type: none"> - Writing code to command the robot to move straight forward - Writing code with conditions - Writing code to command the robot to move in a circle

System Theory Component	Week 1: Introduction to Scratch and Raspberry Pi 3	Week 2: Applying Code Command to Control Gear Motor	Week 3: Writing Code to Read Infrared Sensor Data	Week 4: Combining All Three Units to Control Robot
		gear motor movements		
Output	Students' basic knowledge regarding Scratch and Raspberry Pi 3	Students' basic knowledge regarding all how to use code to control gear motor movements	Students' basic knowledge regarding how to use Code to Read Infrared Sensor data	Students' knowledge regarding all three units and understand how to combine together in order to put into practice with real robot
Feedback	Instructor answers and gives feedback regarding students' practice	Instructor answers and gives feedback regarding students' practice	Instructor answers and gives feedback regarding students' practices	Instructor answers and gives feedback regarding students' practices
Environment	Instructor and students summarize the content regarding Scratch and Raspberry Pi 3	Instructor and students summarize the content regarding all gear motor movements	Instructor and students summarize the content regarding Infrared Sensor and how it works with Gear Motor	Instructor and students summarize all the three content units and how they merge together and put into practice with the robot

4. Conclusion

There was likely a link between computer programming and system thinking as well as the acknowledgment and understanding regarding how important Scratch programming. Grounded on this assumption, Scratch programming is would no doubt be able to enhance individual system thinking. Therefore, a new computer programming course using Scratch programming environment and Raspberry Pi in order to enhance primary school students' system thinking skills was developed based on the aforementioned perceptions. The programming course presented how the Scratch programming environment was in parallel with the system thinking process. In the future, experimenting and testing the proposed designed programming course using primary school students as the sample group in terms of determining the effectiveness of the proposed course regarding the improvement of system thinking will be conducted.

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Determinants of Peer Reporting Intentions of the Cadets of the Philippine Military Academy

Maria Victoria B Dariano^{1*}, Allan P Oabel^{1*}

¹ Philippine Military Academy, Baguio City, Philippines

*Corresponding Author: alab_almac@yahoo.com, apoabel04@gmail.com

Abstract: *The Philippine Military Academy has its very own sets of values and standards formally expressed in its Honor Code. However, there are violations of the Code. The challenge is affirming ethical behavior and establishing an environment for the healthy exercise of peer reporting. This is captured using the PMA Cadet Toleration Questionnaire administered to 253 fourth class cadets. It consists of twelve statements in a 3x2x2 design (perceived severity of the offense – low, moderate & high; emotional closeness- high & low; and bystander intervention – presence and absence of other witnesses). Results show that the majority of the Cadets are most likely to report offenses that are perceived to be “high”; therefore, those perceived as “low severity” will be tolerated. When the offender is a friend, the violation will also be tolerated; while infractions made by a relative stranger will be reported. When the offense is witnessed by another cadet, the respondent will report the violation regardless of perceived severity and emotional closeness with the offender. Class membership and company assignment have no significant influence in dictating one’s ethical decision to report. Therefore, knowing and doing what is right might be more than the scope of the Honor Code and its supposedly progressive manner of indoctrination as one graduates to another year. These situational considerations uncovered how the cadets process and act when infractions are committed. The Academy can restructure situations/policies to encourage peer reporting and reduce the frequency of Honor violations.*

Keywords: Peer Reporting Intentions, Social Psychology, Honor Code, Philippine Military Academy, Philippines

1. Introduction

Unethical behaviors, specifically, have detrimental effects on both the psychological and physical well-being of the victim (Giacalone et al., 2016). Cardiovascular ailment, sleep disorder, anxiety (Klonoff et al., 1999), lowered self-esteem, nervousness, terror (Bano & Malik, 2013), job dissatisfaction, and organizational commitment (Vartia, 2001) are the prevalent manifestations and consequences of unethical treatment in the workplace. These eventually damage not only the victim but also the organization (Lin et al., 2005).

Appelbaum (2014) postulates that there are three (3) effective means to control deviant behaviors in an organization. One is determining the personality traits of the member as their individualities may pose a potential threat to the organization. Another is leadership style. The leader sets the tone of the high standard and clarity of vision. If the leader is inspiring, then the members are motivated. This factor reduces the chance of bullying, for instance. Lastly, the organizational construct – the

policies in place and the working conditions - relates to the behavior of its members. So when there is a regulation of acceptable behavior, then the member is protected and ethical conduct is reinforced. One way to maximize the effectiveness of workplace policy against unethical conduct is to encourage peer reporting intentions. Peer Reporting Intention (PRI) is defined as “notifying a supervisor, internal auditor, or some other authority figure of a fellow group member’s misconduct/violation” (Curphy et al., 1998).

In the works of literature involving the police, the decision to peer report depends upon their perception and attitude towards unethical behavior. This finding came out in the study of Klockars et al. (2000) upon studying the data gathered from 3,235 police officers from the 30 police agencies. They discovered that the police are prompted to peer report based on the perceived gravity of the violation. An example used was the scenario wherein the police was inquired which violation will be reported - receiving gifts or burglary. The result showed that the violation with a greater magnitude will prompt higher peer reporting intention. The same result was discovered upon conducting a similar study among the 300 police officers in the state of Georgia, USA. (Rothwell & Baldwin, 2007) The scenarios used as options are: between major violations over minor violations and felonies versus misdemeanors.

This is grounded on the theory of Jones (1991) stating that the relationship between moral intensity (perceived seriousness of the violation) has a positive and direct influence on ethical decision making (peer reporting intention). This theory was also tested by the study among the police officers of the Philadelphia Police Department. It considered the demographic factors (age, gender, race, marital status, years of service, and rank) in the analysis. It was found out that the demographic variables have no statistically significant influence on peer reporting intentions, all other else constant. On the other hand, it was found out that the decision to peer report was based on three factors which are: perceived seriousness of the unethical behavior, the police’s attitude towards upholding their code, and, finally, the situation that involves the violation of the rules/law. (Kargin, 2010) Social consensus also manifested in various studies as a significant factor in pre-empting one’s propensity to peer report (Barnett & Valentine, 2004; Butterfield et al., 2000; Harrington, 1997; Singer et al., 1998; and Singhapakdi et al., 1996).

Kargin (2011) argues that the ethical decision and the behavior of the police are determinants of the quality of their work. At the same time, this dictates the well-being of the society, as well, because they are the guardians of public order, enforcers of the law, and ensuring safety by arresting criminal activities. In a separate study, still about the police officers, he framed his analysis based on the demographics (age, gender, work experience, and education), dispositional (locus of control), organizational (existences of codes of ethics, rewards, and sanctions, and ethical climate), and issue-related factors to determine the peer reporting intentions of the police officers. He found out that the demographics have no significant influence on peer reporting. On the other hand, when dealing with the dispositional variable, the study discovered that those with an external locus of control tend to diminish the respondent’s tendency to peer report violations. Those with an external locus of control attribute the consequences of their actions to other factors, except for the self. On the other hand, those who have an internal locus of control are inclined towards peer-reporting misconduct. Individuals with an internal locus of control are characterized by attributing the ramifications of their actions to the self. They see the self as responsible for the action and its

consequences. The organizational factors tell a valuable story. All three measures (presence of existing code of ethics, rewards, and punishment, and ethical climate) are proven to have a significant direct relationship to peer reporting intention. He highlights the importance of the ethical climate in the equation. It is defined as, “a shared perception among organization members regarding the criteria (e.g., egoism, benevolence, and principle) and focus (e.g., individual, group, and society) of reasoning within an organization” (Trevino et al., 2006). Particularly discussed was the effect of the Referent Others. This subscribes to the social learning theory that posits that ethical behavior is acquired through observations/interactions. The last factor of issue-related is simply measured by the individual’s perceived seriousness of the offense or violation. Their decision to peer report will then be dictated by the magnitude of consequences, social consensus, probability of effect, immediacy, proximity, and concentration of effect. It was found out that the magnitude of the consequences and the social consensus has the heaviest bearing on the respondent’s ethical decision-making.

The US Air Forces Academy has a different nature of training and work. Thus, when a study about the propensity of the cadets to report was conducted, new variables surfaced. Curphy et al. (1998) affirm that the perceived seriousness of the violation is, indeed, a significant factor in influencing the cadet’s decision to peer report. This supports the other studies previously cited. More interestingly are the factors: (1) emotional closeness of the person committing the misconduct, and (2) and the presence or absence of other witnesses to the misconduct which influence the USAF cadets to report violations. The questionnaire labeled as Cadet Toleration Questionnaire was used. It is composed of scenarios to measure the levels of severity (high, medium, and low) and emotional closeness (high and low). The presence of witnesses was measured also based on the 12 scenarios presented. Eighty cadets answered based on low-presence and high-presence incidents. The low-presence incident is composed of 1 observer, the cadet close to the violator, and the honor code violator, while the high-presence scenario involves more than 3 actors. The USAF cadets have 5 options that range from toleration (weak action) to speaking up (strong action).

When it comes to analyzing the factor of emotional closeness between the cadet and the honor code violator, the report shows that the cadet will first confront the violator if the offense is perceived to be less severe. On the other hand, if the offense is severe, they are prompted to say something regardless of the degree of closeness to the violator. In being driven to turn in violators, the presence of another observer stirs the ethical decision-making process of the cadet who is close to the violator. On the other hand, they are obliged to report the violator, regardless of the degree of closeness and severity of the offense, for fear of being reported for toleration. The authors of this study pose that their conclusion may have a shortcoming. Since it involves simulated/hypothetical scenarios, the responses of the USAF cadets may still be different in a real setting. However, in the absence of an established tool to measure such ethical concerns, this is a good source of preliminary understanding of the said phenomenon.

Curphy et al. (1998) pinpointed the common answers of the cadets to talk to the violator if the offense is seen to be less severe with the response of, “but I’d let him/her know that I don’t plan to act”. It means that there is this intended inaction to the said violation of the Honor Code. This unsettling finding was explored by Binikos (2008). The primary factor for a cadet to turn in a violator is organizational trust. This is commonly called whistleblowing. Whistleblowing is

“unauthorized disclosure of information about perceived organizational wrongdoing, by a member or former members of the organization, to parties that are in a position to take action, where this disclosure is in the public interest” (Binikos, 2008). It lies within the grain of peer reporting intention such that it is an ethical dilemma that relies on the severity and persistence of the problem, presence of the triggering event, organizational climate, and the individual’s sense of morality.

Since peer reporting and whistleblowing entail hostility from peers, one may be labeled as a traitor. This group norm may even be costly if the issue is set out in the public. Therefore, it is a choice. In the said study, the preferred option was between confronting the wrongdoer or remaining silent. Reporting a violation is more likely to occur if the act is for the benefit of the majority and the promotion of the organization’s effectiveness. This is the same result in the study of Victor et al. (1993) by supporting their hypothesis: “Perceptions that group members are harmed by peer misconduct will be positively associated with the inclination to peer report.” On the other hand, the whistleblower will be intimidated and resort to silence if the wrongdoer is rewarded by the organization or if the violation was done by a majority of the members. Thus, fair treatment and perceived justice are crucial determinants (Victor et al., 1993). In another sensitive issue of sexual assault among the women in the military, Mengeling et al. (2014) identified a lack of confidentiality, adverse treatment by peers, and beliefs that nothing would be done as factors that kept the victim or the witness silent. It is, therefore, important for the organization to present itself as trustworthy, competent, reliable, open, etc. (Atkinson, 2003).

Coming forward is an ethical decision. This prompts peer reporting behavior. (Ajzen & Fishbein, 1980) It is important for every organization as it helps the higher authority inhibit the unethical behavior of its members. In the several studies reviewed in this section, it is perceived that there are three (3) variables that influence a person’s tendency to peer report. These are a) perceived severity of the offense, b) emotional closeness to the violator, and c) the presence/absence of other witnesses to the violation. On the other hand, the studies reviewed fail to consider the Class membership of the respondents as a factor that may influence their ethical decision-making. In the military structure, each cadet receives Honor Code/ethics code familiarization. Therefore, the longer one stays in the Academy, it is expected that a firmer grasp of knowing and doing the right thing. Moreover, Company assignment may affect the reporting intention of the cadets, as well. It is assumed that each company may have adopted a set of informal rules or standards to regulate or even normalize their company mate’s behavior. This is the common manifestation of group norms. Therefore, one’s judgment or evaluation of the seriousness of an offense and how to act upon it may be based on strong loyalty norms. This study explores the common variables of peer reporting intentions and considers the class membership and company assignment of the military cadets of the Philippine Military Academy.

It is an extension of Curphy’s (1998) research about peer reporting intention. It employs Curphy’s factors affecting the ethical decision-making of the PMA cadets. This will also include other variables reflected as gaps in his study which are the years of stay in PMA in terms of class membership and company assignment where cadets may have adopted informal rules/standards to regulate member’s behavior. Problems posed by this study are the following:

1. What will the cadets do when there are Honor Code violations?
2. How does the Class membership of the PMA Cadets affect their Peer Reporting Intentions?

3. How does the Company assignment of the PMA Cadets affect their Peer Reporting Intentions?

2. Methodology

This study is quantitative descriptive research. The answers to the survey questionnaire are the main sources of information that are used to address the problems of this study. The study was conducted at the Philippine Military Academy. The researchers used stratified random sampling in selecting the 253 cadets who participated in the study. It utilized the Cadet Toleration Questionnaire. It is a pen and paper type of test where the cadets answered each statement in a 3x2x2 design (perceived severity of the offense – low, moderate & high; emotional closeness- high & low; and bystander intervention – presence and absence (indicated as ‘high’ and ‘low’) of other witnesses). It is a form designed following the theme by Gordon Curphy et al. (1998) in assessing the potentials of the US Air Force cadets to peer report. It is composed of twelve (12) statements reflecting Honor Code violation scenarios to test the cadet’s Peer Reporting Intention (PRI) based on the a) severity of the violation, b) emotional closeness of the person committing the violation, and c) presence/absence of other witnesses to the violation. This is completely customized to the PMA’s Honor Code. The purpose of the questionnaire is to assess the Peer Reporting Intentions for Honor-related violations among the military academy cadets. There will be one scenario for each combination of the factors as shown in Table 1:

Table 1: Corresponding Combination of Variables per Scenario

Statement	Combination of Variables
Scenario 1	Low severity of offense x Low Emotional Closeness to violator x Absence of Other Witness
Scenario 2	Low severity of offense x Low Emotional Closeness to violator x Presence of Other Witness
Scenario 3	Low severity of offense x High Emotional Closeness to violator x Presence of Other Witness
Scenario 4	Low severity of offense x High Emotional Closeness to violator x Absence of Other Witness
Scenario 5	Moderate severity of offense x Low Emotional Closeness to violator x Absence of Other Witness
Scenario 6	Moderate severity of offense x Low Emotional Closeness to violator x Presence of Other Witness
Scenario 7	Moderate severity of offense x High Emotional Closeness to violator x Absence of Other Witness
Scenario 8	Moderate severity of offense x High Emotional Closeness to violator x Presence of Other Witness
Scenario 9	High severity of offense x Low Emotional Closeness to violator x Absence of Other Witness
Scenario 10	High severity of offense x Low Emotional Closeness to violator x Presence of Other Witness
Scenario 11	High severity of offense x High Emotional Closeness to violator x Absence of Other Witness
Scenario 12	High severity of offense x High Emotional Closeness to violator x Presence of Other Witness

The survey is distributed to the 253 members, stratified by class, of the Cadet Corps Armed Forces of the Philippines. This was determined using the G*Power 3.0 software. This determines the scientifically acceptable sample to come up with acceptable findings. It is accepted among many scientific and peer-reviewed journals in evaluating the publish-worthiness of an article. The researchers have entered the following values in F Tests ANOVA: Fixed effects, special, main effects, and interactions – A priori: Effect size = 0.25, alpha error = 0.05, Numerator df = 2, and the number of groups = 32. The Numerator df refers to specify the effect you want to power. This

value is calculated by taking the number of levels for the predictor variable or interaction that the researchers want to power and subtracting one. For this study, the Numerator df is computed as $(3-1)*(2-1)*(2-1) - 1$, for 3 levels of severity, 2 levels of emotional closeness, and 2 for presence/absence of witness to violation. For the number of groups, this is calculated by multiplying the number of levels in both predictor variables. For this study, there are eight companies and four classes, so $8 \times 4 = 32$. This is utilized to see if there is a difference in cadet's scores based on the company (Alfa to Hawk) and class (first class to fourth class). With this, there is a 95% chance of correctly rejecting the null hypothesis of no difference, with a total of 253 cadets. This questionnaire has 2 correct responses which are options D and E. Said tool is tested for reliability and validity.

The cadets indicate their answer with the following options:

- A. I don't see it as Honor related, but I would consider taking administrative actions.
- B. Do nothing, but I'd contemplate the possibility of Honor implications.
- C. Speak to the person, but I'd let him/her know I don't plan to act.
- D. Speak to the person and allow him/her to report before I do.
- E. I'd report the violation immediately to my squadron Honor representative.

The researchers obtain permission from the Academy for the distribution of the Cadet Toleration Questionnaire among the 253 PMA Cadets. This is randomly distributed per class (approximately equal). These demographics are representative of the 1,080 cadets of the Cadet Corps Armed Forces of the Philippines. The respondents are informed that the results are for research purposes. Moreover, their identity remained confidential.

To determine how the cadets will respond when Honor Code violations are committed, means per response were generated. To address which level of the variables tested determines the cadet-respondent's Peer Reporting Intention, the Repeated-Measures Analysis of Variance, rANOVA is used. This pinpoints which level of independent variable contributes to the model. The F-test is the basis for determining its significance. The following hypotheses are used for concluding to answer the first problem of this study:

$H_0: \mu_1 = \mu_2 = \mu_3 = \dots = \mu_k \Rightarrow$ means are equal; therefore, there are no significant differences among the related population means, where: μ = population means and k = number of related groups.

$H_A: F_{\text{value}} > F_{\alpha} \Rightarrow$ at least two means are significantly different; therefore, keep the variable in the model.

For this study, the null hypothesis, H_0 , is that the means of each level of peer reporting variables are the same; i.e. same for the high, moderate, and low perceived severity of the offense; for high and low emotional closeness; and for absence and presence of other witnesses. On the other hand, the alternative hypothesis is that the mean of "high" severity, "low" emotional closeness, and "presence" of another witness to the violation are statistically significant.

In reporting this, the APA format is used to reflect the F value and the degrees of freedom. (Nath & Pavur 1985) The degrees of freedom need to be reported in APA format; e.g. F (df1, df2) = value. Another aspect to check is the p-value (p-value < 0.05 alpha value = reject the H₀). Finally, the effect size, reflected by the Eta-squared, η^2 , is indicated to determine how much the dependent variable is predicted by the independent variables, all other things constant. For interpretation, Cohen's d (1988) is used:

Table 2: Eta-squared Interpretation

η^2	Effect Size
0.0099	Small
0.0588	Medium
0.1379	Large

It is crucial to discover the ethical decision-making of the cadets to turn in offenders when the different levels of each variable are in interaction. The researchers intend also to ascertain whether there is a significant influence in the peer reporting decision of the cadets across class and company. This not only addresses the gaps in the study of Curphy et al. but also would be a reference for the Academy to determine whether the Honor Code indoctrination has any effect as they progress in their four-year training in PMA. The researchers then performed ANOVA to determine whether the Peer Reporting Intentions of the Cadet Corps Armed Forces of the Philippines is influenced by the class and company assignment. For this part, a 95% confidence level, or 0.05 margin of error, is used to determine its statistical significance.

3. Results and Discussions

A. Responses of Cadets vis-à-vis Honor Code Infractions

To answer the first problem of this study, the means for each response were gathered. The means for each of the response are presented in Table 3 below:

Table 3: Means for the Scenario Response Options

Response Option	Statement	Mean
A	I don't see it as Honor related, but I would consider taking administrative actions.	3.342
B	Do nothing, but I'd contemplate the possibility of Honor implications.	3.508
C	Speak to the person, but I'd let him/her know I don't plan to act.	9.258
D	Speak to the person and allow him/her to report before I do.	50.175
E	I'd report the violation immediately to my squadron Honor representative.	33.767

The "mean" refers to the average number of respondents who would act a certain way given the scenarios. Options A and B indicate a high tolerance to infractions. On the other hand, D and E options refer to strong intent to report the violation. In Table 3, the means range from a low of 3.342 to a high of 50.175. The majority of the respondents will still act according to the acceptable response of reporting the violation or talking to the offender to report oneself. On the other hand, despite the presence of Honor Code indoctrination, there are still cadets who will tolerate infractions. The relatively wide range of the means that is obtained indicates that the intention to

report a co-cadet who violates is not prodded by an “institutionally correct” (Curphy et al., 1998). This is contrary to the expectation of the Honor Code that any violations, regardless of perceived level of severity, emotional closeness, and presence/absence of another witness, the cadet will report the violation. This generalization is gathered from the condition wherein the “institutionally correct” answers are D and E, that is, to report oneself or to report the violator, respectively. The researchers probe deeper into this finding by dissecting the scenario according to levels.

A.1. Repeated Measures Analysis of Variance

The researchers employ the 3x2x2 repeated-measures design, rANOVA, that involves perceived severity of the offense (3 levels), emotional closeness (2 levels), and bystander effect (2 levels) to determine the Peer Reporting Intentions given the scenarios. In Cell Means, Cell M, the highest value implies the strongest influence to peer report given the level of the variable measured. Based on Table 4, it can be opined that there is a level of the variable that is significant in predicting propensity to Peer Report Honor-related violations. For one, the cadet-respondents are more likely to report when the infractions are perceived to be “High” severe; therefore, those violations which are perceived as “Low” severe will most likely be tolerated. They are also less likely to report offenses by cadets close to them. Moreover, the cadets are more likely to report violations when there are other witnesses.

When it comes to the two-way interactions of the variables, cadets have significantly stronger Peer Reporting Intention when the offenses are relatively severe and the offender is a relative stranger, $F(2, 251) = 55.13, p < 0.05$. Stronger reporting intention is also manifested for relatively severe, low-presence condition, $F(2, 251) = 12.10, p < 0.000$. The closeness by presence interaction is also significant, $F(1, 252) = 23.36, p < 0.05$. Moreover, the cadets have a stronger propensity to report infractions when it is committed by a relative stranger and there are other witnesses to the offense, $F(2, 251) = 23.36$. Finally, seen in the same table is the three-way interaction of the variables vis-a-vis its levels. In a three within-subjects test, the cadets have the stronger intention when the infraction is “High” severe, there are other witnesses, and the violator is emotionally close to them, $F(2, 251) = 82.52, p < 0.05$.

Table 4: Repeated-Measures Analysis of Variance Results

Factor	Cell M	F	df	η^2	Effect Size	
Severity	Low	3.827	67.15	2, 251	0.35	Large
	Moderate	4.111				
	High	4.289				
Closeness	Low	4.235	115.32	1, 252	0.31	Large
	High	3.916				
Presence	Low	4.001	42.87	1, 252	0.15	Large
	High	4.150				
Severity x Closeness		55.13	2, 251	0.31	Large	
Severity x Presence		12.10	2, 251	0.09	Large	
Closeness x Presence		23.36	1, 252	0.09	Large	
Severity x Closeness x Presence		82.52	2, 251	0.37	Large	

* $p < 0.05$

The models for the two-way interaction between perceived severity of offense*closeness, severity*presence, and closeness*presence achieved a large effect size. This means that the total variance can be accounted largely for those variables, holding other else constant. The same large effect size is achieved in the three-way interaction among severity, closeness, and presence. For a graphical illustration of the interaction, Figure 1 below is provided:



Figure 1: A plot of Cell Means, Cell M, of the interaction of the 3 scenarios vis-à-vis its levels

B. Relationship of Class with Peer Reporting Intention of the Cadets

B.1. Descriptives

In capturing their ethical decision-making when confronted with Honor Code violations, the respondents are presented with twelve (12) scenarios which consist of combined elements (emotional closeness with the violator, presence or absence of another witness to the violation, and perceived gravity of the offense). This section captures the responses that consider their Class membership. This is premised on the assumption that the longer they stay in the Academy, the firmer their grasp of the Honor Code. The higher the achieved percentage indicates that the majority of the respondents lean towards the response when there is an infraction in the scenario. The preferred answers to this survey are either D (Speak to the person and allow him/her to report before I do.) or E (I'd report the violation immediately to my squadron Honor representatives.) as it captures the proper or right thing to do given the ethical dilemma posed by each scenario.

For Scenario 1, the majority of the respondents' answers leaned toward answers D and E. This gives a total of 54.2% (57.8%, mostly second class) and 34.4% (41.9%, mostly first class) of the respondents answering D and E, respectively. This means that the majority of the respondents across the four classes know how to correctly respond when faced with instances of Honor Code violation. On the other hand, Scenario 1 would prompt 1.6% cadets (a tie of 1 second class and third class, and 2 fourth class) who will choose to do nothing at all but will contemplate whether the witness offense is an Honor Code violation.

Scenario 2 involves the hypothetical instance when the offense is perceived as low in severity, there is low emotional closeness to the violator yet there are other witnesses to the violation. From the data gathered among classes, the majority of the responses were geared toward D (52.6%, mostly first class) and E (34%, mostly first class). This means that majority of the cadet-respondents have a clear idea of what an Honor Code violation looks like and how to correctly deal with it about what they were taught by the Academy. On the other hand, there are still 3.2% of the cadets (a tie of 1 first-class and 1 second class, and a tie of 3 third class and fourth class) who will do nothing and there are 1.6% cadets (2 second class and 2 fourth class) who seem to not take the said violation as an Honor-related concern.

Scenario 3 poses a different picture of how the cadets will respond when the perceived Honor-related violation is low in severity but this time they have a high emotional closeness to the offender. The presence of another witness to the said violation adds to their dilemma of whether to report or not. The majority (37.9%, mostly first-class cadets), answered that they will “Speak to the person and allow him/her to report before I do.” On the contrary, this is followed by 20.6% (mostly the second class), who do not view said violation as Honor-related. This may be attributed to the added influence of having a high emotional closeness between the witness and the offender. Besides, there is no one else who has witnessed the offense. Unfortunately, the Honor-related violation will only be seen as a “possible Honor violation” by 10.7% of the respondents (mostly composed of the 9 fourth class, followed by a tie of 7 third class and second class, and 4 first-class).

Scenario 4 makes the cadets exercise their ethical decision-making more prudently. It comprises a situation wherein the offense is perceived as low in severity. However, the respondents have a high emotional closeness with the cadet who committed the Honor Code violation. On top of that, there is no witness to the offense. When this is the case, the majority (61.7%) of the respondents (69.4%, mostly first class) will opt to “Speak to the person and allow him/her to report” before they will do. On the other hand, 14 of the third-class cadets would outrightly report the violation, option E, followed by the 12 first-class cadets, then by the 8 fourth-class cadets, and finally by the 4 second-class cadets.

Scenario 5 paints a completely different picture because all of the cadets view the situation as an Honor-related violation; therefore, choosing A (I don’t see it as Honor-related, but I would consider taking administrative actions.) is not a viable option for this based on the results. This is probably because the scenario has been elevated to be having a perceived moderate level of severity despite the low emotional closeness of the respondents to the offender and absence of another witness/es. Choosing the right thing to do, that is options D and E, obtained a favorable decision among the majority of the respondents, with a total of 47.4% and 47%, for E and D, respectively. An interesting point to ponder is that there is no fourth class cadet who will tolerate said hypothetical Honor-related violation, given the scenario of perceived moderate level of severity of offense by low emotional closeness to violator and absence of other witnesses.

Scenario 6 becomes a little tougher because there is already another witness to the violation. For the majority of the respondents, such violation (given that they have low emotional closeness with the offender plus there is another witness to the violation) will fuel their judgment to identify that

there is, indeed, an Honor-related violation; therefore, 47.4% (majority are fourth class) will speak to the person and allow him/her to report before they will do it and 36.8% (majority are first-class) who will report the violation immediately to their squadron Honor representative. Though there are 11.5% (majority are second class) will only speak to the offender but will not do any reporting. Still, 1 first-class and 1 third class cadets comprised of the 0.8% who will do nothing but will contemplate the possibility that the violation has Honor implications.

Scenario 7 garnered a popular response of “Speak to the person and allow him/her to report before I do.” From the 43.5% of the respondents (majority are first class). On the other hand, all the first-class cadet-respondents view said scenario as an Honor-related one. However, this does not guarantee that they will report said violation because 2 first-class cadets will do nothing; ergo, tolerate. The rest of the 5.1% of the respondents does not view the given scenario as an Honor concern. These dynamic responses are stirred by the combination of perceived moderate severity of the offense, high emotional closeness to the violator, and absence of another witness.

Scenario 8 consist of the elements present in Scenario 7 but this time there are other witnesses to the Honor Code violation. The majority of the respondents chose the right options with 53.8% and 35.2% for D and E, respectively. The remaining 9.1% and 1.6% are attributed to those respondents who will do nothing but will speak to the offender, and do nothing but will think of it as a possible Honor case, respectively. Only 0.4% of the cadet-respondents (2 fourth class) think that the situation is not Honor-related.

Scenario 9 elevates the example of perceived high severity of the offense, low emotional closeness to the violator, and presence of another witness/es. For the 60.9% of the respondents (majority are second class), the most viable option is D, “Speaking to the person and allow him/her to report before I do.” On the other hand, 1.2% of the cadets (1 each for the second class to the fourth class) render the offense as not Honor-related despite it being viewed as “high severe” by the majority of the respondents. All the first-class cadet-respondents identified the situation as a definite Honor-related concern.

Scenario 10 involves the perceived high severity of the offense, low emotional closeness to the violator, and the presence of another witness to the violation. With the calibration of the example to “high severe”, all of the cadet-respondents have viewed the offense as, indeed, Honor-related. However, this does not guarantee automatic responses of either speaking to the person to report him/herself or reporting immediately the said violation to the appropriate authority. While the majority (57.7%) will do just that, there are still 5.1% who will only speak to the concerned violator but will not do anything about it and 2.4% of the cadets will tolerate the said violation.

Scenario 11 was crafted to be an example of an Honor-related violation that is perceived as high in severity by someone who has a high emotional closeness to the violator. This is colored by the dilemma of whether to report or not when no other else has seen the violation. A majority (51%) of the respondents (the majority are first-class) have chosen to report the violation immediately. There is no first-class cadet who will not speak to the violator. However, after speaking to the offender, s/he has no intention to act on it. Aside from that, there is also a first-class cadet who will tolerate such an act and another who has seen the scenario as not an Honor-related concern.

None of their underclass cadets have chosen those options in the said Scenario; thus, there might be a need for them to understand deeper the Honor Code, the appropriate way to handle its violation, and the implication of inaction.

Scenario 12 is characterized by a perceived high severity of the offense, high emotional closeness to the violator, and bystander intervention. When the cadet-respondents are faced with this situation, the majority (64%, majority are fourth class) opted to do the right thing which is to either speak to the person and allow him/her to report him/herself before s/he does. On the other hand, no first-class cadet chose this as the appropriate option for the said Scenario. On the other hand, 3 of them will tolerate the violation and will only ponder at it as a probable Honor case. A third class and a fourth class cadet have the same sentiment for this situation. They comprise 2% of the cadet-respondents. On the other hand, 1.2% (1 second class and 2 fourth class) views the situation to be out of the scope of Honor.

B.2. ANOVA Result for Class vis-à-vis Peer Reporting

Based on the result of the ANOVA Test (see Annex H), there is no significant association between the majority of the scenarios and Class membership, significant at a 5% level of confidence. It can be opined that the years of exposure of the cadets to the Honor Code throughout their four-year training in PMA has statistically no significant influence on their situational judgment when confronted with Honor Code violations.

C. Relationship of Company with Peer Reporting Intention of the Cadets

C.1. Descriptives

The highlight of this section presents the result of the ethical decision-making of the cadets when their company assignment is considered. For Scenarios 1, 2, 5 thru 12, the majority of the cadets answered D and E. However, when presented with the combination of variables as in Scenario 3, the prevalent options are D and A with 37.9% and 20.6% cadets responding, respectively. Scenario 4 poses a different dilemma where the majority of the cadets chose D (61.7%), whereas there is a tie of 15% of the respondents who chose C and E (across the 8 companies).

C.2. ANOVA Result for Company Assignment vis-à-vis Peer Reporting

Based on the result of the ANOVA test, there is no significant association between the majority of the scenarios and Company assignment, significant at a 5% level of confidence. It can be opined that the apparent distinct culture in every company has no significant influence on the intention of the cadet to report a co-cadet when there is an Honor Code infraction.

4. Summary

The Philippine Military Academy has a rigid system of enforcing the Honor Code. Policies are crafted to formalize peer reporting; otherwise, one can be dismissed on the ground of tolerating an offense. It is central to their training. However, when presented with a real Honor-case scenario, the cadet's ethical decision to report a violation is situational. This situation is characterized by the different levels of the following factors: a) perceived severity of the offense, b) emotional closeness to the offender, and c) presence/absence of another witness to the violation. The findings uncovered that, in general, the majority of the cadets lean toward responses D and E which are to talk to the person to report oneself or be the one to report to authority about the violation,

respectively. Given the situations presented to them, they are more likely to report a perceived “highly severe” offense. Meaning, minor breaches will most likely be tolerated. Moreover, when a cadet sees a close friend violate the Honor Code, personal loyalty may curb their decision to report. Turning in a cadet who is a relative stranger would be easy, in this case. Finally, unethical behaviors will be reported when there are other witnesses to the infraction. Perhaps the reporting of an offense endures the fear of ostracism when it goes against the majority’s interest. When the factors interact, the cadets are most likely to report violations with perceived high severity, low emotional closeness and there are others present during the violation. On the other hand, the class membership and company assignment of the cadets have no significant influence on their ethical decision to report a violation. These discoveries are similar to the findings of Curphy et al. (1998) and support, as well, the study made by Trevino and Victor (1992).

5. Recommendations

1. Since this study uncovered the situational factors that encourage Honor-related violations, there is a need to restructure training situations/policies to encourage peer reporting and reduce the frequency of Honor infractions. An example is arriving at standard procedures of Honor Code indoctrination designed to have a deeper and progressive understanding of the Honor Code. This can start with a pre-test of the newly incorporated cadet’s understanding of the Honor Code and the standards of the Academy and then a post-assessment examination at every Honor Code program to gauge their level of knowledge and appreciation of the said Code.
2. Future studies that will replicate this may consider changing the order of scenarios to prevent pre-emption of answers based on the progressive levels of each variable.
3. A separate study (a sequential explanatory approach) can be pursued to discuss more detailed patterns by uncovering the meaning of the participant’s responses as it explains the why’s of the quantitative results.
4. The dynamics of group norms/groupthink in the Academy may be explored vis-à-vis the informal rules/standards that the cadets adopt to handle infractions/misconducts internally.

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Do Engineering Majors Affect Perceived Social Media Addiction?

Fatima Zehra Allahverdi^{1*}

¹ Department of Psychology, Social Sciences University of Ankara, Ankara, Turkey

*Corresponding Author: zehra.allahverdi@asbu.edu.tr

Abstract: *The current research asked whether perceived social media addiction was a function gender (Male, Female), age (Freshman, Sophomore, Junior, Senior), and majors among Engineering students. The participants were from a public university in the Middle East. Students quantified their perceived social media addiction on a scale from zero to one hundred. A stepwise regression analysis was conducted. Results indicated that there is no significant difference among seven different Engineering majors. However, significant differences were observed between genders and age. Female students believed they were addicted about 10% more than males. Freshman and Sophomore students believed they were addicted about 10% more than Juniors and Seniors.*

Keywords: Perceived Social Media Addiction, Engineering Majors, Age, Gender

1. Literature Review

The internet has become “an integral thread in the fabric of the world” (Grau, Kleiser, & Bright, 2019). Alongside the increased use of the internet, utilization of different communication methods such as Facebook, Twitter, and Instagram have also increased (Okdie & Ewoldsen, 2018). Among university students 65% of students spend more than three hours online, and nearly seven percent of the students spend more than 40 hours on the internet per week (Cotten, 2008).

Addiction can begin with “seemingly benign behaviors that through psychological, biophysical and/or environmental triggers become harmful and morph into an addiction” (Grover et al., 2011, p.1). An addiction based on consumption is composed of four stages: non-use, non-addictive use, near-addiction, and addiction. The phases are represented by time spent and frequency of engagement, self-control, and the level of negative consequences (Grau et al., 2019; Martin et al., 2013). Negative consequences may either be economic, physical, psychological, or social. For instance, social media addiction can cause burnout which negatively relates to job performance or in other words has a negative economic consequence (Zivnuska, Carlson, Carlson, Harris, & Harris, 2019). The current study looked at self-perceived addiction of individuals. It is important to look at addiction because the symptoms of internet addiction are similar to that of people with depression, low self-esteem, disinhibition, and anxiety and hostility (Widyanto & Griffiths, 2006).

The need to interact is one of the main reasons people use social media (Palfrey & Gasser, 2008). Although previous research focuses on internet addiction, recent research has begun to focus on social media addiction (Grau et al., 2019). Social media addiction has become a major concern within the current technological world (Kircaburun, 2016). Other research has found that 76

percent of the users of the internet visit Facebook daily; in fact, 55 percent of the visiting individuals visit Facebook several times a day (Greenwood et al., 2016).

Research has also found that females are more prone to social media addiction (Kuss & Griffiths, 2017; Karadag et al., 2015). However, other researchers such as Erfanmanesh and Hosseini (2015) refer to how men are more susceptible to social media addiction compared to women. Therefore, the current study also included gender as a variable in predicting perceived social media addiction.

2. Purpose and Methodology

The purpose of the study was to determine the predictability of phubbing frequency, gender, age, and the majors of Engineering on the perceived social media addiction of students from a public university in the Gulf. Gender was included in the study, due to varied results by researchers (Erfanmanesh & Hosseini, 2015; Kuss & Griffiths, 2017).

How is the percentage of self-perceived social media addiction a function of the following factors: gender differences, age, and majors among Engineering Students?

The current study utilized a multiple regression analysis approach. Linear relationships and strength of relationships can be identified using scatterplots and correlations. However, regression quantitatively identifies how variables are related. “There are two potential objectives of regression analysis: to understand how the world operates and to make predictions” (Albright & Winston, 2010, p.531). Therefore, it provides the researcher with a formula of the relationship, allowing prediction of future cases.

The study included university students from the College of Engineering of a public university in a Gulf country with English as medium of instruction. The total number of students surveyed were 204. The Engineering majors included in the study were as follows: Mechanical Engineering, Chemical Engineering, Petroleum Engineering, Industrial Engineering, Electrical Engineering, Computer Engineering, and Civil Engineering. Table 1 provides a breakdown of the percent of participating students by major.

Table 1: Percent of participating students by major

Engineering Major	% of survey students
Chemical Engineering	9.1%
Computer Engineering	12.4%
Electrical Engineering	11.3%
Industrial Engineering	28.3%
Mechanical Engineering	21.5%
Civil Engineering	12.3%

There were more females (2/3) compared to males (1/3) in the study. This was due to the fact that the vast majority of the Engineering students were females. The survey was given to students from all years. Table 2 provides a breakdown of the percent of participating students by year.

Freshman year corresponds to about the age 18-19, Sophomore year corresponds to about the age 20-21, Junior year corresponds to about the age 22-23, and Senior year corresponds to about the years 24-26. Therefore, it is drastically different from other countries, including the United States.

Table 2: Percent of participating students by Year

Year	% of survey students
Freshman	17.6%
Sophomore	21.5%
Junior	20.5%
Senior	40.4%

3. Measure and Findings

Participants had to circle either male or female for gender. Due to the culture of the country surveyed, individuals officially referred to themselves as the sex they were born with. For major, participants had to write down their Engineering major. For year, participants had to circle whether they were Freshman, Sophomore, Junior, or Senior. Perceived social media addiction was assessed with the following question, “To what extent do you feel addicted to social media?”, using a numerical scale from zero to 100.

Before analyzing gender and year, Engineering majors were separately considered utilizing a multiple regression to determine if perceived social media addiction was a function of major. However, it was found that Engineering majors were not significant in the model.

A stepwise multiple regression was conducted to determine which independent variables (gender and year) were predictors of perceived social media addiction. The assumptions of normality, linearity, and homoscedasticity were all met. Moreover, no outliers were found and multicollinearity was not an issue. For a reliable regression equation, the ratio of recommended subjects for the independent variables is fifteen to one.

The average addiction perception of social media was ($\bar{x} = 66.13$) with a standard deviation of ($sdv=24$). Of the 204 students, 100 of them perceived themselves as addicted to social media between 75%-100%. Of the 204 students, 37 of them perceived themselves as addicted to social media 100%.

A stepwise multiple regression analysis was utilized in the study. Table 3 provides the model summary for the regression analysis. Table 4 provides the coefficients for the final model. Due to listwise removal of missing data in SPSS, the number of participants for the regression model was reduced to 187. As seen in Table 4, regression results indicate that the overall model predicts perceived social media addiction, $R^2 = 0.21$, $R^2_{adj} = 0.17$, $F(1, 180)$, $p < .01$, with the independent variables accounting for 21% of the variance in the dependent variable. Table 5 indicate the coefficients of the model.

Table 4: Model Summary

Steps	<i>R</i>	<i>R</i> ²	<i>R</i> ² <i>adj</i>	<i>R</i> ² Change	<i>F</i> Change	<i>p</i>	<i>df</i> 1	<i>df</i> 2
Year, Gender	0.46	0.21	0.17	0.03	6.1	<.01	1	180

Table 5

Model	Beta	<i>T</i>	Model
Year (Se)	-12.71	-0.26	-2.74***
Year (J)	-18.37	-0.31	-3.51****
Year (So)	-6.19	-0.11	-1.19
Gender (M)	-8.23	-0.17	-2.47**

* 01 **0.05 ***0.01

The data was then used to create a multiple regression formula:

Addiction Perception = 61.4

- 8.03 Gender (Male)
- 2.52 Year (Sophomore)
- 13.79 Year (Junior)
- 9.40 Year (Senior)

It should be noted that for the base of the regression formula, the gender is female, and the year is Freshman. Therefore, students in this category had an average of 61.4% perceived social media addiction. If for instance, the gender was male, the year was Freshman, the perceived social media addiction would be 53.37.

In order to validate the formula, the data was split into two. A little more than two-thirds of the data was used to run a regression model and the remaining was used to cross-validate the regression equation.

4. Conclusion

The current research asked whether perceived social media addiction was a function of gender differences, age, and majors among Engineering students. Engineering majors were not found to be significant. Therefore, it was removed from the analysis.

Among the surveyed students, 100 of them perceived themselves as addicted to social media between 75%-100% and 37 of them perceived themselves as addicted to social media 100%.

A stepwise regression analysis was conducted to determine the amount of variance the independent variables explained in the dependent variable, perceived social media addiction. Significant differences were observed between genders and age. Female students believed they were addicted about 10% more than males. Freshman and Sophomore students believed they were addicted about 10% more than Juniors and Seniors.

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Educational Tours as a Learning Tool to the Third Year Tourism Students of De La Salle University-Dasmarinas

Jackqueline E. Uy^{1*}, Hannah Miriam Verano¹, Chrysler Luis B. Verbo¹

¹ De La Salle University-Dasmarinas, Cavite, Philippines

*Corresponding Author: jackquelineuysud@gmail.com

Abstract: *Educational tours are part of the curriculum of the College of Tourism and Hospitality Management, De La Salle University-Dasmarinas. They are highly significant to the students especially Tourism students. The purpose of this study was to determine how effective educational tours were as a learning tool using the Experiential Learning Theory by David Kolb. This study determined the demographic profile of the third year tourism students in terms of gender, section, educational tours joined and monthly family income and lastly, this study determined if there is a significant difference between the demographic profile of the respondents and their assessment of educational tours as a learning tool. The researchers used historical research design with the third year students of the Bachelor of Science in Tourism Management as the population size and used random sampling method. The researchers made a survey questionnaire and utilized statistical tools such as weighted mean, frequency distribution, percentage, standard deviation, T-test and ANOVA. The result of the study answered the profile of the respondents such as the gender, section, educational tour/s joined and family monthly income. The findings of the study showed that the 3rd year Tourism management students strongly agree that educational tours are a highly effective learning tool in terms of Active Experimentation, Concrete Experience, Reflective Observation and Abstract Conceptualisation based on the data gathered from the respondents.*

Keywords: Educational Tours, Experiential Learning Theory, De La Salle University Dasmarinas, CTHM, Tourism, Higher Education

1. Introduction

Educational tours are a learning experience. They are vital for tourism students because through this, they acquired authentic experience and gained valuable knowledge that they can utilize in their future endeavors. The skills that they observed from the people and tourism professionals they encountered during these tours helped them as they reflected upon their learnings. The purpose of these tours was to broaden the skills and abilities of tourism students for their future work in the industry.

Educational tour allowed student to witness a new environment while learning in their own pace, this kind of learning tool didn't involve textual or abstract presentation instead it stimulated the mind and engaged the students (Kamat, 2018). Martin (2019) mentioned the advantages of having an educational tour which were communicating with locals in which students would learn the culture, of the destinations from the perspective of the locals, talking with people would help the student be more aware of the local customs, beliefs, and values. Students are expose to different

culture when going to educational tours which offers opportunities and experiences that student can reflect upon to apply what they have learned in real-life situations. If students experience educational tour, it can broaden their understanding of themselves and of the world, being more aware of oneself and realize what their passion is about. When students are exposed to different places for the first time that can be aware of issues like environmental, socioeconomic, and political that can lead to an intellectual discussion between the students themselves and have a conclusion on their own. According to the Commission of Higher Education Memorandum Order No. 63 Series of 2017 Article V (2017), Educational Tour refers to off-campus learning activities involving mobility of student with the supervision of authorized personnel outside the premises of the institution which lasts for more than one (1) day and involves relatively more places of destination than a field trip in accordance with specific degree program requirements.

International educational tours allow student to be able to improve their current skills, be expose to other heritage, culture, language, destinations, and foreign people, develop confidence and self-esteem, gain experience, and have opportunities in their career path, be adaptable to changes and when returning home what they had learned or experienced can be used for their future and in the society (Kamat, 2018). Stuart (n.d.) believed that international educational tour has a positive impact to the learning experience, tacit knowledge and problem-solving skills of the students. The advantages of participating in educational tours that are international are improved critical thinking skills, experiential learning happens, expansion of worldview, reinforce of classroom material, stronger teacher-student relationships, build confidence, increased motivation in the classroom, all students benefits and lifelong memories. Analyzing information, systematically solve problems, innovative solutions, plan strategically while thinking creatively are examples of critical thinking which most employers prioritize in the tourism industry, student who participated in real-life experiences while on international educational tour have the chance to hone their critical thinking skills, learning concept are applied to real-life circumstances, students are more able to recall what they have learn in classroom which is when experiential learning happens in educational tours, students are encourage to explore different culture when going to destinations in educational tours which affects the personal beliefs, values and attitudes of a student on how they perceive, think, feel and do things, by having students apply what they have learned in classroom to actual experience, they will understand the value and deepening the knowledge about the learning concepts, teachers and students would have to interact during educational tours which would encourage more intellectual interaction between them, travelling abroad without family member or guardian will help to boost the confidence of a student by stepping out in their comfort zone and challenge themselves to what they are capable of, the use of seminars, workshops or seeing the possible professions in the future can help to increase the motivation to learn of a student, all students will benefit when attending educational tours internationally due to the certain objectives of the tour that will be educational, while the memories and experiences that would be achieved during the international educational tours can be an opportunities for the students in their career path.

The school offers both international and domestic educational tours but this study had focus on the international tours namely Taiwan, and South Korea. The researchers want to determine the effectiveness of educational tours as a learning tool to the third-year tourism students of De La Salle University Dasmarinas, Cavite. In order to do so, Experiential Learning Theory was being

applied to this study. Many studies have been done about educational tours. However, there has not been a study done on the effectiveness of educational tours as a learning tool, specifically on the third-year students of the College of Tourism and Hospitality Management, De La Salle University-Dasmaringas.

This study mainly focuses on determining the effectiveness of educational tours as a learning tool to the 3rd year tourism students of De La Salle University Dasmaringas, Cavite. This research aims to achieve the following objectives:

1. To determine the demographic profile of the 3rd year tourism students in terms of:
 - Gender,
 - Section,
 - Educational tours joined
 - Monthly family income
2. To determine the effectiveness of educational tours as a learning tool in terms of:
 - Active Experimentation
 - Concrete Experience
 - Reflective Observation
 - Abstract Conceptualisation
3. To determine if there is a significant difference between the demographic profile of the respondents and their assessment of the effectiveness of educational tours as a learning tool.

This study focuses on the effectiveness of educational tours as a learning tool to the third year tourism students of De La Salle University Dasmaringas. This study limits its coverage on the third year Tourism students only and only the international tours such Taiwan and South Korea will be covered. The data collection will be conducted to 105 randomly selected third year tourism students of the present school year 2021-2022 who will represent the population. This study considers the demographic profile of the students such as gender, section, educational tours joined and family income and if that has a significant difference with their assessment of educational tours. Each of the respondents were given the same questionnaire to answer.

The findings of this study would be helpful to the students because they will know the effectiveness of educational tours as a learning tool and they will learn to appreciate College of Tourism and Hospitality Management more. Hopefully, the findings in this study will help professors in improving future tour journal outputs of the tourism students. This study would be beneficial to future researchers because they can get some information that they might need in their research related to this topic.

2. Literature Review

David Kolb in the year 1984. Barton (2020) states that "learning involves the acquisition of abstract concepts that can be applied flexibly in a range of situations. In Kolb's Experiential Learning Theory, the impetus for the development of new concepts is provided by a new experience. He, therefore, states that learning is the process whereby knowledge is created through the transformation of experience." There are four stages in Kolb's experiential learning theory, namely: concrete experience, reflective observation, abstract conceptualization and active experimentation.

The student learns effectively if they progress through the cycle completely, but the cycle can also be entered at any stage (McLeod, 2017 & Mcpheat, 2017) .

During the concrete experience stage, the student is actively engaged or involved in an activity or task. During the reflective observation stage, the student is reflecting upon the task. This is when the learner is asking questions and discussing the experience with his or her companions. Next is the abstract conceptualization stage. During this stage, "The learner attempts to draw conclusions of the experience by reflecting on their prior knowledge, using ideas with which they are familiar or discussing possible theories with peers" (Kurt, 2020). The students begin classifying concepts and start comparisons with their understanding of the activity or task. The last stage is the active experimentation stage and in this stage the learner starts to apply what they have learned from the activity or task. According to Kurt (2020) "learners return to participating in a task, this time with the goal of applying their conclusions to new experiences."

Suarez et al. (2017) did a study about the effectiveness of educational tours but the difference is that the respondents were 4th year students in College of Tourism and Hospitality Management in Lyceum of the Philippines, Batangas City. Several literatures have claimed that experiential learning is a highly effective teaching and learning tool. Mechanical engineering students were able to go through the four stages of Kolb's experiential learning theory during their mechanical design course and because of that they were able to deeply process their experience and acquire knowledge (Li, et al., 2019). Widyastuti et al. (2019) conducted a survey research in Jawa Tengah, Indonesia where they were interested in implementing experiential learning. They found out that the students "were very enthusiastic and motivated" with the experiential learning activities they did. Ahad (2017) did a study in Ethiopia about applying Kolb's theory in teaching architecture. He concluded that the students learned better when they were able to apply what they learned. Mc Pherson-Geyser, Villiers & Kawai (2020) claim that implementing experiential learning in schools give many advantages to learning especially in teaching Life Sciences. This learning theory also enhances and skills and attitudes of students effectively (Idris, Din & Tajuddin, 2020). The findings in a study done by Gorghiu and Santi (2016) suggested that this theory highly stimulates the minds of the students to learn something. In the study by Giac, Gai, & Hoi (2017), experiential learning activities were organized to teach science for general education in Vietnam. The results of the study indicate that hands-on learning activities will definitely teach students applicable knowledge, skills and reinforce positive learning.

This study is anchored upon the experiential learning theory. The researchers believe that utilizing this learning theory will aid them greatly in determining the effectiveness of educational tours as a learning tool to the 3rd year tourism students of De La Salle University Dasmaringas, Cavite.

This quantitative research had used historical research design. This kind of research design complimented our research paper that used the previous experienced of the respondents that joined the educational tours. The objective of the study was to see the effectiveness of the educational tours as a learning tool to the third year tourism students of the De La Salle University-Dasmaringas that requires an attendance from the respondents in the previous international educational tours.

The participants of the study were the third-year tourism students of the De La Salle University-Dasmariñas. The sampling frame of the researchers were the list of all the third-year students of the said college. The sampling method used was probability sampling method, specifically the simple random sampling. The researchers followed the recommendation of the statistician with the sample size of 105. The population size of this study was 115.

The research instrument used in the study was a survey questionnaire made by the researchers that had been validated by the statistician. The first part of the survey questionnaire contained the demographic profile of the respondents, which included gender, section, educational tours joined and monthly family income. The second part of the questionnaire contained the questions about determining the effectiveness of educational tours as a learning tool in terms of Active Experimentation, Concrete Experience, Reflective Observation and Abstract Conceptualisation. The second part used 4-point Likert Scale where 4 means strongly agree and 1 means strongly disagree.

This data gathering process was conducted online because the students and the researchers could not come to school because of the pandemic. The researchers used Google Forms and they were the ones who distributed it to the respondents one by one at the same time requested the class president of each section to send the survey questionnaires to the group chat. They shared the link of the said Google Forms to the respondents during the month of March when the data gathering was taking place and during weekdays via Facebook messenger. After collecting the data the researchers compiled and transferred it to Microsoft excel spreadsheet and then sent it to the statistician for statistical analysis. The researchers presented the receipt for the Statistician's Fee and then the statistician gave them the statistical treatment of the data.

Frequency and percentage were used to determine the demographic profile of the 3rd year tourism students in terms of gender, educational tours joined and family income. Mean and standard deviation were used to determine the effectiveness of educational tours as a learning tool. The standard weighted mean had a meaning for the corresponding points 3.50-4.00 Strongly Agree or Highly Effective, 2.50-3.49 Agree or Effective, 1.50-2.49 Disagree or Somewhat effective, and 1.00-1.49 Strongly disagree Not effective. T-test and Analysis of Variance or ANOVA were used to determine if there is a significant difference between the demographic profile of the respondents and their assessment of the effectiveness of educational tours as a learning tool. The result from the survey questionnaires were analysed by the statistician.

The ethical considerations that the researchers used focused on 4 qualifications of the participants in this study: (1) must not be below 18 years old; (2) must not be a person with disabilities (PWD); (3) must not be indigenous person and (4) must be a bonafide third year student at College of Tourism and Hospitality Management, De La Salle University Dasmariñas. The stated ethical considerations were then observed by the researchers before sharing the survey questionnaires.

3. Discussion and Conclusion

Table 1: Distribution of the Respondents Based on Their Gender

Gender	Frequency	Percentage
Female	53	50.48
Male	52	49.52
Total	105	100

The demographic profile of the respondents in Table 1 shows the gender of the respondents. The table showed that most of the respondents were female, corresponding to 50.48%. While the male respondents correspond to 49.52%. Female frequency and percentage are much higher than males but not that far apart. While its contribution to economic and social development is widely acknowledged in the literature, over the years little attention has been paid to how the tourism industry benefits women and men, as well as to the relation between tourism and gender equality (EIGE 2017).

The demographic profile of the respondents in Table 2 shows the section of the respondents. The table showed that most of the respondents were from BTM3-2 which corresponds to 27.62%, followed by BTM3-1 which corresponds to 25.71%, then BTM3-4 which corresponds to 23.81% and lastly, from BTM3-3 which corresponds to 22.86%. The numbers of respondents from different sections were not too far from each other, meaning that all the four sections participated well in the survey.

Table 2: Distribution of the Respondents based on their Section

Section	Frequency	Percentage
BTM3-1	27	25.71
BTM3-2	29	27.62
BTM3-3	24	22.86
BTM3-4	25	23.81
Total	105	100

The demographic profile of the respondents in Table 3 shows the educational tours joined by the respondents. The table showed that 84 students joined the Taiwan tour, and 89 students joined the South Korea tour. Through their experiences in a different culture, students will learn to see their homeland in a new way. Once they learn to think about the issues affecting another country in a holistic way, they can begin to do the same with their own country, state and city. This can be one of the most beneficial aspects of an educational tour (The Advantages of an Educational Tour, 2019)

Table 3: Distribution of Respondents based on their Educational Tours Joined

Educational Tours	Frequency	Percentage
Taiwan	84	48.55
South Korea	89	51.45
Total	173	100

The demographic profile of the respondents in Table 4 shows the family's monthly income of the respondents. The table showed that most of the respondent's family income is 20,001 and above, which corresponds to 85.71%, followed by between 15,001 and 20,000 which corresponds to 6.67%, then between 10,001 to 15,000 which corresponds to 5.71%. On the other hand, family monthly incomes between 5,000 to 10,000 was the least percentage, which corresponds to 1.90%. Meaning that most of the respondents join educational tours because they have sufficient funds for the tour. According to PSA (2018), the national average of family income is P313.348 per year or P26,112 per month.

Table 4: Distribution of the Respondents based on their Family's Monthly Income

Family Monthly Income	Freq	Percentage
P5000 - P10000	2	1.90
P10001 - P15000	6	5.71
P15001 - P20000	7	6.67
P20001 and above	90	85.71
Total	105	100

The second part of this study examines the assessment of the respondents of educational tours as a learning tool to the Experiential Learning Theory. It is composed of 4 parts namely; Active Experimentation, Concrete Experience, Reflective Observation and Abstract Conceptualisation.

Table 5: Respondents Assessment of Educational Tours as Learning Tool in Terms of Active Experimentation

Active Experimentation	Mean	Std.Dev	Interpretation	Rank
1. I was able to use the skills or abilities I have acquired from the educational tour/s.	3.57	0.59	Strongly agree	6.5
2. I was able to apply the obtained experience from the educational tour/s.	3.57	0.53	Strongly agree	6.5
3. I was able to determine the effectiveness of educational tour/s on my course.	3.61	0.55	Strongly agree	4
4. I was able to plan my future endeavors based on what I have learned from educational tour/s.	3.56	0.55	Strongly agree	8
5. I have plan for my free time of during the educational tour.	3.60	0.53	Strongly agree	5
6. I have practiced what I have learned in the educational tour/s on the classroom.	3.42	0.60	Agree	9.5
7. I was able to apply what I learned in the educational tour/s on daily activities.	3.42	0.57	Agree	9.5
8. I think the educational tour/s was/were helpful for my future career in the Tourism Industry.	3.65	0.50	Strongly agree	2
9. I have learned something related to my future profession from the educational tour/s.	3.62	0.54	Strongly agree	3
10. I was able to answer the tour journal based on the educational tour/s.	3.70	0.48	Strongly agree	1
Overall Mean	3.57		Highly Effective	

3.50-4.00 Strongly Agree / Highly Effective, 2.50-3.49 Agree / Effective, 1.50-2.49 Disagree / Somewhat effective, 1.00-1.49 Strongly disagree / Not effective

Table 5 shows the Respondents Assessment of Educational Tours as Learning Tool in Terms of Active Experimentation. In terms of Active Experimentation, the highest mean obtained is the item number 10 which is “I was able to answer the tour journal based on the educational tour/s.” This number obtained the highest mean 3.70 with a standard deviation of 0.48. This means that the students place a high value on the tour journals given after the educational tours. The students are given tasks and activities that they must accomplish during the educational tours and this exercises their active experimentation learning style. Some activities include creating a tour guiding video at Petite France (South Korea Tour), creating a review of anything Western during the tour, creating a food review during the Taiwan tour and lastly answering the tour journals. The tasks and activities really immerse the students to the tour and strengthen the Active Experimentation learning style they undergo. The tour journals test the knowledge and experience of the respondents and it also makes them reflect upon the tour they experienced. The tour journals and activities done further reinforce the active experimentation learning style thus making it a highly effective learning tool.

However, the least mean obtained are both item number 6 and 7. Item number 6 is "I have practiced what I have learned in the educational tour/s on the classroom" and 7 is "I was able to apply what I learned in the educational tour/s on daily activities." The respondents interpret both numbers only as Agree. This means that the students do not practice or apply what they have learned in the classroom and this could be because the classroom is a confined space for learning already. Their acquired knowledge from the educational tours could be applied outside the classroom, an example of this is in their workplace once they apply for a job. Not everything the students learn from the job could be applied in their daily activities because their daily life is not all related to tourism.

Table 6: Respondents Assessment of Educational Tours as Learning Tool in Terms of Concrete Experience

Concrete Experience	Mean	Std.Dev	Interpretation	Rank
1. I have observed how the protocols have been followed during the educational tour/s such as checking in hotel etc.	3.59	0.55	Strongly agree	9
2. I have experienced interacting with locals during the educational tour/s.	3.60	0.58	strongly agree	8
3.I have interacted with student/s outside my section during the educational tour/s.	3.49	0.77	agree	10
4. I have seen jobs related to Tourism industry during the educational tour/s like tour guiding, hotel receptionist etc.	3.67	0.53	strongly agree	6.5
5. I have learned something during the educational tour/s.	3.67	0.53	strongly agree	6.5
6.I have observed the culture of the destinations during educational tour/s.	3.69	0.47	strongly agree	3
7.I visited a historical place during the educational tour/s.	3.68	0.49	strongly agree	4
8. I experienced the different transportation systems during the educational tour/s.	3.63	0.50	strongly agree	5
9. I have experienced the difference of learning between classroom and in educational tour/s.	3.70	0.46	strongly agree	2
10.I had fun during the educational tour/s.	3.77	0.47	strongly agree	1

Overall mean	3.65	highly effective
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3.50-4.00 Strongly Agree / Highly Effective, 2.50-3.49 Agree / Effective, 1.50-2.49 Disagree / Somewhat effective, 1.00-1.49 Strongly disagree / Not effective

Table 6 shows the Respondents Assessment of Educational Tours as Learning Tool in Terms of Concrete Experience. In terms of Concrete Experience, the highest mean obtained is 3.77 which is item number 10 and it is "I had fun during the educational tour/s." This means that the respondents truly enjoyed the educational tours and they strongly agree with the statement. The students may find the free day enjoyable because they are free to roam around the area and explore places outside the itinerary that they truly want to see. Or they may enjoy simple sight- seeing the tour destinations and listening to the tour guide all the while immersing themselves in the tour. Educational tours are truly a fun experience and the students enjoying this reinforces the Concrete Experience learning style from David Kolb. The more fun the students during the tour, the more they retain the knowledge they gain thus making it a highly effective learning tool.

However, the item number with the least mean is 3 because it has a mean of 3.49 and a standard deviation of 0.77 which can be interpreted as Agree. Item number 3 is "I have interacted with student/s outside my section during the educational tour/s." This means that the students did not have much interaction with their batchmates outside their section during the tours. One possible reason is the time constraint because educational tours follow a strict schedule and this may cause them to be in a hurry and follow their section.

Table 7: Respondents Assessment of Educational Tours as Learning Tool in Terms of Reflective Observation

Reflective Observation	Mean	Std.Dev	Interpretation	Rank
1. I was able to understand the purpose and objectives of the educational tour/s.	3.65	0.50	strongly agree	2
2. I was able to experience their local foods.	3.68	0.51	strongly agree	1
3. I was able to develop a deeper appreciation on the culture of the country.	3.62	0.49	strongly agree	3
4. I was able to evaluate the tourism resources of the destination.	3.49	0.64	agree	8
5. I was able to report sustainable tourism practices in the tourism industry.	3.46	0.67	agree	9
6. I was able to assess the different profession in the Tourism Industry.	3.55	0.55	strongly agree	7
7. I was able to have a reflection about what I experienced during the educational tour/s.	3.58	0.57	strongly agree	5
8. I was able to discover a problem from a visited destination in the educational tour/s.	3.44	0.62	agree	10
9. I was able to reflect what are the skills and attitude of those in the Tourism Industry during the educations tour/s	3.57	0.53	strongly agree	6
10.I was able to observe the guidelines, and rules that had happen during the educational tour/s.	3.61	0.51	strongly agree	4
Overall mean	3.56		highly effective	

3.50-4.00 Strongly Agree / Highly Effective, 2.50-3.49 Agree / Effective, 1.50-2.49 Disagree / Somewhat effective, 1.00-1.49 Strongly disagree / Not effective

Table 7 shows the Respondents Assessment of Educational Tours as Learning Tool in Terms of Reflective Observation. In terms of Reflective Observation, the item number with the highest mean is item number 2 which is "I was able to experience their local foods." It has a mean of 3.68 and a standard deviation of 0.51 which can be interpreted as Strongly Agree. This means that out of 10 questions in term of reflective observation this item was the most part students had reflected and discussed during the educational tours. One of the requirements in the Major courses was to make a food review from international educational tours. It affected the students and became one of the many things they had remembered until now. Since food is an essential to human needs, the respondents might have prioritized eating the local cuisine compared to other activities like discovering a problem from the visited destinations and then when it was time to make a reflection and discussion with other tourism students the experiences were mostly talked about like the novelty of the food compared to observing the consequences of tourism to the destinations, people and the country itself. The reflection of the student that discussed the experiences of eating local foods is an example of Reflective Observation which then made the educational tour more informative and highly effective learning tool.

However, the item number with the lowest mean is 8 which is "I was able to discover a problem from a visited destination in the educational tour/s." It has a mean of 3.44 and a standard deviation of 0.62 which can be interpreted as Agree. Since visiting destinations excites a person which to makes it more memorable, they would then take pictures or videos as souvenirs. Since the students are busy taking souvenirs and appreciating the destinations, problems such as it being over crowded or litter in the destination might not have been observed and so, when reflecting the activities, they had done with their batchmates along the tour they might have overlooked the negative side and instead discussed what kind of activities the students had done and the souvenirs they took.

Table 8: Respondents Assessment of Educational Tours as Learning Tool in Terms of Abstract Conceptualisation

Abstract Conceptualization	Mean	Std.Dev	Interpretation	Rank
1. I realized how diverse their culture was.	3.64	0.57	strongly agree	4
2. I was able to compare the different types of attractions.	3.56	0.59	strongly agree	8.5
3. I was able to analyze their transportation system.	3.60	0.53	strongly agree	5
4. I was able to differentiate their religion.	3.66	0.53	strongly agree	3
5. I have assessed the theory/concept that I've learned from the classroom in the educational tour/s.	3.51	0.56	strongly agree	10
6. I was able to develop my attitude or skill because of the educational tour/s.	3.56	0.57	strongly agree	8.5
7. I was further motivated to learn because of the educational tour/s.	3.68	0.47	strongly agree	1.5
8. I was able to connect the educational tour/s with the tour journal.	3.57	0.52	strongly agree	7

9. I was able to use educational tour/s as a learning tool.	3.68	0.47	strongly agree	1.5
10. I was able to relate the educational tour/s with the problems of the society.	3.59	0.57	strongly agree	6
Overall mean	3.60		highly effective	

3.50-4.00 Strongly Agree / Highly Effective, 2.50-3.49 Agree / Effective, 1.50-2.49 Disagree / Somewhat effective, 1.00-1.49 Strongly disagree / Not effective

The table 8 shows the Respondents Assessment of Educational Tours as Learning Tool in Terms of Abstract Conceptualisation. In terms of Abstract Conceptualization, two item numbers have the same highest mean, and they are item number 7 and 9. Item number 7 is "I was further motivated to learn because of the educational tour/s" and item number 9 is "I was able to use educational tour/s as a learning tool." Both item numbers have a mean of 3.68 and a standard deviation 0.47 which can be interpreted as Strongly Agree. This means that the educational tours were used as a learning tool to help the respondents be more motivated in the tourism management course while it is confirmed that educational tour is an effective learning tool by the third-year tourism management students. By having an understanding on the reflection based on the experienced they had, the respondents concluded that educational tours are an effective learning tool because of the visited attractions, interactions with the people that are in the tourism industry, with different culture, discussion with fellow students, and doing the requirements from Major Courses during tour. This further motivated the students to learn as they see how tourism professions act, behaved, what are the skills and abilities that respondents must improved for the future careers.

However, the item number with the least mean is 5 which is "I have assessed the theory/concept that I've learned from the classroom in the educational tour/s" and it has a mean of 3.51 with a standard deviation of 0.56 which can be interpreted as Strongly Agree. This means that the respondents were least able to think about the theory/concept that they have learned from the classroom during the educational tours when visiting the tourism attractions, eating the local cuisine, riding the different transportations, seeing the diverse culture. The classroom is where the students learned the theories or concept from the textbooks, discussions and other sources while the educational tours is where the students learn from the experience they will have.

Table 9: Significant Difference Between Gender and the Respondents Assessment of Educational Tours with the Experiential Learning Theory (T-test)

	Gender	Mean	Std. Deviation	t-comp	P-value	Decision	Interpretation
Active Experimentation	MALE	3.5712	.41837	-	0.976	Failed to reject Ho	There is no significant difference
	FEMALE	3.5736	.41004				
Concrete Experience	MALE	3.6346	.34860	-	0.731	Failed to reject Ho	There is no significant difference
	FEMALE	3.6604	.41433				
Reflective Observation	MALE	3.5885	.38687	0.602	0.549	Failed to reject Ho	There is no significant difference
	FEMALE	3.5396	.44217				
Abstract	MALE	3.6250	.37200	0.495	0.621		There is no

Conceptualization	FEMALE	3.5849	.45251			Failed to reject Ho	significant difference
Overall	MALE	3.6048	.34733	0.212	0.833	Failed to reject Ho	There is no significant difference
	FEMALE	3.5896	.38632				

Table 9 shows the result on the significant difference between gender and the respondents' assessment of educational tours with the experiential learning theory using T-test. The result shows that gender is not a factor when it comes to the respondents assessment of educational tours as a learning tool because all the of p-value was more than the significance level of 0.05.

The results reflect that there is no significant difference with the gender of the respondents and their assessment of educational tours as a learning tool because gender is not a factor to consider when assessing the effectiveness of educational tours. According to a NEA Member Benefits (n.d.), students learn much from the educational tours regardless of their gender.

Table 10: Significant Difference Between Section and the Respondents Assessment of Educational Tours with the Experiential Learning Theory (ANOVA)

		Mean	Std. Deviation	F-comp	P-value	Decision	Interpretation
Active Experimentation	BTM 3-1	3.5852	.39292	1.036	0.380	Failed to Reject Ho	There is no significant difference
	BTM 3-2	3.4759	.40940				
	BTM 3-3	3.6750	.36742				
	BTM 3-4	3.5720	.47127				
	Total	3.5724	.41219				
Concrete Experience	BTM 3-1	3.6074	.38323	0.832	0.479	Failed to Reject Ho	There is no significant difference
	BTM 3-2	3.5931	.38072				
	BTM 3-3	3.7458	.34513				
	BTM 3-4	3.6600	.41633				
	Total	3.6476	.38157				
Reflective Observation	BTM 3-1	3.5519	.35450	1.325	0.270	Failed to Reject Ho	There is no significant difference
	BTM 3-2	3.4862	.43566				
	BTM 3-3	3.7042	.35075				
	BTM 3-4	3.5320	.49051				
	Total	3.5638	.41443				
Abstract Conceptualization	BTM 3-1	3.6222	.31663	1.889	0.136	Failed to Reject Ho	There is no significant difference
	BTM 3-2	3.5207	.45699				
	BTM 3-3	3.7625	.33856				
	BTM 3-4	3.5320	.48795				
	Total	3.6048	.41310				
Overall	BTM 3-1	3.5917	.28815	1.424	0.240	Failed to Reject Ho	There is no significant difference
	BTM 3-2	3.5190	.38363				
	BTM 3-3	3.7219	.33267				
	BTM 3-4	3.5740	.43442				
	Total	3.5971	.36584				

Table 10 shows the result on the significant difference between section and the respondents' assessment of educational tours with the experiential learning theory using ANOVA. The result shows that section is not a factor when it comes to the respondents assessment of educational tours as a learning tool because all the of p-value was more than the significance level of 0.05.

The results reflect that there is no significant difference with the section of the respondents and their assessment of educational tours as a learning tool because section is not a factor to consider when assessing the effectiveness of educational tours. The respondents consider educational tours as a highly effective learning tool, regardless of their section.

Table 11: Significant Difference Between Monthly Family Income and the Respondents Assessment of Educational Tours with the Experiential Learning Theory (ANOVA)

		Mean	Std. Deviation	F-comp	P-value	Decision	Interpretation
Active Experimentation	P5000-P10000	3.5500	.63640	0.496	0.686	Failed to Reject Ho	There is no significant difference
	P10001-P15000	3.5500	.44609				
	P15001-P20000	3.7571	.34572				
	P20001 and above	3.5600	.41457				
	Total	3.5724	.41219				
Concrete Experience	P5000-P10000	3.4500	.77782	0.284	0.837	Failed to Reject Ho	There is no significant difference
	P10001-P15000	3.5667	.42269				
	P15001-P20000	3.6429	.26992				
	P20001 and above	3.6578	.38336				
	Total	3.6476	.38157				
Reflective Observation	P5000-P10000	3.5000	.70711	0.313	0.816	Failed to Reject Ho	There is no significant difference
	P10001-P15000	3.4167	.58109				
	P15001-P20000	3.5286	.36839				
	P20001 and above	3.5778	.40635				
	Total	3.5638	.41443				
Abstract Conceptualization	P5000-P10000	3.5000	.70711	0.141	0.935	Failed to Reject Ho	There is no significant difference
	P10001-P15000	3.5167	.49967				
	P15001-P20000	3.6143	.30783				
	P20001 and above	3.6122	.41539				
	Total	3.6048	.41310				
Overall	P5000-P10000	3.5000	.70711	0.181	0.909	Failed to Reject Ho	There is no significant difference
	P10001-P15000	3.5125	.46871				
	P15001-P20000	3.6357	.27908				
	P20001 and above	3.6019	.36380				
	Total	3.5971	.36584				

Table 11 shows the result on the significant difference between monthly family income and the respondents' assessment of educational tours with the experiential learning theory using ANOVA.

The result shows that monthly family income is not a factor when it comes to the respondents assessment of educational tours as a learning tool because all the of p-value was more than the significance level of 0.05.

The results reflect that there is no significant difference with the monthly family income of the respondents and their assessment of educational tours as a learning tool because monthly family income is not a factor to consider when assessing the effectiveness of educational tours. According to a NEA Member Benefits (n.d.), students learn much from the educational tours regardless of their socioeconomic status and monthly family income.

The result of the study answered the profile of the respondents such as the gender, section, educational tour/s joined and family monthly income. There were 53 female students (50.48%) who joined the educational tours and BTM 3-2 had the greatest number of students who went to the educational tours with a number of 29 students (27.62%) compared to the other sections. South Korea has more attendance from the students compared to the Taiwan tour which is 89 students out of 105 respondents. Lastly, most of the respondents came from family with monthly income of 20,001 Pesos and above that have a frequency of 90 and a percentage of 85.71%. The findings of the study showed that the 3rd year Tourism management students strongly agree that educational tours are a highly effective learning tool in terms of Active Experimentation, Concrete Experience, Reflective Observation and Abstract Conceptualisation based on the data gathered from the respondents.

Based on the findings of the study, the researchers found that there is no significant difference between the demographic profile of the respondents such as gender, school section, educational tours joined and family monthly income and their assessment of the effectiveness of educational tours as a learning tool. Regardless of the respondents' demographic profile, they have the same assessment on the effectiveness of educational tours as highly effective. All the respondents agree that educational tours are a highly effective learning tool.

Based on the findings the researchers concluded that educational tours are truly a highly effective learning tool to the third year tourism students. The students view the educational tours as highly effective regardless of their demographic profile such as gender, section, educational tours joined and monthly family income. This goes to show that the students learn from educational tours no matter what their gender, section, educational tours joined and monthly family income are. The students learn so much more outside the classroom, during their educational tours and they have fun while doing so.

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Electrical Characterization of Graphene Nanoparticles Conductive Ink using Thermoplastic Polyurethane (TPU) Substrate

Hartini Saad^{1*}, Ahmad Noor Syimir Fizal², Mohd Azli Salim³, Muhd Ridzuan Mansor³,
Ahmad Naim Ahmad Yahaya²

¹ Sekolah Kejuruteraan dan Sains Kreatif, Kolej Yayasan Pelajaran Johor, KM 16, Jalan Kulai- Kota Tinggi, Johor, Malaysia

² Universiti Kuala Lumpur, Malaysian Institute of Chemical and Bioengineering Technology (MICET), Taboh Naning, 78000 Alor Gajah, Melaka, Malaysia

³ Fakulti Kejuruteraan Mekanikal, Universiti Teknikal Malaysia Melaka, Hang Tuah Jaya, 76100 Durian Tunggal, Melaka, Malaysia

*Corresponding Author: hartini@kypj.edu.my

Abstract: *Conductive inks is used to create conductive paths as interconnecting tracks. This, research has been performed to produce lightweight conductive ink using composite materials with high electrical conductivity, environmental stability, and good engineering properties. In order to enhance the ability of conductive ink to conducts electricity, thermoplastics viscous paste used as conductive materials. The conductive ink application offer many opportunities of carbon nanomaterial especially for printed and flexible electronics. The effect on sheet resistivity for straight line shape, curve shape, square shape and zigzag shape circuit printed on thermoplastic polyurethane (TPU) substrate is investigate using graphene nanoparticles conductive ink as the connection material. The samples was fabricated using manual screen printing method with fix circuit thickness of 1mm, 2mm and 3mm. The sheet resistivity measured using ASTM F390 four point probe. Results obtained showed the lowest value of sheet resistivity was at 1 mm of width at 13972.306 Ω /sq and the highest was at 2 mm of width at 280818.944 Ω /sq for most of the patterns. The lower value of sheet resistivity depends on the nature of the material and the lowest value of standard deviations will cause the good performance of the electrical conductivity of graphene inks.*

Keywords: graphene nanoparticles, thermoplastic polyurethane (TPU), circuit pattern

1. Introduction

The thermoplastic viscous material that conducts electricity by inculcating conductive materials known as conductive ink (Al-Halhouli et al., 2018a). Main function of conductive ink is to create conductive paths used as interconnect. Conductive nanomaterials are introduced to obtain high electrical conductivity of conductive inks and the sizes of the nanomaterials should be less than hundreds of nozzle sizes to avoid clogging the printed head (Roberson et al., 2011). Several research methodologies have recently been developed to allow for the patterning of silver conductive lines on polydimethylsiloxane (PDMS) substrates using inkjet printing technology (Abu-Khalaf et al., 2018). No research has been reported on how to patterning a graphen nanoparticles conductive lines, curve, square and zigzag pattern on thermoplastic polyurethane

(TPU) substrate using screen printing. Various electronics applications widely used graphene as conductive inks for printable flexible electronics.

Another intention is graphene conductive inks have the potential to revolutionise the printed conductor field by replacing metallic inks, conductive polymer inks and other carbon material inks. This paper investigate effect of sheet resistivity at different patterns and width size using graphene nanoparticles conductive ink for straight line shape, curve shape, square shape and zigzag shape circuit printed on thermoplastic polyurethane (TPU) substrate were observed in this study at fixed circuit widths of 1 mm, 2 mm and 3 mm.

2. Literature Review

Conductive ink is very significant for electrical conductivity. Traditional function of conductive ink is to create conductive paths for use as interconnect (Agcayazi et al., 2018). Conductive ink is a new innovation because it processes less corrosion effect, cost effective (Li et al., 2018), lightweight and most importantly is the easiness to be adapted in electronic packaging industries (Wan et al., 2020). Carbon materials such as graphene and carbon nanotubes were used to produce conductive ink due to its electrical properties and capability to conduct electricity (Fernandes et al., 2020). Graphene also has ballistic transport properties, because the free electrons in the graphene can travel micro distances without being scattered (Haque et al., 2018). The electrical conduction mechanism of the composites can be explained by the percolation theory. The percolation threshold, which influences the electrical conductivity of the composites steeply increases by several orders of magnitude and the loading increases to a certain point (Kumar et al., 2019). Continuous electron parts are formed in the composites and the insulators are transformed to become conductors after this loading. In the other research done by M. Haghgoo et al., (2019) where electrical conductivity is enhanced because of the percolation threshold in carbon nanotube epoxy composite was the lowest (Deplancke et al., 2017). Based on this Figure 1, the composite material reaches the percolation threshold when the content of the conductive filler increases gradually (Mei et al., 2021). The electrical conductivity value of the composite material will increase in many orders of magnitude when the composite material reaches the percolation threshold, and the composite material becomes a conductive composites material (Alemour et al., 2018). In addition, the behavior appears because the filler is forming the path thoroughly into the dielectric materials (Zhang et al., 2019).

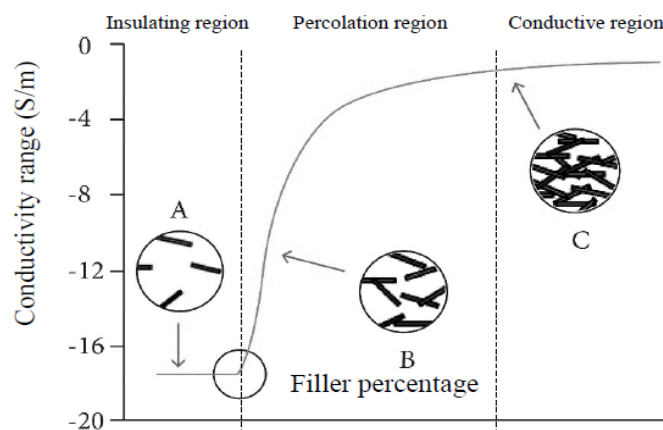


Figure 1: The dependence of electrical conductivity on the filler content (Alemour et al., 2018)

Table 1 shows the percolation threshold of carbon-based materials reinforced with different polymer resins. Percolation threshold indicate that the transformation of borderline between bulk insulator and to bulk conductor polymer (Kargar et al., 2018). According to Ram et al. (2019), percolation threshold value is dependent on the characteristic (shape and size) of the conductive filler. The minimal percolation threshold is given by graphene composites because graphene is lightweight material and has low density (Yoonessi et al., 2017). Plenty of graphenes can be added into the formulation and the percolation becomes very small until the electron can easily move to another location, and the conductivity level becomes higher (Konsta-Gdoutos et al., 2010).

Table 1: The percolation threshold of carbon-based (Alemour et al., 2018)

Material with different polymer resins	Percolation threshold (vol%)
Functionalized graphene filled epoxy composites	0.10
Neat graphene/epoxy nanocomposite	0.53
Graphene/polyethylene composite	0.07
Polybutylene terephthalate	0.7
The graphene/polyethylene terephthalate (PET) nanocomposite	0.47
TRGO (thermally reduced graphene oxide)	<0.5
Graphite	>2.7
PS/graphene composites	0.10
RGO (reduced graphene oxide)/PVC/vinyl nanocomposite	0.15
Polybutylene terephthalate nanocomposite	0.47

3. Discussion and Conclusion

Discussion

In contemplation to discuss and analyzed the effect of pattern and width of graphene nanoplatelets (GNP) on the electrical conductivity performance of the sheet resistivity of the conductive ink was measured and the data was recorded and tabulated in Table 2 and Figure 2 to Figure 8 respectively. Based on Table 2, it shows the standard deviation of sheet resistivity for three different width and four types of pattern. Every each pattern consists of three types of width, 1 mm, 2 mm and 3 mm. Each sample of width, consists of three points to measure the uniformity of printed graphene ink. There is no standard benchmark in determining the standard deviation, but the best standard deviation must have the lowest value. It presents how tightly the data is spread out from mean or average. From the same table, for straight line pattern, curve pattern, square pattern shows that 2 mm width has a very large standard deviations compared to 3 mm and 1 mm width. For zigzag pattern shows that 3 mm width has very large standard deviation. It means that the data is spread widely from the average, which indicates that they have the highest average resistivity. For straight line pattern, curve pattern and zigzag pattern of 1 mm width, and square pattern shows 3 mm width has a small standard deviation, which illustrates that the data is gathered closely around the average. It proves that for straight line pattern, curve pattern and zigzag pattern of 1 mm width and square pattern of 3 mm width has the lowest and stable average resistivity. From all the four types of patterns reveal that the straight line has the smallest standard deviation among them. So, straight line pattern shows the lowest and stable average resistivity compared to three other patterns. Sheet resistivity was analysed based on the track width of the straight line, curve, square and zigzag patterns. The lowest value of sheet resistivity was at 1 mm of width and the highest was at 2 mm

of width for most of the patterns. The sheet resistivity relationship relative to the different patterns at different width showed that sheet resistivity of the pattern decreased when the width of the pattern was decreases. According to the trend for zigzag pattern, the smaller the width, the value of sheet resistivity decreases. If the width is bigger, the value of sheet resistivity values will increase (Saad et al., 2020). The overall obtained results showed that a straight line pattern produced good performance because the performance of a printed line was dictated by its geometry.

Table 2: Resistivity for graphene nanoparticles

Pattern	Width (mm)	Point	Average sheet resistivity (Ω/sq)
Straight line	1	1	55597.440
		2	79634.270
		3	79469.587
	2	1	454690.375
		2	470436.950
		3	383554.350
	3	1	261700.750
		2	428529.360
		3	338419.200
Curve	1	1	268929.975
		2	124686.350
		3	175319.500
	2	1	737077.000
		2	294098.380
		3	712855.750
	3	1	403746.200
		2	411043.350
		3	231469.700
Square	1	1	135473.445
		2	130539.613
		3	157319.608
	2	1	631907.200
		2	917675.050
		3	342459.600
	3	1	180434.850
		2	366091.020
		3	464622.520
Zigzag	1	1	69441.675
		2	150092.758
		3	71370.200
	2	1	196585.300
		2	184604.647
		3	319851.467
	3	1	1007824.450
		2	925244.117
		3	1077955.867

Based on Figure 2, the width of 1 mm shows the lowest values of sheets resistivity and the lowest values of the error bars. It prove that the data is gathered closely around the average and the width of 1 mm for straight line has lowest and stable average resistivity. While the highest values of

sheet resistivity and error bars are at 2 mm width. The error bars in the figure show the standard deviation of the values. Phillips et al. (2017) findings ratio was increased, the lower carbon content ink became substantially less conductive by comparison. Given the higher polymer content, a higher resistivity would be expected across the full range; part of this may be due to the difficulty in obtaining a representative ink film thickness measurement for the inks (note that the standard deviation takes into account variation in both sheet resistance and thickness measurement).

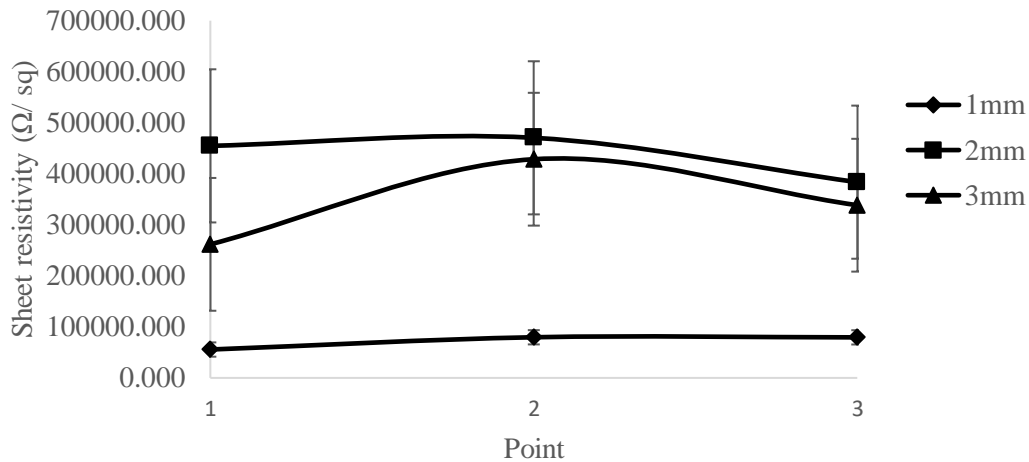


Figure 2: Sheet resistivity at different width for straight line pattern

Figure 3 shows the sheet resistivity for different width of curve pattern. By referring to the figure, the low sheet resistivity readings are at 1 mm width, follow by 3 mm width and the highest sheet resistivity readings are at 2 mm width. The lower value of sheet resistivity depends on the nature of the material as discussed earlier. The increase and decrease of the sheet resistivity depend on the nature of the material and the physical shape or pattern affects the resistance of the samples (Saad et al., 2020). Nevertheless, the lowest value of standard deviations will cause the good performance of the electrical conductivity of graphene inks.

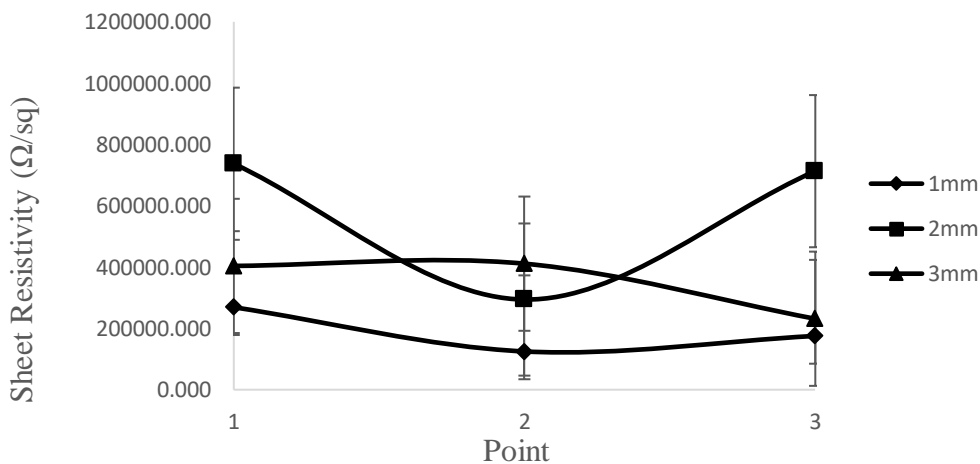


Figure 3: Sheet resistivity at different width for curve pattern

Figure 4 shows the sheet resistivity against points of filler loading for graphene inks of three types of width 1 mm, 2 mm and 3 mm for the square pattern. In general, the sheet resistivity of the ink increases with the decreases of conductivity of the material. By referring to the Figure 4, the graph of 1 mm width has the lowest sheet resistivity readings. Khuzaimah et al. (2018) a significant difference between resistivity of 1 mm circuit width to the other circuit width was also noticed from the experimental results, indicating lower electrical conductivity performance by commercial conductive paste when thinner circuit width is applied. This illustrate data is gathered closely around the average. Follow by the 3 mm width graph and the highest sheet resistivity readings are at 2 mm width. It shows that data at 2 mm width spread widely from the average and indicates that they have highest average readings.

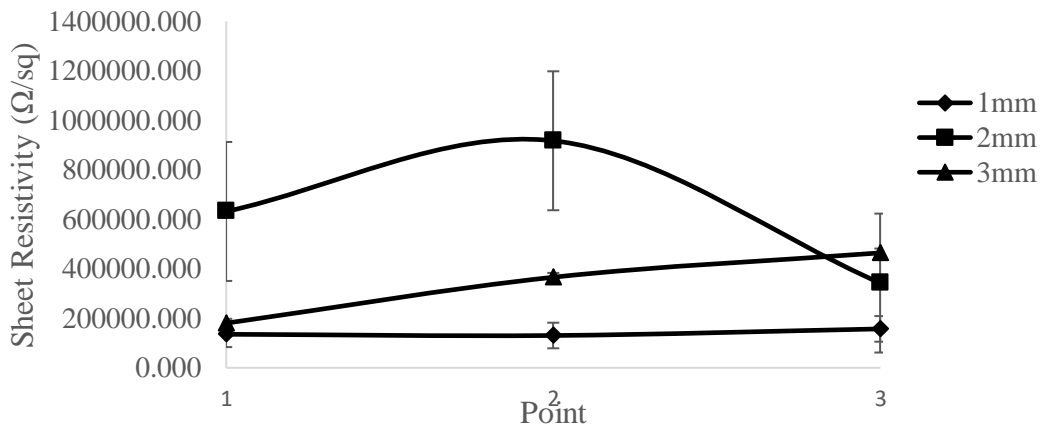


Figure 4: Sheet resistivity at different width for square pattern

Figure 5 shows the sheet resistivity at different width for the zigzag pattern. Based on the figure, the lowest sheet resistivity is at 1 mm width, follows by 2 mm width and the highest sheet resistivity at 3 mm width. The relationship shows that sheet resistivity of the pattern decreases when the width of the pattern is increased. (Saad et al., 2020) findings sheet resistivity increased by increasing the width of the samples from 1 mm width to 2 mm and for 3 mm width, sheet resistivity decreased slightly. Based on these observations, a 1 mm width for zigzag pattern gives the best performance of electrical conductivity.

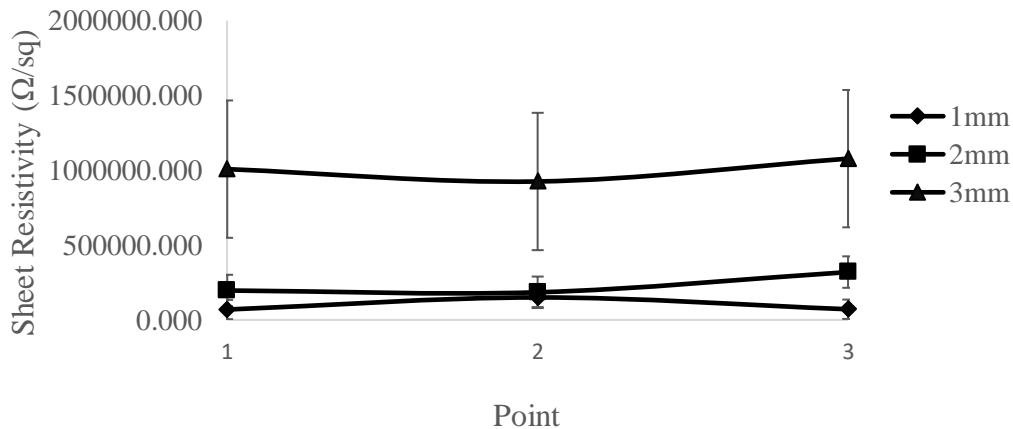


Figure 5: Sheet resistivity at different width for zigzag pattern

Different types of screen patterns were developed to study the electrical properties of the graphene conductive ink. The printability of the graphene conductive ink was compared in terms of sheet resistivity between different patterns. Figure 6 displays sheet resistivity against different patterns for 1 mm width. Based on the observation, the lowest graph is on the straight line pattern. This shows that the lowest sheet resistivity of 1 mm width is a straight line pattern and the highest sheet resistivity readings at the zigzag pattern. Sheet resistivity lowest values at 1mm width is similar findings was recorded where it is observed that, the smaller the width, the value of sheet resistivity decreases because the resistance is the opposition to the flow of electrons through the material in response to an applied voltage (Saad et al., 2020). Therefore, the straight line pattern gives the best performance of electrical conductivity for 1 mm width.

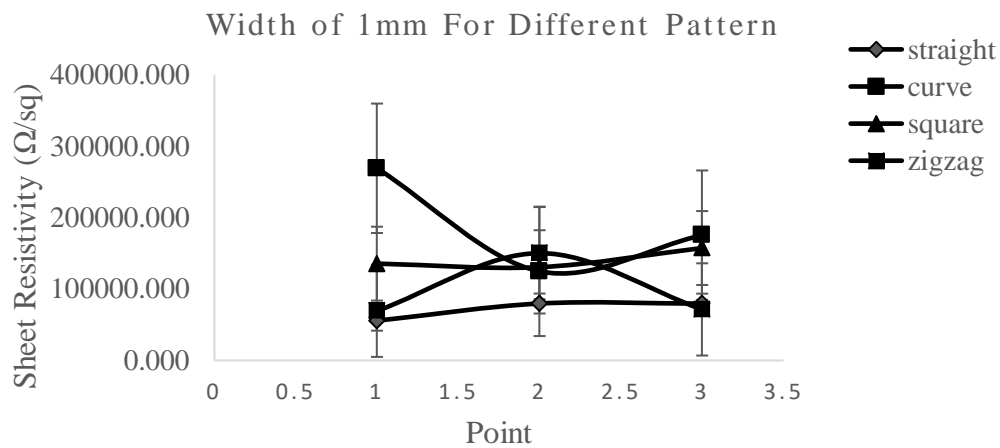


Figure 6: Sheet resistivity at the different pattern for 1 mm width

Figure 7 shows the graph of sheet resistivity at a different pattern for 2 mm of width. The lowest graph of sheet resistivity is in the zigzag pattern. From observation, the zigzag pattern gives the best performance of electrical conductivity for 2 mm. The results reveal that zigzag pattern gives the best performance of electrical conductivity for 2 mm width. The sheet resistivity of zigzag pattern decreases with the increase of the width, and where the inherent conductivity of the printed ink, the performance of a printed line is dictated by its geometry (Phillips et al., 2017). According to Abu-Khalaf et al. (2018), the 2 mm width of horseshoe (curve) pattern, printed in one layer of silver conductive ink indicated an initial resistance of 40 Ω at zero strain and reaches 279 Ω at 16 % strain and start to decreases to 45 Ω after the load was removed. At no load, the measured initial resistance is 32.8 Ω and it increases up to 664 Ω as the circuit is gradually loaded to strain for straight line pattern.

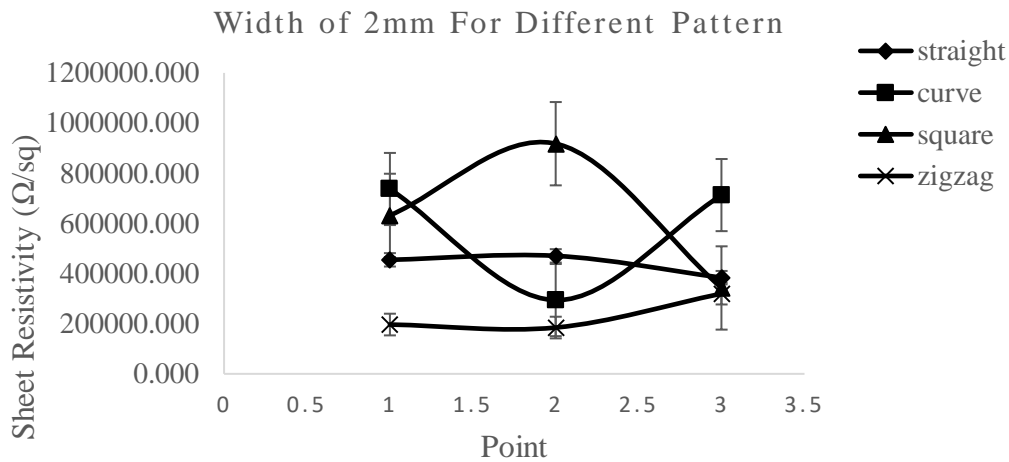


Figure 7: Sheet resistivity at the different pattern for 2 mm width

Figure 8 shows the sheet resistivity against 3 mm width at three different points for different types of patterns. The results of the graph reveal the sheet resistivity for the square pattern is the lowest as compared to a straight line, curve, and zigzag patterns. The width of 3 mm for the square pattern gives the best performance of electrical conductivity because the decrease of the sheet resistivity produces the best performance of electrical conductivity. In other words, the resistivity is directly proportional to the temperature of the material and the conductivity of the material is inverse to the resistivity.

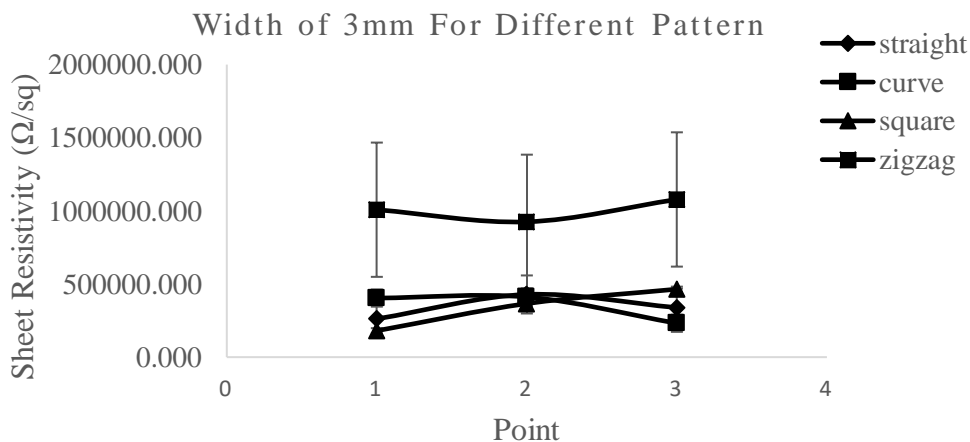


Figure 8: Sheet resistivity at the different pattern for 3 mm width

Conclusion

The electrical characteristics of graphene nanoparticles conductive ink was observed based on different patterns and width. 1mm circuits' width showed significant difference sheet resistivity compared to 2 mm and 3 mm circuit width. This revealed that the carbon-based conductive paste is more suited for wider-size circuit geometry application as compared to fine-size circuit geometry. The result analysis showed that the usage of graphene will increase the electrical performance of conductive ink making it suitable for large scale of applications such as

electromagnetic shielding, electronic components, and electrodes for rechargeable batteries, capacitors, sensors and actuators in comparison to existing conductive ink in terms of the best performance of electrical conductivity. Future study can be made to observe the difference in the mechanical and physical characteristics of graphene nanoparticles conductive ink which further optimized its usage on industrial sector.

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Employee Voice Behaviour: Role of Empowering Leadership and Leader-Member Exchange

Thuraisyah Jaaffar^{1*}, Naresh Kumar Samy^{1*}

¹ Faculty of Entrepreneurship and Business, Universiti Malaysia Kelantan, Malaysia

*Corresponding Author: thuraisyah.a16e037f@siswa.umk.edu.my, naresh@umk.edu.my

Abstract: *Employee voice is the key to many positive outcomes for for-profit and non-profit organisations. Nevertheless, employees at all levels need to feel secure in expressing their opinions and discomfort freely within their organisation. It is common to notice that employees continue to be silent even though they have fascinating ideas in an organisation poorly embedded with a culture of openness and appreciation. Perhaps, forbids potential use of dynamics innovative thoughts to magnify organisational performance. Through literature review, we could notice numerous conceptual and empirical reports from various workplace and situations comprehending causes and effects of employee voice behaviour at individual, team and organisation levels. Leadership has long been known as an impetus in encourage employees to communicate effectively. The growing interest in employee voice behaviour signifies the importance of the present workplace. Blending different dimensions besides leadership to address workplace issues is being aggressively premeditated as the body of knowledge is not saturated, evolving, and requires research direction from multiple perspectives. Therefore, this article synthesises existing literature, recognises and highlights the psychological mechanisms to hasten employee voice behaviour. A conceptual framework and propositions for research presented.*

Keywords: Employee voice behaviour, leadership, psychological mechanisms

1. Introduction

Scholars have shown significant interest in analysing the causes and effects of employee voice conduct that has intensified over the last few decades (Maynes & Podsakoff, 2014). Researchers have observed voice behaviours in several contexts, from structured grievance processes and whistleblowing to reveal the fraud to recommendation structures and casual dialogue that connects progressive ideas. Morrison (2014) alluded that many scholars recognise the voice as not merely a rejoinder to unsatisfying conditions, but it is a necessary form of extra-role behaviour (Van Dyne & LePine 1998). Employee voice is one of the drivers for organisational change and development efforts while striving to maintain a competitive edge in a multifaceted environment. Active participation among the employees in engendering ideas via positive voice behaviour can be advantageous for an organisation in facing unforeseen economic and political turmoil. Many supports rendered by researchers that employees' contributions pointedly to organisational effectiveness and high-quality decision making (Burris, 2012; Allen, Yoerger, Lehman-Willenbrock & Jones, 2015). Although voice has been conceptualised and interpreted in various ways, the fundamental idea underlying the perspectives on voice is base on employees right to

participate actively in all aspects of work-life using formal and informal manners (Hodson, 2001, p. 237).

In general, voice is a mean to demonstrate a view from an employee perspective to improvise practices in the organisation. Failing to voice up will reduce the opportunities to make changes and development of a productive workplace. Undoubtedly, top management of any establishments plans to encourage employees to voice progressive opinions without dread (Liang, Farh, & Farh, 2012; Morrison, Wheeler- Smith, & Kamdar, 2011). Employees who possess the extra mile behaviour consider the psychological safety in doing the act. Other researchers suggest that many employees do not speak up because they fear the potential personal costs may prevail over the benefits (Detert & Edmondson, 2007; Milliken et al., 2003). The employees tend to outweigh the perceived risk more than the benefit. When the employees perceive that the organisational environment is unsafe or threatening, they might stop expressing their concerns. Interestingly, Ekaterini (2010) suggests that the management team needs to create a supportive, encouraging and conducive work atmosphere for employees to express themselves freely. Psychological safety found to facilitate voice behaviour a few decades ago (Van Dyne et al. 2008), and significant relationships were showcase to date.

In terms of individual innovative work behaviour, intrinsic motivation has long been considered an essential element for employee innovation (Woodman, Sawyer & Griffin, 1993). Intrinsically motivated employee presumed to be able to conduct work beyond the job scope due to a feeling of attachment to the organisation. Besides, it includes raising concern on the organisational related problem to seek improvement and as the opportunity to learn and explore new things. Although voice behaviour is a voluntary, proactive behaviour, researchers highlight the underutilisation of this behaviour due to interpersonal risks. In addition, employees have varying degrees of comfort about expressing concerns and opinions (Milliken et al., 2003; Van Dyne & LePine, 1998). Hence, it is vital to understand the psychological mechanisms that encourage employees to voice their thoughts.

2. Impetus of Voice Behaviour

2.1 Empowering Leadership

Empowering leadership is known as leader behaviour directed at individuals or teams. It involves delegating authority to employees, promoting their self-directed and autonomous decision-making, coaching, sharing information, and seeking input (Sharma & Kirkman, 2015). Leadership has been an important mechanism or driving force that enables individuals to change or act innovatively. Depicted from the empowerment process definition, empowering leadership is "a process of enhancing feelings of self-efficacy among organisational members through the identification of conditions that foster powerlessness and through their removal by both formal organisational practices and informal techniques of providing efficacy information" (Conger & Kanungo, 1988, p.474). In addition to this, empowered employees would have greater authority and responsibility for their work (Conger & Kanungo, 1988) and enable them to act differently.

Empowering leadership has also been looked at as behaviour whereby power is shared with subordinates and raises intrinsic motivation (Pearce & Sims, 2002; Srivastava et al., 2006). Researchers have conceptualised at the individual level, the critical elements of empowering

leadership consist of influencing subordinate in three ways: (1) power-sharing, (2) motivation support, which are two forms of autonomy, and (3) development support (Amundsen & Martisen, 2014). Further, these key elements are meaning "to promote their experience of self-reliance, motivation, and capability to work autonomously within the boundaries of overall organisational goals and strategies" (Amundsen & Martisen, 2014, p. 489).

Leading by example, participative in decision making, coaching, informing, and showing concern are several important examples of empowering leadership (Arnold, Arad, Rhoades, & Drasgow, 2000) besides developing the subordinates self-leadership skills (Manz & Sims, 1987). Indirectly, an empowered employee become an effective self-leader and possesses a high confidence level to convey the upward message to the attention of the managerial. Empowering leadership play a significant role in developing a subordinate personality. In a competitive environment, leaders expected to be participative and able to lead themselves (Amundsen & Martisen, 2014). According to Kim and Beehr (2018), the seeming paradox of a leader influencing people to conduct themselves solved by empirical research identifying the behaviours comprising empowering leadership. For example, it is encouraging (rather than directing or forcing) subordinates' opportunity thinking, self-reward, self-leadership, participation in goal setting, and teamwork.

Furthermore, Budd, Gollan, and Wilkinson (2010) suggested that participation in decision making from the employee-led to a cultural shift. An empowered employee will eventually sense their responsibility to voice their opinion in the organisation. In line with this, scholars and practitioners encourage empowering leadership styles, organisational learning behaviours, and collective decision making because such behaviours facilitate participative management (Bass & Riggio, 2006; Senge, 1990).

2.2 Leader-Member Exchange

Leader-Member Exchange (LMX) theory by Graen and Uhl Bien (1995) focuses on the relationship between leaders and subordinates. Katz and Kahn (1978) posit that in organisations, the interpersonal relationships are unavoidable whereby such relationship is essential to achieve goals, effectiveness, and coordination in the working environment (Ferris et al., 2009). Based on the dyadic social exchange, the quality of the working relationship between leaders and members is predictive of the outcome at different levels of analysis (Graen & Uhl-Bien, 1995). Besides, since LMX portrays the relationship between leader and subordinate, everyone is expected to offer something valuable to each other, and the exchange should be recognised as impartial (Liden & Maslyn, 1998). Fundamentally, Social Exchange Theory (SET) describes leaders and subordinates' interaction and the reasons for differences in the influences of LMX quality on individual outcomes (Greguras & Ford, 2006; Xerri, 2014). High-quality LMX leads to high performance and extra-role behaviours (Hsiung, 2012; Martin, Guillaume, Thomas, Lee, & Epitropaki, 2016). Such behaviour allows employees to pay back support and respect their leaders (Dinesch & Liden, 1986; Graen & Uhl-Bien, 1995).

Voice behaviour is a voluntary communication of work-related ideas and concerns to promote positive change. These expressions of ideas and concerns usually addressed by employees to their immediate superior and could be perceived as a challenge to the status quo (Liu et al., 2010). For this reason, voice behaviour noted to have an inherent risk (Detert & Burris, 2007; Milliken,

Morrison, & Hewlin, 2003). Before an employee engages in a specific action, they mentally examine their work environment and evaluate the possible consequences of that action. The immediate supervisor's behaviour plays a significant role in the employee's decision to speak up or remain silent when they have potentially vital information to share (Morrison, 2011; Detert & Burris, 2007). More importantly, previous studies indicate various positive outcomes of LMX that attests that the leader and member relationships should not misjudge (Ballinger, Lehman, & Schoorman, 2010; Chen & Eldridge, 2011; Credo, Armenakis, Feild, & Young, 2010). For example, high quality of leader-member exchange may contribute to the positive organisation performance whereby the employee will have more access and opportunities to speak up with their supervisors (Botero & Van Dyne, 2009). Secondly, it built a more extraordinary trust relationship between employee and supervisors. Lastly, rather than feeling obligated, the employee will voluntarily give opinions due to the favourable treatment received. Previous studies remarked that employee intrinsic motivation developed from the fair treatment they receive, and therefore help to improve the work environment (Burris, Detert, & Chiaburu, 2008; Hsiung, 2012).

2.3 Psychological Safety

Psychological safety showed when employees feel safe expressing their concerns without fear of negative consequences to self-image, status and career (Edmonson, 2004; Kahn, 1990). Further, Kahn (1990) denotes the higher levels of psychological safety will increase employee engagement as they feel safe and no threat is perceived. According to Edmonson (p.4, 2004), psychological safety is referred to as a "tacit calculus at the micro-behavioural decision point of the consequences of taking an interpersonal risk at a workplace." Moreover, Schein and Bennis (1965) study on organisational change describes that psychological safety is an atmosphere where one can take chances, which they feel secure in and capable of adapting to change.

Besides that, psychological safety has been consistently playing an essential role in facilitating ideas and activities for an organisation, especially in team level phenomenon (Edmonson, 2014). For example, psychological safety in the workplace environment helps the learning behaviour cultivated in the team learning process. When team members proactively provide a suggestion for organisational improvement, they consider the possible consequences that they might face. They often thought their recommendations might be judged or misinterpreted by those around them. However, according to Dutton, Ashford, O'Neill, Hayes, and Wierba (1997), in some circumstances, the employee often makes the wrong assessment of whether it is safe to voice up. The employee believes that speaking up is pointless when it is safe and welcomed (Detert & Edmondson, 2011). In argument of this, managerial beliefs and behaviour play a prominent role in supporting employees' engagement in voice behaviour or opt not to engage in voice behaviour, according to Morrison and Milliken (2000). The employee will be most likely to engage in voice behaviour if they perceive the positive environment in the organisation.

In the healthcare setting, the psychological safety environment becomes crucial to provide positive performance outcome, whereas staff often outweigh the risk rather than the positive impact. Psychological safety reflects the perception of consequences for taking an interpersonal risk in the work environment. For example, employees who perceive their direct supervisor to be supportive, open, respectful, and trustworthy will feel their work environment to be psychologically safe, hence, more likely to engage in speaking up behaviour. To strengthening the point, according to

Edmonson and Lei (2014), empirical findings from various regions and countries suggested that psychological safety is vital to promote workplace effectiveness.

2.4 Intrinsic Motivation

Motivation is an essential component and plays a central role in organisational behaviour research (Deci & Ryan, 1985). Motivation refers to an individual's psychological process, which determines the individuals' behaviour and provides direction to reach a particular goal (Deci & Ryan, 1985; Locke & Latham, 2004). According to Deci and Ryan (1985), two types of motivation encourage people to involve in a specific activity: intrinsic motivation and extrinsic motivation. Xu and Li (2015) posited that individuals' behaviour could be explained by these two types of motivation, whether originating from themselves or imposed externally. According to Utman (1997), intrinsic motivation is a mental mindset, which an individual is interested in a task and engages in it for the sake of the job itself (Amabile et al. 1994; Gagne & Deci, 2005; Pinder, 2014; Ryan & Deci, 2000) and not guided by an external reward. Intrinsic motivation has become necessary research in innovative work behaviour to study the motivation behind the individual creative work behaviour and often leads to better performance and outcomes (Miller, 2002; Ryan & Deci, 2000; Scott & Bruce, 1994). By large, it includes the study of individual creativity performance. Moreover, Katz (2005) expressed that intrinsic factors are the primary cause of an individual's level of dedication and motivation.

According to Ryan and Deci (2000), to understand intrinsic motivation, the Self Determination Theory (SDT) provides the well-established framework that comprises three inherent needs that motivate one to initiate behaviour: competence, autonomy, and relatedness. Competence refers to an employee's need to succeed in accomplishing desired outcomes when faced with challenging tasks. Autonomy refers to the demands for an employee to experience initiation, maintenance, and control of his or her behaviour. Finally, relatedness refers to the need for an employee to feel connected with others. Optimal desired outcomes attained when employees' three needs are balanced (Vallerand, Pelletier, & Koestner, 2008).

According to SDT, it is the starting point for addressing the question by explaining how intrinsic motivation drive the direction, intensity, and persistence of motivated behaviour (Kanfer, Chen, & Pritchard, 2008). First, a relation exists between the choice of leadership and intrinsic motivation. When individuals find a particular task enjoyable, they are more likely to engage in the job, as alluded by Patall, Cooper, and Robinson (2008). For example, intrinsically motivated students actively engage in learning and teaching, while extrinsically motivated individuals instead choose to be passive (Benware & Deci, 1984). Second, an employee who finds the task intrinsically motivating will spend a higher degree of effort in its production. For example, the enjoyment of learning new material and updating skills has been linked to the level of effort nurses expend under complex learning situations (Simons, Dewitte, & Lens, 2004). Finally, levels of intrinsic motivation should also link to performance under SDT through their impact on motivational persistence. When individuals find a task enjoyable or exciting, they should engage with the job for more extended periods, persisting beyond the point at which they receive the reward (Deci, 1972). For example, intrinsically motivated individuals tend to stay longer on tasks, which yields better academic achievement (Gottfried, 1985), job performance (Grant, 2008), and test performance (Vansteenkiste, Lens, & Deci, 2006), among others.

3. Voice Behaviour

Employee voice stems from Hirschman's (1970) claimed that employees would either face dissatisfaction or voice their concerns or exit from the organisation. The act of employee voice in this situation described providing valuable suggestions to the organisation to improve, including conveying the potential problems to the supervisor's attention (Whitey & Cooper, 1989). Since the Hirschman EVL model introduced, numerous researchers attempt to build a new model predicting customer responses to the organisation at the declining stage. The models then conceptualised as exit, voice, loyalty, and neglect (EVLN), further elaborated by Farrel (1983). This model describes four different ways employees can respond to personal dissatisfaction at work (Morrison, 2011). Within the framework, Morrison (2011) stated that voice is an "efforts to try to improve current conditions and included a wide range of behaviour: raising issues to one's supervisor, making attempts to change working conditions, working harder, asking co-worker's for advice about what to do, or contacting an outside agency to get help in changing working conditions" (p. 381).

The study of voice behaviour prevails that although the employees have the willingness to voice out for constructively improve the status quo in the organisation, the nature of voice had placed them in an uncertain position. Employees need to consider various factor before speaking up, such as to whom they would like to speak up, whether they are being listened to, and the organisational norms, whether encouraging or prohibiting voice (Mowbray, Wilkinson & Tse, 2015; Morrison & Milliken, 2000; Goldberg, Clark & Henley, 2011). Moreover, various researchers emphasise the importance of leaders as they play a crucial role in shaping the employee's beliefs whether it is safe to speak up (Detert & Burris, 2007; Morrison, Wheeler-Smith, & Kamdar, 2011; Tangirala & Ramanujam, 2012; Venkataramani & Tangirala, 2010). Considering voice as the social activities involving the expression of suggestions to others (Lee et al., 2014), there is a need to study the leader-member exchange quality. Noted that employee voice behaviour requires leadership support, the researcher also incorporates the psychological mechanisms expected to affect voice behaviour significantly. Psychological safety generally proposed as the mediator of the relationship between empowering leadership, leader-member exchange and voice behaviour. Psychological safety encourages higher levels of employee well-being that makes employees feel comfortable, free from external controls or constraints, and engages them in more voice behaviour (Burke, Stagl, Salas, Pierce & Kendall, 2006; Kim, Shin & Swanger, 2009). Besides that, through the leaders' empowering leadership behaviour and leader-member exchange relationship, it is expected that employee intrinsic motivation intensifies. Bolino and Turnley (2009) assert the leaders reciprocate members with rewards such as resource allocation and personal development, instrumental to employees' intrinsic and extrinsic motivations. Intrinsic motivation expected to facilitate interpersonal work context. Intrinsic based motivation reflects how an employee is excited about work activity and not guided by external reward (Utman, 1997).

4. Theoretical Foundation

Most studies of voice behaviour grounded on social exchange theory. According to Blau (1964, p. 91), "social exchange... refers to voluntary actions of individuals that are motivated by the returns they expected to bring and typically do bring from others". This theory explains the relationship between an individual and the environment that communicate between them. Scott, Restubog, and Zagenczyk (2013) proposed that social exchange theory describes a feeling of being either excluded or included as essential and influences people's attitudes and behaviour. The interaction

between individuals then creates the information sharing processes, which are closely related to this study. Based on this assumption, social integration is essential to make the exchange process possible and become a research concern.

The Social Exchange Theory (SET) and Leader-Member Exchange (LMX) theory serve as the foundation to guide the proposed research framework. According to Cropanzano, Anthony, Daniels, and Hall (2017), social exchange theory is one of the most prominent conceptual perspectives in management and related fields like sociology and social psychology. Referring to the SET theory, employees perceive influential organisational members as personifications of the organisation. Therefore, the nature of treatment received from these individuals represents workers' views of the organisation intentions towards them. Furthermore, employees that are involved in the reciprocation process, and since the organisation that they work for demonstrate care for their welfare is most likely to engage in job-related activity that may benefit the organisation, according to (Ahmed, Ismail, Amin, & Nawaz, 2013; Diefendorff, Brown, Kamin & Lord, 2002; Lassk et al., 2001). In addition to this, the excellent treatment they received, consequently, facilitates them to have more trusting and high-quality relationships with the organisation (Colquitt, Baer, Long, & Halvorsen-Ganepola, 2014; Karatepe, 2013; Saks, 2006). Consistent with the previous study, which asserts that establishing the relationship between employee and employer is most likely to display affective and behavioural outcome (Cropanzano, Weiss, Hale, & Reb, 2003). In contrast, some researchers also indicate that SET may produce an undesirable result in negative reciprocation processes (Cropanzano et al., 2017). These often occur when the employee possesses a low commitment towards the organisation and avoids actively participating in any organisation activity.

Leader-Member Exchange Theory (LMX) postulate that leaders do not treat followers equally but develop and maintain interpersonal relationships that differ in quality. Researchers recommended that leadership behaviours be examined individually (Dansereau, Graen, & Haga, 1975; Graen & Scandura, 1987; Graen & Uhl-Bien, 1995). LMX theory emphasises the quality of the dyadic relationship between a supervisor and a subordinate (Dansereau et al., 1975). High-quality LMX relationships shared by mutual trust, respect, reciprocal influence, loyalty, liking, and a sense of obligation (Graen & Uhl-Bien, 1995; Wilson, Sin, & Conlon, 2010). High-quality LMX can promote employee voice for the following four reasons. First, employees in high-quality LMX relationships have more access to and communication with their supervisors, enabling more opportunities to speak up (Botero & Van Dyne, 2009). Second, in high-quality LMX relationships, subordinates trust their supervisors and benefit from more robust work support and supervisor responsiveness. These qualities encourage subordinate to perceive that little personal cost or risk is involved in speaking up and that their suggestions are likely to be understood (Botero & Van Dyne, 2009; Hsiung, 2012). Third, when employees believe that they are getting good treatment, they feel the need to reciprocate this favourable treatment and seek to help the organisation through voice behaviour (Burris et al., 2008; Van Dyne et al., 2008). Employees who have high-quality exchange relationships with their leaders may also contribute role expansion, perceive that they have more responsibility, and have a strong intrinsic motivation to improve the immediate work environment (Burris et al., 2008; Hsiung, 2012). Finally, high-quality LMX indicates that the leader-member relationship progresses to a partnership level (Uhl-Bien, Graen, & Scandura, 2000; Hsiung, 2012). Employees in high-quality LMX relationships tend to comprehend their

supervisors' positions and perspectives, have a greater likelihood of providing many suggestions to the organisation and aim to achieve goals that collectively benefit both subordinates and supervisors (Hsiung & Tsai, 2009; Hsiung, 2012). In addition to this, LMX is predictive of various studies on performance-related job outcomes (Gerstner & Day, 1997; Ilies, Nahrgang, & Morgeson, 2007; Yukl, 2012).

5. Research Framework

Based on the theoretical foundations and empirical evidence obtained from the previous literature, the proposed research framework illustrated in Figure 1. The framework includes five main variables: EL, LMX, psychological safety, intrinsic motivation, and voice behaviour. EL and LMX are the independent variables, psychological safety and intrinsic motivation proposed as the mediating variables, whereas voice behaviour is the dependent variable.

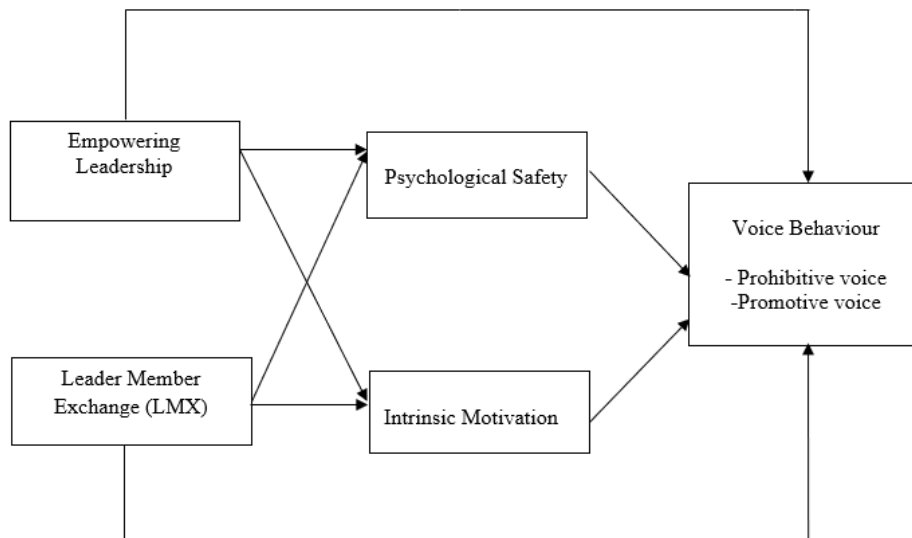


Figure 1: A proposed research framework

6. Conclusion

From the literature search, voice behaviour study has been expanded overtime. Since the organisation recognises the importance of having reactive employees participate in giving the opinion, they cannot solely depend on the management in making the decision alone. As indicated in the literature, employees are the vital asset that drives the organisation's success and assist in the innovation process. However, the realisation of success requires a supportive and encouraging environment. Throughout the literature discussed, empowering leadership behaviour and leader-member exchange identified the vital variable in studying voice behaviour among nurses. In addition, psychological safety and intrinsic motivation included as a mediating variable, as a complete research framework to study voice behaviour.

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Indonesian Head Teachers' Understanding about Bullying and Its Relation to Action, Policies and Programs in Tackling it

Rahmatullah^{1*}

¹ Secondary School, Yayasan Bale Edukasi Indonesia, Central of Lombok, Indonesia

*Corresponding Author: Rahmatullahkopang@gmail.com

Abstract: *A sufficient understanding of bullying is necessary for every school leader. Thus, they will then be able to undertake prevention action before bullying incidents appear at school. This case study research seeks to discover Head Teachers' understanding about bullying, how this understanding is related to actions, programs and policies manifested at school and how these issues differ between state and private elementary schools. The study was carried out in Lombok, West Nusa Tenggara, in Indonesia. Six Head Teachers were selected by employing a purposive sampling method. Three participants came from state elementary schools and the other three came from private elementary schools. A semi-structured interview was employed to gather the data. This was then coded, sorted and analysed by performing the content analysis method. Furthermore, in organising the data, a constant comparative approach was also implemented to review and search for the key issues or other aspects within which later became the focus categories. The findings of the study concluded that Head Teachers' understanding of bullying was very limited. As a result, the study found no direct actions, programs and written anti-bullying policy in place to tackle bullying. However, some programs were identified to have a role in preventing bullying. These focused on promoting good behaviour. Finally, the study also discovered a slight difference between state and private elementary schools, and in respect of these programs. Namely that the private schools utilized more of these programs. The study was found to be immediately useful for all participants and the researcher. A seminar to address the issue of bullying was arranged to be held in the following months in all of the sampled schools.*

Keywords: Head Teacher, bullying, anti-bullying policy, programme in preventing bullying

1. Introduction

Creating noble and well-behaved citizens are two of Indonesia's national education goals. Therefore, Indonesia emphasizes that any forms of discrimination is unacceptable, especially at schools. According to Keputusan Presiden (Presidential Decree) number 36 (1990) about Convention on the Right of the Child, it is a must for Indonesia to ensure that all Indonesian children should be protected from any form of harassment and discrimination regardless of skin colour, race, gender, ethnicity, religion, language and political belief. Hence, they can live, grow and develop optimally (Constitution of the Republic of Indonesia, Number 23, 2003). However, these noble ideals still look far from expectations. Cases of aggressive behaviour such as bullying are still found in most schools in Indonesia. A survey conducted by UNICEF, cited in UN News (2018) found that one in five children in Indonesia have been bullied – some 18 million in all.

The Head Teacher of a school acts as its architect in creating what it is. Research by Leithwood et al. (2008, p.5) found that “leadership has very significant effects on the quality of school organisation and on pupil learning”. This claim is supported by the study of Sammons, Hillman and Mortimore (1995) and Robinson (2007) concluding that there are no documented cases of where a school has successfully turned around its and its pupils’ achievement direction of travel without a talented Head Teacher. It could be that an explanation for this is that good leadership acts to unleash the latent potential that is already in existence with the organisation in question.

The Head Teacher’s role is very crucial. However, not all Head Teachers in Indonesia are aware of bullying. According to Frey et al. (2005), low level of awareness is one of the main factors for the existence of bullying. Therefore, this research seeks to discover how Head Teachers’ understanding of bullying affects the actions, policies and programs related to bullying prevention. In addition, this study intends to seek the types, forms, and impacts of bullying based on Head Teachers’ views and how these differ between state and private elementary schools.

The study was conducted in Lombok, in the West Nusa Tenggara context. Lombok, which is located in the east side of Indonesia, is nominated as one of the 3T areas. 3T is an acronym of terpencil (remote), terluar (outermost) and tertinggal (left behind). In addition, in this year, 2019, education in West Nusa Tenggara is ranked 33rd out of 34 provinces. Therefore, such aggressive behaviour was predicted to be extensive. As a result, the Head Teacher’s role in confronting this issue is very interest topic to be studied.

This research is expected to raise the awareness of all sampled-school Head Teachers and readers of how important it is to have in-depth knowledge about bullying. Thus, appropriate actions, policies and programs can be implemented in reducing this aggressive behaviour.

2. Literature Review

The aggressive behaviour known as bullying commenced several thousand years ago when the more developed and stronger Homo sapiens replaced the Neanderthals. Historically, bullying behaviour is an exploitation that is done by the strong to the weak, not accidentally but purposively.

Whilst bullying has been an issue for centuries, it was only through the publication of ‘Aggression in the Schools: Bullies and Whipping Boys’ Professor Dan Olweus in 1978. Olweus was the first to give focus to this issue and so to provide scientifically-approached data to the body of bullying literature. Many of Olweus’ studies explain why some children commit bullying and why others are the victims of it. Furthermore, Olweus pointed out that bullying around the world can be significantly reduced.

The results of the study by Olweus impressed many social researchers across the world. Before the 20th century ended, hundreds of similar studies had been carried out in many countries especially in Europe. The attention of research in Norway and Sweden in 1980 meant that a first ever national campaign for intervention against bullying was created. Furthermore, the study’s success gave motivation to countries such as Finland and Ireland in the Europe and Japan in Asia to consider the issue of bullying (Smith and Brain, 2000).

Japan is an example of an Asian country that has undertaken a serious study to discover expand method in omitting bullying. Ijime is a special Japanese word that is used to describe bullying. Ijime specifically refers to bullying that gives cause to trauma and, potentially, school phobia (Kawabata, 2001). Japan has also discovered a special type of bullying namely ‘shunning’ (Tanaka, 2001). It constitutes bullying where, together, a group of peers exclude the victim from their group.

In Indonesia, few people know about bullying, the main reason is that there is no special Indonesian word which refers to it. This research, therefore, intended to discover more information about bullying in Indonesia’s context, based on Head Teachers’ views.

2.1 Bullying

One of the biggest issues in Indonesia’s education is a negative behaviour which is well known as bullying. Many researchers follow the idea of Olweus (1998) in defining bullying as a negative action that is intentional and repeated (Olweus, 1978; Sullivan, 2011; Rigby, 2003; Ross, 2002; Bennett, 2009). Whilst this concept has been broadly accepted, a few researchers have sought a deeper explanation (Bennett, 2009). There is the question of whether we can refer to it as bullying if a person commits a similar negative and aggressive behaviour towards certain people just once or twice. And if an individual allows them self to suffer a similar negative behaviour from another, different person, then are they being bullied then? What if a person commits such an act just once to several different people? Is that bullying? This, it can be seen that defining bullying is problematic, as there can be a blurring between the intent and the perception of it, as well as issues in considering the power differentials that are experienced by both of the parties to a single, one-off event (Bennet, 2009).

Therefore, some researchers have also adopted the belief of Smith and Sharp (1994, p.4) who claim that bullying is ‘a systemic abuse of power’. Such an abuse was conceptualized by Rigby (2003) as being an action that may cause hurt or injury to, or at the very least threaten, a person who is less powerful. Rigby (2012) gives further explanation by noting that this may include situations in which the perpetrator is fully aware of this power imbalance, and that the victim is unlikely to be in a position to resist effectively, for example due to being outnumbered or being physically or psychologically less powerful than the bully. It seems that Rigby is looking to emphasise the concept of bullying not occurring when both parties have equal or similar power. This is a key point as, in this way, Rigby considers that different effects are likely to occur if someone is attacked or threatened repeatedly by a more powerful person, compared to if the victim and perpetrator hold equality of power.

As a result, a more complex idea comes from Storey et al. (2008) who claim bullying to be a form of emotional and/or physical abuse which involves at least three characteristics. The first one is ‘being deliberate’, where the perpetrator intends to hurt someone. The second is ‘repetition’, i.e. often the target of the bullying is the same person. And the last is ‘power imbalance’, where in this case the offender chooses the victim, he considers is susceptible. On the other hand, 20 or 30 years earlier, people considered verbal bullying to be harmless (Hazler, Hooper and Oliver, 1992). This idea was then followed by others saying that bullying should include a physical harassment

(McCudden, 2001). However, more recently, everyone now seems to believe that every type of bullying including verbal, physical and cyber bullying should not be tolerated (Rigby, 2007).

There is no clear idea on what motivates pupils to bully others. Although researchers such as Rigby (2010) have tried very hard to find motives behind bully, he found it was still very difficult to measure the desire of the bully. However, in his study he sought to conceptualize some possible reasons for bullying others. He claimed the most likely reason why people bullied others is because they felt annoyed but then satisfied after committing the bullying. Some others undertake bullying just for fun, showing their strength, getting money, dealing with jealousy and or just following the actions of others. Even though there is very little evidence that bullies felt satisfaction after bullying others, Rigby (2012) believes that there is strong evidence that the bully undertook bullying just for laughs and for showing their power. A strong piece of evidence found by Rigby is that a person undertook bullying because they were jealous of another's physical appearance or intellectual abilities.

2.2 Types of Bullying

According to Levine and Tamburrino (2014), there are two types of bullying - physical and relational aggression. For them, physical bullying typically takes place in the form of pushing, hitting or kicking, relational bullying can entail verbal, sexual or cyber bullying. Whereas as, Rivers and Smith (1994) consider aggressive behaviour has emerged in respect of three forms - physical assault (hitting, kicking and pushing); non-physical types of aggression such as verbal (shouting, verbal threats, or calling of names) and indirect (telling lies or spreading rumours about a person); and various types of cyber bullying (through the use of mobile phones, email, or social networks).

This idea is very similar to the finding of Hertinjung (2013). Conducting a research in 6 elementary schools in Indonesia, he tried to find types of bullying that potentially emerged in the pupils' years of 10 and 11. In his study, he found the three types of bullying of physical, verbal and indirect. In another study performed in a single elementary school in Indonesia, bullying appeared only in two forms, physical and verbal (Siswanti, 2009). Physical emerged in the form of hitting or pushing when fighting, kicking and throwing chalk. The verbal bullying included name calling, saying insults or threats, ignoring, and excluding from groups.

Cyber bullying has become a new form of bullying and which has increased at a dramatic pace, hand-in-hand with technological developments. It has emerged mostly in the forms of receipt of upsetting emails from a stranger, the spreading of rumours, the posting / sharing of something about others so as to ridicule them, and the posting / sharing of something which the victim would not want others to know about (Hinduja and Patchin, 2010). Cyber bullying is believed to be more severe than that of face to face (Campble, 2005). However, not a single study has found this to be appearing in elementary age schools in Indonesia. The main reason for this is that most elementary-aged children do not have access to gadgets and social media.

However, bullying might emerge as different types and forms depending on the context. As mentioned above, Japan has a form of bullying which is only found there, called 'shunning' (Tanaka, 2001). It occurs when a group of peers together neglect or ignore their victim. In

Indonesia, there is very limited literature that has looked deeply into any other type of bullying. Because Indonesia consists of thousands of islands, there might be particular types of bullying emerging in these islands due to the beliefs, religion, race or social and economic conditions in each island. Thus, this research is intended to discover whether there is any type or form of bullying that is emerging in the West Nusa Tenggara context.

Bullying also occurs not only among pupils, but also between pupils and teachers. In her study, Siswanti found that some students experienced bullying performed by teachers. There were at least 0.25% of participants who had experienced physical bullying, commonly in the form of physical punishment, and 35.8% of participants (out of 78 elementary-aged participants) who had experienced verbal bullying, such as being insulted.

From these many types and forms of bullying, there are some that occur more frequently. As claimed by Rivers and Smith (1994) and Hertanjung (2013), physical aggression is considered to be the most occurring form among boys, whilst verbal aggression is the most common form among girls in primary-aged students. Furthermore, name calling has been identified as the most frequent form of bullying among students (Rivers and Smith, 1994). Nevertheless, the most difficult to identify is that of indirect aggression, as it typically also involves a third party (Sanders and Phye, 2004).

2.3 Impact of Bullying

Bullying is one of the most serious issues that is occurring in Indonesia's education. It is a negative aggressive behaviour which has a detrimental effect. Some negative impacts that occur as a result of bullying are the reasons why bullying is not accepted by the community. The actions of bullying carried out by perpetrators towards their victims have different effects. In some cases, the bullying undertaken by someone is felt by ordinary victims, because the culprit is amongst his own peers. But some cases of bullying also have a big influence on the victims. As stated by Ken Rigby (2008), bullying can cause a strong emotional reaction of anger and sadness. Most children report that they do not feel safe from oppression at school, with that being a reason for absence from school. But there are also those who do not report the cases of bullying they experience. In terms of mental health, children involved in bullying at school are significantly below average. Victims suffer more psychologically than others, especially depression and thoughts of suicide. For children identified as bullying, they tend to behave antisocially.

Baron and Byrne (2005) argues that bullying can have damaging effects on victims. There are some cases where children who are victimized brutally and repeatedly by classmates have committed suicide. Students assume that the teacher is not aware of bullying behaviour. In addition, students report that they do not get a positive response from the teacher concerned, even if they report it, it is feared that it will increase bullying actions. The inability to deal with bullying makes students feel anxious and isolated, including isolated from environmental interactions, making it difficult to build interpersonal relationships and may be problematic in academic terms. Bullying victims experience insomnia, show signs of depression, get physically ill, have difficulty concentrating on school assignments and refuse to attend class regularly. Victims are also unable to eliminate their stigma as the target of bullying.

If we pay close attention, we can see that bullying perpetrators and victims will feel the negative impact of these actions. Even though the victim is the person who will feel the most negative impact, the perpetrators will also get the reward for the actions they did. According to Crick and Dodge (1999), bullying also has an impact on the perpetrators which is a big risk for shaping antisocial or criminal behaviour in their future. A United States government website, stopbullying.gov (2017), has warned school practitioners that the child that commits bullying is likely to portray risky conduct, such as alcohol abuse, drug taking, involvement in fights, and committing other criminal acts. In addition, they will later receive social penalties from the surrounding environment. Actors will usually be shunned by the community due to their disgraceful actions. They might be excluded from the group. Furthermore, this is strong evidence of such students being very likely to have worse academic success (Strabstein and Piazza, 2008; Al-Raqad et al., 2017). The worst impact that will be experienced by the perpetrators of bullying is the punishment that comes from a legal entity. The worst forms and consequences of bullying can cause the perpetrator to be imprisoned.

On the other hand, Sutton, Smith and Swettenham (1999) had found that bullies had a tendency to have good mind skills, using their high-level mind and social skills when seeking and intimidating their victims. However, this view was contradicted by Crick and Dodge (1999), who instead argued that bullies are in fact more likely to be lacking in social skills. Furthermore, bullying victims are proven to experience worse impacts than the bullies. The victims tend to suffer immense inner pressure which can lead to depression and anxiety (Rigby, 2003). They will often have feelings of sadness, loneliness and avoid associating with others (Smith and Brain, 2000). Therefore, they might frequently be absent from school. As a result, the academic performance of victims in schools will drop dramatically (Juvonen, Wang and Espinoza, 2011; Glew et al., 2005; Al-Raqad et al., 2017). Bullying destroys the victim's confidence and self-esteem and therefore they are very likely to feel unsure of themselves (Rigby, 2003; Nunn, 2010). If the bullying undertaken is quite severe - especially when there is physical bullying - victims can also experience health complaints. Furthermore, feeling traumatized and saddened due to being a victim of bullying also makes a victim far more vulnerable to trying to 'escape' through drug use or alcohol abuse, to increased risk of stress and suicide.

There are indications that both victims and bullies have suicidal ideation (Hinduja and Patchin, 2010). Pupils who have continuously suffered bullying and were not given appropriate support may take their own life (Ditch the Label, 2018). The British Medical Journal published a study a decade ago which indicated that 4% of boys and 8% of girls (out of 16,410 participants) and who suffered bullying at least once a week were likely to suffer severe suicidal thoughts, whereas 8% of both boys and girls who bullied others had shown suicidal thoughts (Kaltiala-Heino et al., 1999 cited in Hinduja and Patchin, 2010). In Indonesia, although bullying incidents seem to be extensive, there are still very few cases in which it has been reported as being the cause of a suicide action.

2.4 Head Teachers and Bullying

In Indonesia, the Head Teacher (or 'Principal') is a teacher who receives additional duties as a leader in a school (Sudarman, 2002). Basically, the Head Teacher is a leader who moves, influences, motivates, and directs people in organizations or educational institutions to achieve

predetermined goals. They are also the person most responsible for the implications of the innovative administration of education at school. Ekosiswoyo (2016) implicitly emphasizes that Head Teachers' duties and responsibilities concern the overall school activities. A Head Teacher must be able to mobilize school resources including technical and administrative education, across programs and across sectors by utilizing existing resources in school so that educational goals can be achieved effectively and efficiently. Thus, the role of the Head Teacher is very important in improving the quality of education.

However, as a teacher who is given additional duties, his prime duty is to teach and educate pupils. This means the Head Teacher in Indonesia has to teach in the classroom while leading, managing and controlling the school. Therefore, a Head Teacher should have decent competence and be able to lead. According to The Minister of National Education Regulation Number 6 (2018), Head Teachers should have the competency to manage the school and supervise the teachers as well as the other staff. There are 8 National Education Standards that Head Teachers in Indonesia should adhere to for developing and improving schools. These are the Graduate Competence Standard, Content Standard, Process Standard, Education and Educator Standards, Standard of Facilities and Infrastructure, Management Standards, Education Financing Standards and Educational Assessment Standards.

Graduate Competence Standards are criteria regarding the qualifications of graduates' abilities which include attitudes, knowledge and skills (Minister of Education and Culture Regulation No 20, 2016). It is widely used as a reference for other standards. A Content Standard consists of core competence involving spiritual and social values, intellect and skills (Minister of Education and Culture Regulation No 21, 2016). Standard Process is a criterion regarding the implementation of teaching and learning in elementary schools to achieve graduate competency (Minister of Education and Culture Regulation No 22, 2016). The Educational Assessment Standard is a criterion regarding the scope, objectives, benefits, principles, mechanisms, procedures and instruments for evaluating student learning outcomes that are used as a basis in evaluating those outcomes in primary and secondary education (Minister of Education and Culture Regulation No 23, 2016). Education and Educator Standard means the school should have a decent school/building, teachers, staff and pupils. The Standard of Facilities and Infrastructure stresses that every school should have sufficient accommodation. Management Standard emphasizes that schools should have a strong vision and mission, and clear goals. Education Financing Standard leads schools to have a good financial management in order to fulfil the needs of the school.

Based on the standards above, it is of course very hard to be a Head Teacher. Therefore, a Head Teacher should have good leadership skills. Head Teacher leadership skills have "very significant effects on the quality of school organization and on pupil learning" (Leithwood et al., 2008, p.5). The success of Head Teachers in managing offices, managing school infrastructure, fostering teachers, or managing other school activities is largely determined by the leadership ability of the Head Teacher. If they are able to move, guide and direct the staff members appropriately, all activities in the school's organization will be carried out effectively. Conversely, if you cannot move members effectively, you will not be able to reach your goals optimally. According to Sammons, Hillman and Mortimore (1995), there are no known examples of where a school has successfully reversed an underperforming trajectory of their school and in pupil attainment where

it did not have an appropriately talented Head Teacher. A simple reason could be that such talented leadership is able to unleash the existing potential capabilities that are within such schools.

As education leaders in schools, Head Teachers have a legal responsibility to develop staff, curriculum and regulations, and implement education in their schools. Here, the effectiveness of a Head Teachers' leadership depends on their ability to work with teachers and other staff, and their ability at budget management, staff development, scheduling, curriculum and policy development, pedagogy, and assessment.

As a leader in the schools, the other main task of Head Teachers is to create a conducive, safe, comfortable, pleasant, orderly, smooth and effective learning climate. This is pivotal to mitigate a number of problems that commonly emerge in schools, including that of bullying. Therefore, in addressing bullying, the Head Teacher's role is fundamental. It is their authority which gets transformed into being an inclusive school leader, and which then will manifest itself throughout the school, which is vital for the promotion of policies that address the power inequalities and practices which discriminate against pupils on the basis of their abilities, race or physical condition.

2.5 Programs in Addressing Bulling

Bullying is an action that can be detrimental to the perpetrators and also their victims, thus requiring preventive and handling measures. Cases of bullying are often trivialized by teachers, especially in elementary schools, as they assume that the actions taken by the student are part of the student's growth period. A teacher's ignoring of this bullying behaviour must be corrected so that the teacher must become more sensitive to the students' behaviour. Astuti and Resminingsih (2010) argue that prevention of bullying in schools can begin with creating a culture or atmosphere in schools where the students learn fearlessly, through character education, and creating a bullying prevention policy in schools by involving students, creating a school model of implementing an anti-bullying system, building up awareness among stakeholders of bullying and its prevention. Below are some programs that can be used to mitigate and tackle bullying.

2.5.1 Anti-bullying Policy

School as a place for socialization and academic development requires the responsibility of the Head Teacher, teachers and other school members to create a positive culture (having positive values embraced in it), so that this culture will also help in overcoming negative actions, one of which is bullying. This also occurs through special programs designed by schools for the tackling of bullying, one of which is an anti-bullying policy. Priyatna (2010) also revealed several anti-bullying programs that can be undertaken at school:

- a. The school should know the prevalence of bullying cases that occur, as well as anyone involved in the case, including perpetrators, victims, witnesses and their parents, so that the school has complete information about how effective school policies are in dealing with bullying that occurs in their environment.
- b. The intervention is carried out individually per class by paying attention to the benefits that will be gained for the students and the school. Schools can list suggestions for intervention strategies.

- c. The teacher should play a role not only as a facilitator and motivator in learning, but also in understanding the situation of the child so that activities carried out by children in school can be monitored.

Baron and Byrne (2005) reveal actions that are undertaken to reduce the occurrence of bullying:

- a. Children are trained to intervene rather than keep quiet when bullying occurs.
- b. The need for teacher understanding that the perpetrator and the victim both have low self-esteem, means that the teacher can then take steps to improve the child's feeling of self-worth.
- c. Bullying as a problem for all parties, namely teachers, students and parents, is not a normal part of a child's growth.
- d. In the incidents of bullying, the teacher must immediately pay attention to and oppose it clearly.
- e. Students are provided with knowledge of how to deal with bullying directly.
- f. If the teacher or school refuses to overcome the problem, then outside experts must be called in to help.

2.5.2 Whole-school Approach

Bullying is not just a school problem, rather it is also the responsibility of parents, the surrounding environment and institutions that are responsible for schools such as the Local Authority. Thus, the handling of bullying requires cooperation from various parties from all school components - Head Teachers, teachers, school committees, non-education personnel, school guards, parents, organizations in the school environment and responsible institutions. Cowie and Jennifer (2009) explained that the approach to a whole-school approach is very necessary for the success of promoting non-violence in schools. This strategy is most likely to succeed if the Head Teachers have good communication and relationships among all members of the school community and if the goals and values are communicated to all interested parties.

As an effort to overcome bullying carried out through the community, it is necessary to build an anti-bullying network involving various schools, community components and related institutions. This is as explained by the Sejiwa (2008). Community components such as the school surroundings, local authority, parents, police, community leaders, and other components can be given debriefing about the dangers and impacts of bullying, so that they can contribute to increasing public awareness of bullying in and around them, while inviting them to fight it. Through their strategic position, school leaders can invite the community component at the right time to come to the school and hold joint discussions on bullying issues. Sejiwa (2008) said in building networks in and around schools, the school leaders should encourage all involved parties in the schools including teachers, parents and students to move against bullying. The role of the teacher can be started by commencing the practice of peer support, which is to appoint a number of students who have the potential to become friends to assist their friends who are at risk of being bullied and need assistance. But there is also a need for clear rules regarding peer support so that it can play a good role. Wali Kelas, the teacher who has the responsibility to control and manage the class, should have the ability to provide counselling to the students who need help, including overcoming those involved in bullying. This is very important because the Wali Kelas is the closest person to students at school. In addition, in the whole-school approach, the role of parents is needed in inviting neighbours and fellow parents to establish a shared attitude towards bullying in the

surrounding environment. If one person detects bullying behaviour, the whole community can explicitly and wisely take steps without worrying about attacking the private spaces of certain families (Sejiwa, 2008).

Tables and Figures

Table 1: Schedule of data collection

Name of participants	Contacting the participant, giving information sheet, explaining the objectives of the study, signing the consent form and arranging the interview schedule	Semi-structured interview date
Head Teacher 1	13 June 2019	18 June 2019
Head Teacher 2	14 June 2019	19 June 2019
Head Teacher 3	15 June 2019	20 June 2019
Head Teacher 4	13 June 2019	17 June 2019
Head Teacher 5	14 June 2019	14 July 2019
Head Teacher 6	15 June 2019	15 July 2019

3. Discussion and Conclusion

3.1 Head Teachers' understanding of Bullying

In addressing bullying, it is very necessary for every Head Teacher to understand the definition, types and impact of bullying. Thus, in that way, they can at least influence, train and educate their staff and pupils to work together in tackling bullying. By giving training to the staff, it will bring confidence, knowledge and skill to educate pupils about the impact of bullying. By educating pupils, it will make them understand the value of diversity, the difference between a joke and behaviour that can hurt others, and the dangers of bullying. Finally, if Head Teachers and staff understand bullying well, they will continuously and consistently work against and challenge any form of aggressive behaviour including aggressive language and prejudice (Ofsted, 2012).

However, the analysis of the findings has shown that Head Teachers in all the sampled schools have very limited ideas about bullying. None of the sampled Head Teachers could give a definition of what bullying can constitute, and in terms of the types as well as effects of bullying. This conclusion answered the first research question. There were two prime reasons behind this. First, the term 'bullying' was found to be a strange word for the participants. Second, they have never attended any seminar or training about bullying. Therefore, all participants asked me to explain what it meant.

3.2 Types, Forms and Impacts of Bullying

After giving a brief explanation about the definition of bullying, I then explained to them the common forms and types in which it occurred, and its impact. I found this to be important, as it thereby enabled the Head Teachers to give appropriate examples of bullying that had occurred within their schools.

Bullying, in this study, was found to be consisting of two types - physical and verbal. This answered the second research question. The form of physical bullying that occurs in the sampled schools is kicking, tackling, hitting, pushing, biting, head-butting, throwing of balls and pulling clothes. Whereas the verbal bullying was found to include intimidating, ridiculing, name calling

such as saying 'foke' (stupid) to pupils who have low academic competence, calling out at others based on their physical appearance such as badug (fat or obese), jendok (runny nose), and pesek (flat nose), referring to others as the names of animals such as dogs, pigs and monkeys, insulting their victims by calling them by the 'name' of their parents or guardians, calling them by rude words such as bajingan (bastard), sundel (bitch), and ubek (whore). This verbal bullying was found to occur the most. This was also argued by Rivers and Smith 25 years ago, who claimed that verbal aggressive behaviour happened more often than others forms (1994). This present study's findings are also very similar to the study conducted by Ismiatun (2014). Performing a research in a single elementary school in Yogyakarta, Indonesia, she found that bullying was only detected as two types - verbal and physical. Regarding the current research, the sampled Head Teachers found it very difficult to identify examples of indirect bullying, indeed none of them could state any such examples. This finding accords with research conducted by Sanders and Phye (2004), which stated that indirect aggression is arguably the most difficult type of bullying to uncover due to it will normally have an involvement of a third party. Finally, although cyber bullying was found to be growing very fast, this type of bullying was not discovered in any of the sampled schools. Given that it involves mobile phones and social media, it was found not to be occurring due, primarily, to the fact that pupils in these schools did not have access to these.

The impacts of bullying are essential to know, both in respect of the victims and the bullies. Before asking questions about the impact that bullying can have on pupils, I explained to all participants what the experts in this field had found out about this. The victims are the one who are impacted the most. If pupils are bullied continuously, they may become afraid of others, become introvert, have low self-esteem, be absent from school, feel excluded, experience anxiety and have low academic performance (Rigby, 2003; Nunn, 2010; Glew et al., 2005; Al-Raqqad et al., 2017). Furthermore, strong evidence suggests that victims are very much at risk of suicidal thoughts when they intensively bullied and lack in appropriate assistance and care (Hinduja and Patchin, 2010; Ditch the Label, 2018). Although the present study found no evidence that pupils have this suicidal ideation in the sampled schools, it did discover other impacts. Victims cried, experienced anxiety, had low self-esteem, were introvert and lonely, afraid of the bully and, therefore, had absence from school or wanted to completely leave the school.

In addition to explaining and considering the effects of bullying in respect of the victim, effects potentially experience by the bully were also addressed. Bullies are very likely to be involved in violence, get excluded from school, and be at a high risk of committing illegal acts when they enter their adulthood (stopbullying.gov, 2017; Rigby, 2003). Bullies are found to be likely to be involved in fights, abuse alcohol and drugs, leave university before graduating, commit crimes and enact abusive behaviour towards their partners (stopbullying.gov, 2017).

However, unlike these findings of previous research, these negative effects on the bully were not found to have been occurring in the sampled schools of the present study. Rather, it was found that the bullies felt happy, satisfied and superior after bullying others. The worst effect that could befall bullies was their being banned from coming to school for a couple of days. No bullies were excluded. The reason given was that schools needed pupils to secure their funding from the government. In Indonesia, the amount of funding that the school receives is dependent on the number of pupils. Other effects were not detected because Head Teachers did not have access to

their alumni. So, they did not know whether the bullying had affected the bullies into their adulthood.

3.3 Head Teachers' Actions, Policies and Programs in Tackling Bullying

Due to the limitation of Head Teachers' understanding about bullying, direct appropriate actions and policies were not found in all the sampled-school. Therefore, bullying incidents, especially verbal ones, were found to be very extensive. The participants did not realize that verbal bullying is a serious issue that also needs to be tackled. This finding is very similar to the research conducted by Hazler, Hoover and Oliver 27 years ago, when he found that many educators assumed that verbal bullying is normal and harmless (1992).

Although such conscious actions and programs have never been employed in the sampled schools, the research found some programs that indirectly reduce the amount of negative aggressive behaviour. Programs such as 30 minutes of praying and reading Al-Quran before entering the class, and weekly 'IMTAQ' as well as subjects such as PKWN, PAI, Aqidah Ahlaq and Qur'an Hadist were found to be very effective in promoting good behaviour. Such promoting of good behaviour is considered as a better prevention program in reducing negative behaviour (Sherer and Nickerson, 2010; Battistich, 2005; Cross et al., 2011). Sherer and Nickerson (2010) state that the promotion of positive behaviour, school-wide, is a particularly effective and often cited strategy for reducing the incidents of bullying. Similarly, Battistich (2005) comments that a pursuit of improving the quality of person's character through education is likely to succeed in developing good characters, as well as having the potential for addressing and preventing a wider range of society's contemporary problems. Cross et al. (2011) have emphasised that such an approach is a key element for reducing the extent of misconduct, especially that of physical bullying.

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Islamic Perspectives on Personality Disorders: Guidelines for Working with a Muslim Client

Nabisah Ibrahim^{1*}, Noor Azizah Ahmad¹

¹ School of Applied Psychology, Social Work, and Policy, Universiti Utara Malaysia, Malaysia

*Corresponding Author: nabisah275@gmail.com

Abstract: *With the significant growth of the Muslim population and the prevalence of personality disorders around the world, there has been an increasing need to understand how Muslims view personality disorders and how they deal with these mental health issues. This paper aims to discuss the concept of personality and personality disorders based on two different lenses: the Western and Islamic perspectives. Discussions on the Islamic faith that may be incorporated into the helping professionals' services provided for this specific population and recommendations for practitioners are also included.*

Keywords: Personality Disorder, Western perspectives, Islamic perspectives

1. Introduction

Personality refers to the ways a person thinks, feels, and behaves, that are influenced by experiences, environment, life situations, and characteristics inherited from previous generations. A person's personality usually remains the same over time and it is a component that distinguishes one individual from another. Based on the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5), "the essential features of a personality disorder are impairments in personality (self and interpersonal) functioning and the presence of pathological personality traits" (American Psychiatric Association, 2013, p. 98). Those with personality disorders will show ways of thinking, expressing feelings, and behaviors that deviate from the expectations of the culture and it causes difficulties or problems to function in daily life and this situation persists over time (American Psychiatric Association, 2020).

Issues on personality disorders have been discussed since the eighteenth century when formerly people regarded them as character disorders (Crocq, 2013; Millon & Davis, 1996). The issues, however, have become more common as the number of people diagnosed with personality disorders increases over the centuries. Based on a total of 46 studies conducted from 21 different countries, the prevalence of any kind of personality disorders was 7.8% where the rates were found higher in high-income countries (9.6%) as compared to the lower-income countries (4.3%) (Winsper, Bilgin, Thompson, Marwaha, Chanen, Singh, Wang, Furtado, 2020). In the United States, for example, about 9.1% of the adult population has been diagnosed with one or more personality disorders and 28.8% of those cases are classified as severe (National Institute of Mental Health (2020). Even though the prevalence of personality disorders has been reported low among other populations as compared to the American population, these differences are not because of the low existence of personality disorder cases in other populations, but it is due more to a lack of

understanding of what constitutes personality disorders in other cultural contexts (Ryder, Sun, Dere, & Fung, 2014). Therefore, there is a need to understand what constitutes personality disorders from other perspectives, especially from the Islamic perspective.

Islam is the second-largest religion in the world, after Christianity, with over two billion followers (World Population Review, 2020). Even though there is much research out there discussing Muslim mental illness issues (e.g. Jamil, 2020; Hawi, Osborne, Bulbulia, & Sibley, 2019; Lowe, Tineo, & Young, 2019), this fastest-growing population is not free from personality disorders. The current research shows that higher rates of personality disorders are seen among the Muslim population across the world, especially after the September 11, 2001 attack (Buzdar, Haq Tariq, Jalal, & Nadeem, 2019). Even though the number of personality disorder cases has been rising across religions (Caldwell-Harris, Wilson, LoTempio, & Beit-Hallahmi, 2011), the number of Muslim clients who seek counseling services is still low (Abu-Ras & Abu-Bader, 2008; Amri & Bemak, 2013; Brown, & West, 2020; Cook-Masaud, & Wiggins, 2011). They feel more reluctant to seek help because issues related to mental illnesses are still regarded as a taboo that should only be discussed with an immediate family member and not with outsiders (Khaja & Frederick, 2008). Getting Muslim clients to talk about their mental illness concerns or having them to fill out forms that indicate symptoms of mental illness is not an easy task to do unless the helping professionals (e.g. counselors, social workers, psychiatrist) really understand how Muslims' view and perceive the issues of personality disorders.

There are many research studies about the relationship between religion and different aspects of personality (Francis, 2010; Nofal, 1997; Smither & Khordsandi, 2009), but few studies have focused on Muslims' views on personality disorders. In addition, few studies conducted on the Muslim population have found that many Muslims are hesitant to seek help from mental health professionals because of differences in their beliefs and a lack of understanding of the Islamic values incorporated in the treatment modalities (Alhomaizi, Alsaidi, Moalie, Muradwij, Borba, & Lincoln, 2017; Hedayat-Diba, 2000; Hodge, 200; Sabry & Vohra, 2013). Therefore, the purpose of this paper is to discuss Muslims' perspectives and views on personality disorders and how they deal with this issue. Comparisons with the Western perspectives will be included in order to assist helping professionals especially the non-Muslim helping professionals to analyze the similarities and differences held by both standpoints. It is hoped that this paper will not only aid in helping professionals to understand their Muslim clients better but also equip the former with the knowledge of a multicultural perspective of personality disorders. A brief discussion on the concept of human personality from the two different lenses will precede the detailed discussion on the Muslims' view of personality disorders and the treatment used by this population.

2. Human Personality from Western Perspectives

The Psychoanalytic Theory suggests that personality is largely influenced by the unconscious part of human nature, which occurs outside of our awareness. Freud (1920, 1923) believed that personality consists of three structures; id, ego, and superego, which are interrelated with each other and resulted in a combination that produces individual uniqueness. The humanistic explanation of personality focuses on the positive sides of people. Carl Rogers asserted that people are good and what makes them different from each other is how much they are able to display their goodness (Rogers, 1977). Behaviorism, on the other flip, explains personality as a product of

learning. People are shaped by what they have learned to behave, and the learning process can be direct or indirect by observing and imitating other's behavior. Behaviorists do not focus on the inner person and they were criticized for such negligence (Henry & Cumming, 2019; Sharf, 2008).

From the standpoint of Cognitive behaviorists, they propagate that biological and social factors are important factors contributing to the individual's personality development and personality disturbance. It is believed that individuals have inborn tendencies to react to events in certain patterns, regardless of the environmental factors that may affect the events, by damning themselves and others when they do not get what they want. Personality is learned through how people perceive the world and their interaction with the world (Ellis & Harper, 1975; Peck & Whitlow, 2019). Personality is also defined as an identity. For Erick Erickson, identity is a special sense people feel about who they are. Identity develops in eight stages and the most important stage is the identity versus role confusion stage. This stage can be resolved by going through an identity crisis and coming out of the psychosocial moratorium time (time of making decisions) with a strong set of commitments to work, values, family, and friends, in order to become identity achievers (Henry & Cumming, 2019; Sharf, 2008).

3. Human Personality from Islamic Perspectives

In Islam, personality includes three main components: (a) *nafs* (psyche), (b) *qalb* (heart), and (c) *'aql* (mind). *Nafs* or the human psyche can be divided into three different levels known as the *al-nafs al-ammarah bi al-su'*, *al-nafs al-lawwamah*, and *al-nafs al-mutma'innah*. According to Al-Ghazali, *al-nafs al-ammarah bi al-su'* is the lowest level of the soul known as "the soul that enjoins evils". The lowest level of the soul is an agent of man's destruction and is altogether blameworthy. Humans who fall under this level of the soul will always protest and surrender themselves to the call of evil passions. This lowest level of the soul does not consider any moral aspects of life and aims to fulfill the desires and seek pleasure in ways that are even prohibited by Allah, the Almighty God. *Al-nafs al-lawwamah* or "the self-reproaching soul" is categorized as the second level of the soul. Humans who fall into this level are usually struggling with their desires and may experience some levels of guilt when they fail to fight the temptations and the calls of evil passion that come from their *nafs al-ammarah bi al-su'*. They may struggle to achieve a completely calm state and reach the highest level of the soul that is *al-nafs al-mutma'innah*. *Al-nafs al-mutma'innah* is the soul that is submissive to the command of God. It is free from worldly passions and is effectively put "the soul at rest". Humans who are able to reach this level of the soul may experience and easily come to a calm and tranquil state of life (Malik, 2018; Mat Akhir, 2008).

The second component of the Muslim personality is known as *qalb* or the heart. *Qalb* has a dual nature, which includes the physical and spiritual attributes of the heart. One of the Muslim scholars - Al-Ghazali - believed that although the spiritual heart is different from the physiological heart, they are always interrelated with one another in creating the individual's personality. While the physical heart acts as a vehicle of the human body, the spiritual heart acts as the cognitive faculty of a human being (Mat Akhir, 2008). Besides the dual nature component, *qalb* also contains "the deepest spiritual wisdom of individual" (Smither & Khorsandi, 2009, p. 87). It is believed that those who have a pure *qalb* will have good characteristics such as being calm, tranquil, patient, and assertive, while those who have a sinful *qalb* will easily show anxiety, stress, lack of confidence, and anger that can affect their behavior (Deuraseh & Abu Talib, 2005).

The third component of the human personality is *'aql*. *'Aql* refers to the mind and the intellectual aspect of man. Al-Ghazali (as stated in Nofal, 1993), believed that *'aql* is the place from where knowledge develops, and it is the component that differentiates human beings from animals. This component helps human beings becoming aware of themselves, their environment, and the interaction between both. *'Aql* also helps human beings understand the concept of God and their relationship with the Supreme Power. Islam believes that all the three components of human personality (*nafs*, *qalb*, and *'aql*) are interrelated with each other and they influence both humans' physical and mental health (Mat Akhir, 2008).

4. Personality Disorders: Western vs Islamic Perspectives

In discussing the meaning of personality disorders, western psychologists and scholars have differentiated it from the normal problems of life depending on how serious the problems are and how often they occur. A personality disorder occurs when the personality traits are so maladaptive that they interfere with a person's ability to adjust to many different social and personal situations. According to the American Psychiatric Association (2020), if the maladaptive traits are consistently occurring, the person is considered as having a personality disorder. Through the psychoanalytic lens, Freud believed that personality disorders such as hysteria, anxiety, and borderline disorders are the results of extreme frustration, and aggression that children experience before the age of four (Freud, 1920; Freud, 1923). From the perspective of a behavioral psychologist, personality disorders are considered as maladaptive behaviors learned by the individual through non-functional responses towards the environmental stimulus (Sharf, 2008; Peck & Whitlow, 2019).

Personality disorders may also occur as a result of learning difficulties, deficits in social skills, and poor social role models (Perry & Flannery, as mentioned in Lyddon & Sherry, 2001). As a cognitive-behaviorist who emphasizes the importance of rational thinking, Albert Ellis mentioned that "neurosis behavior that lies in most of the personality disorders is caused by the inappropriate, self-destructive emotion, such as the feeling of severe anger, depression, guilt, or anxiety that result from one's conscious or unconscious prejudices, childish, senseless ideas that usually lead to inefficient self-sabotaging behaviors" (Ellis & Harper, 1975, p. 65).

As compared to the Western perspectives of personality disorders, Muslims have a wide range of beliefs about the concept of mental illness. It is believed that personality disorders are among the diseases of the soul, which occur when people fail to balance their components of the body and the soul. If the body gets sick, the *nafs* will become weak and lose their cognitive and comprehensive ability to enjoy life and in return will weaken the body to enjoy life and may eventually create physical and mental illness (Al-Bakhi, as stated in Deuraseh & Abu Talib, 2005). Some Muslims believes that personality disorders are also regarded as a form of punishment for an individual's wrongdoing (Khaja & Frederick, 2008). When Muslims continuously commit sins, they can easily fall into the lowest level of *nafs* or soul (*al-nafs al-ammaraah bi al-su*) that will cause them the feeling of guilt, anger, and sorrow (Nofal, 1993). Muslims who are holding on to this belief may take passive action in dealing with their illness. They may not tell others about their personality disorder symptoms because they do not want others to know and relate it with their wrongdoings or their weak level of the soul.

Muslims also believe that personality disorders are regarded as a part of a trial or divine test from God. For those who go through that suffering stage with patience, devotion, and faithfulness to Allah's command, the rewards will be greater. In addition, some groups of traditional Muslims may associate symptoms of personality disorders with a devil's possession of that mentally ill person. It is believed that when the mentally ill person experiences hallucinations, delusions, or any other symptoms of depression and anxiety, they are actually being possessed by the devil spirit. Based on the survey conducted by Abu-Ras and Abu-Bader (2008) on the perceptions of Muslims towards mental illness, they reported that 98% of their Muslim respondents perceived mental illness as a life stressor given by God as a divine test for them and 84% of the respondents believed that it can also be caused by a devil's possession of that mentally ill person.

5. Types of Personality Disorders from Islamic Perspectives

In Islam, personality disorders are divided into, (a) *al-huzn*, (b) *al-'ujb*, (c) *was-was*, and (d) *su' al-zhan*. One of the most common personality disorders experienced by Muslims is *al-huzn* (feeling of extreme sadness), which can be divided into two different types. The first type of *al-huzn* refers to the feeling of sadness or depression due to clearly known reasons. This type of depression is caused by the loss of a loved one, loss of personal belongings, or the failure of getting what one wishes to get. The second type of *al-huzn* refers to the extreme feeling of sadness or depression for unknown reasons. Individuals may experience a sudden, persistent feeling of extreme sadness that prevents their system from functioning properly. Al-Bakhi (as stated in Deuraseh & Khorsandi, 2005), mentioned that this type of personality disorder is caused by bodily symptoms for example a brain injury or an impurity in the blood condition. This type of depression is closely related to the problem of internal bodily functions and requires certain types of medication.

'Ujb is another type of personality disorder and it shares some of the symptoms of narcissistic personality disorder classified under cluster B in the DSM-5. *'Ujb* refers to the feeling of pride and an extreme feeling of self-perfection. It is the feeling of exaggeration of one's virtues and good deeds, their overestimation and satisfaction with them, accompanied with a sense of superiority on their account (Ahmed, 2012). Muslims believe that the individual who has *'Ujb* will always consider him or herself as superior to others, and regard him or herself as better than other human beings. Muslims who have this disorder will consider themselves to be more pious and see others as imperfect and insignificant beings (Hassan, 1983). According to Al-Ghazali, *'Ujb* will direct man to the evil part and can be resistant to knowledge and practices (Hasan, 1983). It is caused by the ignorance of man on the actual Power and the Oneness of God. They believe that their successful life totally comes from their own effort and ignore the role of God in it. They sometimes look down on others and show little empathy to them.

The third personality disorder identified in the Muslim culture is *was-was*. *Was-was* shares some symptoms explained in obsessive-compulsive personality disorder classified under Cluster C in the DSM-5. People who are suffering from this disorder always have difficulty performing their duties. They might be so particular about a specific way of cleanliness, washing hands, wearing clothes, and doing their works. In Islam, the term "*was was*" refers to the sickness of the soul which is caused by the whispering and temptations of evil that always stimulate human desires to gain worldly satisfaction which finally makes them forget about the truth. This disease of the soul

always makes the owners feel doubtful especially in performing their duties to God (Hasan, 1983). Allah The Al-Mighty says, “*It was We who created man, and We know what dark suggestions his soul makes to him. We are nearer to him than his jugular vein*” (*al-Quran, 50:16*). In the Quran, the word man refers to all human beings, which includes both men and women. If individuals are unable to fight those temptations, they will become uncertain in their actions especially in performing the *Ibadah* (worship) such as uncertainty in making ablution and performing the *raka’at* (series of movement performed) in prayers. Muslim who has *was-was* will be unable to concentrate on his or her actions and usually has doubt to perform it. Therefore, Islam always encourages Muslims to avoid *was-was* in their practices especially in *Tawhid* (asserting oneness of Allah) and *Aqidah* (beliefs in Islam) by making *du’a* (prayer) to Allah so that they can be protected from evil whispers and temptations. Allah The Al-Mighty says, “*Say: I seek refuge with the Lord and Cherisher of Mankind, the King of Mankind, the God of Mankind, from the mischief of the Whisperer (of Evil), who withdraws (after his whisper), the same who whispers into the heart of Mankind, among Jinns and among Men*” (*al-Quran, 114:1-6*). Besides, Muslims should get closer to Allah through *zikr*, recommended prayers, and other *ibadah*. Besides *was-was*, *su’u al-zhan* is also considered as a part of soul disease. It shares some of the characteristics of paranoid personality disorder classified under Cluster B in the DSM-5. Individual with *su’u al-zhan* tends to feel suspicious of others, overly sensitive to criticisms and interprets others’ behavior as deliberately threatening and demeaning. They also like to think negatively towards others and assume that people are all bad and cannot be trusted (Hasan, 1983).

6. Treatment of Personality Disorders from Islamic Perspectives

Among the treatment modalities suggested by Muslim scholars to treat mental illnesses is to combine both the spiritual and medical treatments depending on the level of severity of the mental illness. According to Al-Bakhi (as stated in Deuraseh & Khorsandi, 2005), internal and external therapies can be used to help individuals who experienced *al-huzn*. The external therapy includes persuasive talking, preaching, and advising that can help the individuals strengthen their souls. Internal therapy involves a process of helping individuals change their inner thoughts and cognitions, which can help them to put away their depressive thoughts and feelings. This technique is quite similar to the Rational Emotive Behavior Therapy (REBT) techniques introduced by Albert Ellis, where he emphasized changing and modifying the individual’s irrational beliefs.

Another treatment suggested by Muslim scholars is to use psychological methods that can strengthen the soul or psyche power. In Islamic practice, listening to Quranic verses and reciting *zikr* could create a peaceful environment and a pleasant feeling. Those feelings could refresh and beautify the human soul and at the same time produce a state of calmness and tranquility (Al-Ghazali, n.d.). This method is similar to music therapy used by ancient Greek scholars in treating diseases of the soul a long time ago, and that has been applied in counseling treatment since the nineteenth century. In Western practices, music therapy has been used to treat women with addiction disorders (Howards, 1997), and emotional, learning, and behavioral disorders (Montello & Coons, 1998).

Although different diseases of the soul will require different types of treatment, Muslim scholars apply some general principles to treat all of these diseases. It is believed that most people with personality disorders or diseases of the soul are not aware of their own maladaptive behaviors and

thoughts. Therefore, in Islam, religious talks, and prayers to Allah is always used in order to help Muslim patients becoming aware of their maladaptive behaviors and thoughts. Besides that, fasting is also used in treating the disease of the soul or mental illness. In Arabic, fasting is called *al-saum* (الصوم). It is considered as “an intrinsic path to a healthy inner peaceful heart” (Khaja & Fredrick, 2008). During the whole month of *Ramadhan* (the 9th month in the Islamic calendar), all adult Muslims are made compulsory to perform fasting.

In Islam, fasting is a bit different from the common diet practices. To perform the act of fasting, Muslims will wake up early in the morning for *sahur* (pre-dawn breakfast) and they will fast from sunrise to sunset by not taking any food and drink during the day. At the end of the day (at sunset), fasting is considered complete with Muslims being allowed to eat as usual. Among the salient benefits of fasting for Muslims are: (i) to improve physical and mental health, (ii) to foster the intelligence to think more wisely and rational, (iii) to encourage humbleness of the soul, (iv) to increase the level of empathy towards others who are poor, and last but not least is (v) to develop a tender heart that does not easily succumb to temptations (Amin & Abdelmageed, 2020; Khan, Nor, Mamat, Mohd-Shukri, & Bakar, 2018). For these reasons, many Muslims choose to fast even outside the month of *Ramadhan* so they can purify their souls and cleanse their hearts. Besides, Muslims are encouraged by the Prophet Muhammad (peace be upon him) to perform the act of fasting every Monday and Thursday, as well as on other holy days during the month of *Muharram*, *Rajab*, *Sha'aban*, *Shawal*, and *Dhul Hijjah*.

7. Conclusion and Recommendations for Helping Professionals

In Islam, total submission to Allah is certainly seen as the key in the helping process. This concept cannot be ignored in working with Muslim clients and it can be used to encourage them to change and improve themselves. This is in line with the foundation of all Muslim practices which is built on the belief that Allah the All-Mighty will always help those who do not give up and work hard to improve themselves and be a better person. In treating people with *'Ujb*, the helping professionals (e.g. counselors, social workers, psychiatrists) are encouraged to make their Muslim clients realize that there is no one on this earth who can completely be perfect and can fulfill the demands of Allah without making any mistakes. As human beings, it is important to recognize that every single person on this earth has their own strengths and weaknesses. Being perfect and seeing oneself as totally superior is irrational. In addition, helping professionals are also encouraged to confront and challenge their Muslim clients' harmful behaviors and irrational thoughts of being superior because there is no other power that is more superior to the power of Allah's The All-Mighty.

Knowing about how much Muslims value the emphasis on the mind, body, and soul in explaining and treating personality disorders would be beneficial for helping professionals to apply mental health treatments that incorporate these three aspects. In working with Muslim clients, this can be done by exploring the client's religious belief and practices and how important is the place of their religion to them. However, it is encouraged for the helping professionals to let the Muslim clients share their Islamic beliefs, culture, and practices before developing a treatment plan. This is because Muslims from different cultural and ethnic backgrounds would share the same Islamic knowledge on *Tauhid* and *Aqidah* but may have different interpretations of the Islamic law related to the performance of *Ibadah* and other religious obligations. It is essential to acknowledge that in

Islam, there are four *Mazhab* (schools of law), known as the *Mazhab* Syafie, Maliki, Hanafi, and Hanbali, which become the main sources of the Islamic law that govern and regulate all aspects of a Muslim's public and private life. Therefore, it is important for helping professionals to explore more about the client's religious beliefs and practices before helping them with their mental health issues, specifically on treating personality disorders. This paper only explained the Islamic perspectives on personality disorders as a unified belief system and did not consider the implications of the differences in ethnic and culture within the Muslim population. Hence, further discussions on how religious beliefs in specific Muslim populations affect their view on personality disorders can be conducted in order to fulfill the limitations of this paper.

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Nutritive Analysis of Blue Ternate (*Clitoria ternatea* L.) Flowers and Seeds

Lorelyn Joy N. Turnos^{1*}

¹ University of Southern Mindanao, Kabacan, Cotabato, Philippines

*Corresponding Author: lturnos@usm.edu.ph

Abstract: *The mineral composition of a plant is one of the criteria used in evaluating the potential of a certain crop for any medicinal purposes and other health benefits. Determining the mineral elements as well as their concentrations in plants is very important because these information can be used and considered when subjecting the crop for human consumption and when used as one of the ingredients in by-products. Clitoria ternatea L., commonly known as blue ternate and butterfly pea, contains good source of anthocyanin. This study was conducted to assess mineral and nutritional values of the flowers and seeds of Clitoria. This was conducted at University of Southern Mindanao (USM), Kabacan, Cotabato, Philippines from January to June 2020. Flowers of three species of Clitoria, namely: blue double-, blue-single- and white single-layered varieties were evaluated and resulted in higher amount of N, P, K, Ca, Mg, ash content and dry matter on the blue-single-layered variety. Proximate analyses of the Clitoria seeds were also available: carbohydrates (36.69%), total sugars (4.92%), crude fat (12.26%), crude protein (40.59%) and sodium (76.29 µg/g).*

Keywords: blue ternate, *Clitoria*, nutritional analysis

1. Introduction

Clitoria ternatea L. is an ornamental perennial climber with conspicuous blue or white flowers, and it is commonly called 'blue ternate' and 'butterfly pea'. The flowers of this crop has almost similar shape of the human female genitals; hence, its Genus name *Clitoria* is derived from clitoris. As a highly palatable forage legume, the crop is generally preferred by livestock over other legumes. As cited in various published articles, *Clitoria* is known as a medicinal plant and is known to treat various diseases. Almost all parts of this plant are reported to have medicinal properties.

Clitoria covers 60 species in which majority are found in the tropical belt. There are still few species which are existing in temperate areas. Among these species, *Clitoria ternatea* is the most frequently reported. It is cultivated throughout India but is naturalized in the more tropical regions (Agarwal et al., 2007). *Clitoria purpurea* has dark blue colored papilionaceous flowers and *Clitoria ternatea* has creamy white colored flowers which are solitary and very attractive (Lijon et al., 2017). Blue and white-flowered morphotypes are commonly found in India. Occurrence of double blue and violet flower morphotypes (Matthew and Ninan, 1989), faint blue flower plants (Gandhi and Patil, 1993), and plants with five broad petals (Khan et al., 1996) have been reported. Komaraiah and Rao (2010) observed that blue flower morphotype produced larger flowers, and

heavier leaves and pods compared to white flower morphotype. White flower morphotype exhibited broader range of values for all the parameters than blue flower.

Knowledge on the mineral elements which are present in plants is necessary because the concentration and the type of mineral elements present in plants play a very significant role against a variety of degenerative diseases. There are minerals (e.g. Phosphorus, Potassium, Calcium and Sodium) which are known to be essential to a healthy diet; while some minerals (e.g. Lead, Cadmium, Mercury and Aluminum) can be toxic (Gopalan et al., 2004).

In this study, three species of *Clitoria ternatea*, specifically the single- and double-layered blue petals, and the white single-layered petal varieties, were evaluated for the nutrient analysis of the flowers, in addition to the proximate analysis of the seeds of the double-layered blue *Clitoria*. This study was conducted from January to June 2020 at the University of Southern Mindanao (USM), Kabacan, Cotabato. Mineral/nutrient analysis was done at the Central Laboratory, University of Southern Mindanao Agricultural Research Center (USMARC), USM, Kabacan, Cotabato, Philippines and private laboratories (Davao Analytical Laboratory Inc. and University of Immaculate Conception) in Davao City, Philippines.

2. Literature Review

Proximate and Mineral Analyses

Flowers. Heavy metal contents (below 0.0001 mg/100 g) in blue ternate flowers, specifically cadmium and arsenic do not exceed the limit set by Codex (1995) which are 4.00 mg/100 g and 0.05 mg/100 g, respectively. In addition, lead (less than 0.2 mg/kg) and nickel 150 µg/day/men are within the acceptable range (National Standard of China on Maximum Levels of Contaminants in Food, 2005; Food Standards Australia New Zealand, 2003).

Leaves. Blue ternate leaves contain 74.51% moisture and 14.99% protein constituents. Other components are ash (8.73±0.22%), crude fiber (8.45±0.05%), fat (5.50±0.10%) and carbohydrate (0.08±0.00%). Leaf crude fiber (21.5 to 29.0%) and crude protein (21.5%) and total plant protein ranges from 14 to 20% (Kalamani and Gomez, 2001).

Seeds. Seeds are composed of 25 to 38% protein, 10% oil and 5% total sugar. The range of nitrogen concentration of whole tops is 1.7 to 4.0% and amino acid composition as percentage of crude protein in seed. Protein content of the seed according to Kalamani and Gomez (2003) is 15 to 25%.

Chemical Composition and Analysis

Flavonoids, ternatins, anthocyanins, alkaloids, taraxerol, saponins, tannins and taraxerone are the major constituents found in blue ternate. Using spectroscopy, 14 types of flavonol glycosides were identified (Kazuma et al., 2003): quercetin 3-(2Grhamnosylrutinoside), kaempferol 3-(2Grhamnosyl-rutinoside), myricetin 3-rutinoside, kaempferol 3glucoside, quercetin 3-glucoside, myricetin 3-glucoside, kaempferol 3-neohesperidoside, quercetin 3-neohesperidoside, myricetin 3neohesperidoside, kaempferol 3-rutinoside, quercetin 3rutinoside, kaempferol 3-O-(2"-O-α-rhamnosyl-6"-O-malonyl)-βglucoside, quercetin 3-O-(2"-O-α-rhamnosyl-6"-Omalonyl)-βglucoside and myricetin 3-O-(2"-O-αrhamnosyl-6"-O-malonyl)-βglucoside. In addition, quercetin

3-glucoside, kaempferol 3-glucoside, and myricetin 3-glucoside compounds are also identified (Slimestad et al., 1995).

C. ternatea contains flavonoids, such as quercetin, kaempferol, robinin and clitorin. It also contains starch, tannin, resin and anthocyanins and several glycosides including malvidin-3- β -glucoside, dephinidin-3- β -glycoside (Srivastava and Pande, 1977). There are 13 novel anthocyanins identified in blue ternate (Terahara et al., 1990; Kazuma et al., 2003). Petals of *Clitoria ternatea* L. contain good source of anthocyanin (Terehara et al., 1990). According to Uma (2009), phytochemicals found from blue ternate roots are ternatins, alkaloids, flavonoids, saponins, tannins, carbohydrates, proteins, resin, starch, taraxerol and taraxerone.

Pentacyclic triterpenoids such as taraxerol and taraxerone are the main phytoconstituents which are found in blue ternate. Ethanol extract shows presence of flavonoid, terpenoid, steroid and tannin which are acting as antioxidant (Rai, 2010). Based on phytochemical screening, carbohydrates, proteins, ternatins, flavonoids, saponins, tannins, resins, alkaloids, starch, taraxerol and taraxerone are also present in the roots (Trease and Evans, 1983). ‘Finotin’ protein has been isolated from the seeds of blue ternate and reported to have pesticidal properties (antibacterial, insecticidal and anti-fungal) (Kelemu et al., 2004).

Results on the physico-chemical and phytochemical studies revealed that White variety of *Clitoria* has high ash value but low acid insoluble ash depicted comparatively high level of carbonates, phosphates and low level of silicates and silica content (Khatoon et al., 2015). The high concentration of polar compounds in White variety is shown by high value of water and alcohol extractive percentage. These values are important quantitative standards and are significant in evaluating the purity and authenticity of drugs.

Mahala et al. (2012) studied the nutritive value of *C. ternatea* and recorded the following results: P (0.4%), K (18.75), Ca (1.2%), Mg (6.9%) and Na (1.1%). Kapoor and Purohit (2013) also evaluated mineral contents of *C. ternatea* and revealed data of some macro-elements such as P ($0.44 \pm 0.14\%$), K ($0.78 \pm 0.69\%$), Ca ($1.01 \pm 0.06\%$) and Na ($0.94 \pm 0.67\%$).

The preliminary phytochemical screening showed presence of steroid, flavonoids, alkaloid, carbohydrates, glycosides, tannins and saponins in blue and white varieties. White variety gave better results for flavonoid, alkaloid, carbohydrate and glycosides while Blue variety for tannins and saponins. Khatoon et al. (2015) concluded that *C. ternatea* white variety being a nerve tonic in traditional systems of medicine has a potential to develop neuroprotective drug. The study provided the scientific data for the proper identification and establishment of standards for the varieties of *Clitoria* and blue variety may be a substitute of white variety with less therapeutic activity.

3. Discussion and Conclusion

Collection and Preparation of Plant Materials for Mineral/Nutrient Analysis

Clitoria flowers subjected for nutritional analysis were collected at the same time in February 2020. The collected materials which were about 2 kgs per variety were placed in polyethylene bags to prevent moisture loss during transport to the laboratory. The samples were washed with distilled

water thoroughly until no extraneous material remained. These were blotted dry until the excess moisture was removed, air dried and weighed to obtain fresh weight. The samples were packed into air-tight sample bottles and were brought to Davao Analytical Laboratories, Inc., Davao City, Philippines and Central Laboratory at USMARC, USM, Kabacan, Cotabato, Philippines for the nutrient analysis.

Moreover, the seeds of double-layered Blue-colored *Clitoria* variety was evaluated for proximate analysis. Two-kg seed of *Clitoria* was subjected for the analysis in the University of Immaculate Conception, Davao City, Philippines.

Nitrogen analysis was done through Kjeldahl method which determined the nitrogen contained in organic substances and inorganic compounds ammonia and ammonium. Phosphorus content was run using Ultraviolet-Visible (UV-VIS) spectrophotometry which measured the intensity of light after passing through a sample and compared it to the intensity of light before it passes through the sample. For potassium, calcium, sodium and magnesium contents, evaluation was done by Atomic Absorption Spectroscopy which quantified the absorption of ground state atoms in the gaseous state. The ash content was measured by Gravimetric method.

Nutritive Analysis of *Clitoria* Flowers

Nitrogen

Table 1 presents the nutritive value of the flowers of the three *Clitoria* varieties. Data revealed that nitrogen composition is higher in Blue-single *Clitoria* variety with 4.10%, followed by Blue-double and White-single varieties with respective means of 3.70 and 3.20%. According to Plant Analysis Handbook for Georgia (PAHG, 1989), majority of the plants has a critical N level of 3%. In some crops, N level of lower than 2.75% results in yield quality reduction. In the case of legumes such as soybeans, peanuts, alfalfa, etc., the critical N ranges from 3 to 4.25%.

Table 1: Nutritive values of flowers of three *Clitoria* varieties. University of Southern Mindanao, Kabacan, Cotabato, Philippines. 2020.

Parameters	<i>Clitoria</i> varieties		
	Blue double	Blue single	White single
Nitrogen (%)	3.70	4.10	3.20
Phosphorus (%)	0.30	0.48	0.29
Potassium (%)	2.03	2.08	1.97
Calcium (%)	1.60	2.00	1.90
Magnesium (%)	0.25	0.29	0.24
Sodium (%)	0.15	0.12	0.14
Ash content	7.40	8.30	4.20
Dry matter (%)	91.35	92.36	91.97
pH	4.18	4.32	4.34
TSS (°Brix)	4.00	4.00	4.00

In general, human beings and other species on earth require a ‘fixed’ reactive form of nitrogen (Goyal, 2017). Aside from the fact that nitrogen is essential as a major component of chlorophyll, this element is also a major component of amino acids which are the building blocks of proteins

which could influence the growth, hormones, brain functions and immune system. Nitrogen per se cannot be utilized by human beings through respiration and can be absorbed by consuming plants or animals that have also consumed nitrogen-rich vegetations.

Phosphorus

In terms of the phosphorus (P) composition, results revealed higher content in Blue-single variety with (0.48%), followed by Blue-double (0.30%) and White-single (0.29%). Analysis was done by Ultraviolet/Visible (UV/Vis) Spectrophotometer. Based on the data of PAHG (1989), the critical values of legume and vegetable crops ranged from 0.25 to 0.30% or slightly higher (PAHG, 1989).

Being the body's second most abundant mineral, wherein one percent of the total body weight of a person is made up of phosphorus, among its important role is on how the body uses fats and carbohydrates. The phosphorus is an essential aide to make proteins which are important for growth, maintenance and repair of cells and tissues, as well as in the formation of bones and teeth.

Potassium

Potassium (K) level of *Clitoria* flowers was determined using Atomic Absorption Spectroscopy (AAS). The analysis showed that Blue-single variety had higher K content (2.08%), followed by Blue-double and White single with 2.03 and 1.97%, respectively. Critical K value in legumes is between 1.75 and 2.0% (PAHG, 1989).

Tissue analysis in the study of Neda et al. (2013) revealed that flowers of blue ternate had the following mineral value: 1.25-mg/g potassium, 3.09 mg/g calcium, 2.23 mg/g magnesium, 0.14 mg/g sodium, 0.01 mg/g copper, 0.02 mg/g manganese, 0.14 mg/g iron, and 0.59 mg/g zinc.

Potassium (K) has a major role in the cell's normal functioning. Among the responsibilities of this mineral include heartbeat regulation, proper functioning of nerves and muscles, protein synthesis and metabolizing carbohydrates. According to Siddhuraju et al. (2001), diets of people can utilize high content of potassium, particularly those who are taking diuretics for hypertension control and those suffering from potassium excretion through body fluid.

Calcium

Percentage calcium (Ca) content was observed higher in Blue-single variety (2.00%), than White-single (1.90%) and Blue-double (1.60%) varieties; test was ran using AAS. The critical Ca concentration of soybean's mature leaves is 0.50%, while for peanuts is 1.25% (PAHG, 1989).

Calcium is vital for the formation of healthy and strong bones and teeth, skeletal development and blood clotting (Forbes, 2012). Both magnesium and calcium are necessary for skeletal development growth and other body's vital processes.

Magnesium

The contents of magnesium (Mg) in *Clitoria* flowers were: Blue-single (0.29%), Blue-double (0.25%), and White-single variety (0.24%). AAS was used to determine Mg level. According to PAHG (1989), majority of the plants have deficiency of Mg when the level of Mg in the leaves is

less than 0.10 to 0.15%. In addition, critical level of Mg in legumes such as soybeans and peanuts is 0.25 to 0.30%.

Magnesium plays a role in aiding in the functions of nerves and muscles, blood pressure regulation, and immune system support (Medical News Today, 2020). A wide range of chronic diseases are usually associated with reduced levels of magnesium. This mineral plays important therapeutic and preventive role in various conditions including bronchial asthma, diabetes, preeclampsia, migraine osteoporosis, and cardiovascular diseases (Alawi et al., 2018).

Sodium

Sodium (Na) contents of the flowers of *Clitoria* ranged from 0.12 to 0.15% with Blue-double variety as the highest. The analysis was done by AAS. Most of the foodstuffs has Na content, for instance of common salt. Too much intake of sodium can cause kidney damage and promotes increase of blood pressure (Constantin and Alexandru, 2011).

Ash Content

The ash content, representing the inorganic part, of *Clitoria* flowers was evaluated using Gravimetric method. Higher ash content was noted in Blue-single variety with 8.30%, followed by Blue-double and White-single varieties with 7.40 and 4.20%, respectively.

According to Kadam and Patil (2013), ash composition and amount which remain after plant material combustion is dependent on the part and age of the plant and other treatments. Momin and Kadam(2011) studied the ash content of *Sesbania grandiflora*, locally known as katuray, which was used as medicinal plant. The comparative account of total ash, water soluble and insoluble ash content of *Sesbania* bark showed high level of total ash ranging from 11.80 to 12.10% and low level of total ash of leaves of *S. cannabina* which ranges from 5.05 to 5.35%.

Dry Matter, pH and TSS

Dry matter composition of *Clitoria* flowers was high with Blue-single variety (92.36%). This was followed by White-single variety with 91.97% and Blue-double with 91.35%. The dry matter component which includes the nutrient concentration in plant material is a function of the nutrient uptake rate and accumulation of dry mass.

The pH of *Clitoria* flowers ranged from 4.18 to 4.34, the White variety had the highest while the Blue-double obtained the lowest. The study of Miller and Levine (2003) concluded that the acidic or basic nature of a liquid is necessary in determining the uses of the liquid. Identifying the pH value of certain products is important because there are some substances which need to meet certain levels to allow the living organisms survive (e.g. stomach acids require specific pH in order to work properly).

°Brix value refers to the measurement of the soluble solids content of a solution. In this study, the flowers of all varieties of *Clitoria* resulted in a TSS or °Brix of 4.0. In fruit and vegetable juices, sugars are the most abundant soluble solid and are significantly influenced by genetic and management factors. Sugar content of a product correlates more strongly on the sweetness than its nutritional properties (Kleinhenz and Bumgarner, 2013).

There were previous research studies which performed mineral and proximate composition analysis of *Clitoria*. Study of Neda et al. (2013) evaluated the proximate, mineral, heavy metal composition of blue-colored *Clitoria* flowers, while Ezzudin and Rabeta (2018) focused on specific mineral content of the flowers, specifically calcium, magnesium and potassium. Moreover, Neda et al. (2013) compared the bromatological properties of the leaves of both blue- and white-colored *Clitoria*.

Proximate Analysis of *Clitoria* Seeds

Primary metabolites, such as sugars, proteins, lipids, starch and ash, are essentially required for plant growth. Many primary metabolites lie in their impact as precursors or pharmacologically active metabolites in of pharmaceutical compounds such as antipsychotic drug. The presence of higher protein level in a plant indicates the possibility to isolate protein base bioactive compound for the production of protein base drugs besides the food value (Freeze, 1998).

In proximate analysis of *Clitoria* seeds, the parameters determined were carbohydrates (36.69%), total sugar (4.92%), crude fat (12.26%), crude protein (40.59%) and sodium content (76.29 µg/g).

Table 2: Proximate analysis of the seeds of Blue-colored double-layered *Clitoria*. University of Southern Mindanao, Kabacan, Cotabato, Philippines. 2020.

Parameters	<i>Clitoria</i> seeds
Carbohydrates, kcal/100g	419.00
Carbohydrates (%)	36.69
Total Sugars (%)	4.92
Crude Fat (%)	12.26
Crude Protein (%)	40.59
Sodium (µg/g)	76.29

Summary of the Results

In terms of nutritional contents of the *Clitoria* flowers of Blue-single, Blue-double and White-single varieties, the flowers of Blue single variety had numerically higher amount of N, P, K, Ca, Mg, ash content and dry matter. Proximate analyses of the blue-double *Clitoria* seeds were revealed: carbohydrates (36.69%), total sugars (4.92%), crude fat (12.26%), crude protein (40.59%) and sodium (76.29 µg/g).

Conclusion and Recommendation

Results of the study revealed that the flowers of different species of *Clitoria* also contain variation on the concentration and amount of minerals and nutrients. Since the study was limited only to a particular nutrient which was analyzed, evaluation of the proximate and mineral analysis on a broader and wider parameters is recommended.

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Performance of Undergraduate Students in Project and Construction Management Course as One of the Requirements to Fulfill the Accreditation Standard: A Case Study on Civil Engineering Students in UiTM Sarawak, Malaysia

Noor Azland Jainudin^{1*}, Iskanda Openg¹, Amir Nazaruddin¹, Jamil Matarul¹,
Maureen Neging¹

¹ Faculty of Civil Engineering, 94300, UiTM Sarawak, Sarawak, Malaysia

*Corresponding Author: azland8558@gmail.com

Abstract: *Project and Construction Management is one of the compulsory courses for the Diploma in Civil Engineering students in Universiti Teknologi MARA (UiTM). This course is very important to the students prior to their involvement in the construction industry upon graduation. The outcomes of the course are to ensure the students will be able to explain the knowledge of the engineering management skills in the construction industry and develop the pre-activities in the construction. This research paper is conducted to assess the performance of civil engineering students who study the project and construction management course in UiTM Sarawak. The evaluation has been analyzed based on the previous 3 semesters which are the results for the examination of July 2018, January 2019 and July 2019. A total of 209 students had their performance measured in this study. The findings of the study showed that, the performance of the students related to psychomotor domains obtained 100% passing rate since last 3 semesters. Meanwhile, the performance in cognitive domain ranges between 82 - 92% passing rate. This indicates that the performance of civil engineering students is excellent in conducting Microsoft Project and Autocad Software in their project (psychomotor domain). However, the knowledge of the engineering management skills in the construction industry (cognitive domain) needs some improvement as the average achievement on cognitive is just 55% - 60%.*

Keywords: Performance, construction management, cognitive, psychomotor, affective

1. Introduction

Project and Construction Management course for the third year engineering students in UiTM Sarawak provides the basic knowledge on the management of construction projects prior to and during construction stage. The course will be an introduction to the students on the working environment of the construction industry and the basic of project management concepts. Higher institutions responsible for developing undergraduate students adequately prepare future construction managers in the construction industry [1]. Construction course is designed to ensure students capable the task efficiently in the construction industry [2].

By the end of the course, students are expected to understand the knowledge of the engineering management skills in the construction industry. Currently, the demand for the construction management among the students is on the rise [3]. Furthermore, the objectives of this course to

ensure the students are able to conduct investigation related to construction activities with implementation of good management practices. At the same time, the students in Diploma of Civil Engineering will be able to demonstrate knowledge or engineering management skills [1].

These students also will undergo industrial training attachment in their final semester for 18 weeks as required by Engineering Technology Accreditation Council (ETAC), a body which is delegated by Board of Engineers Malaysia (BEM) for accreditation of engineering technology degrees. This attachment serves as an exposure in engineering practice which provides first-hand experience in an engineering-practice environment. Familiarity with all common engineering technology processes is essential and training at a practical level to a wide variety of processes is required at a level appropriate to the students [4]. Whilst it is clearly desirable for students to be properly trained for the skills involved, the central aim is to acquire craft skills (psychomotor).

Nowadays, some universities provide classes to help students learn “soft skills,” including emotional intelligence [5,6]. Clearly, many of the latest processes and large scale or costly operations can only be the subject of observation or demonstration, and visits to engineering works may be helpful and in many cases, it is a key component of learning (cognitive) in an integrated academic curriculum. Engineering Technology Accreditation Council [4]. The challenge arises as educators as the institute of higher learning need to prepare engineering graduates for the working environment, where the graduates are expected to know and able to perform or attain by the time of graduation.

In preparing the engineering students for the working environment in the construction industry, approach was taken in Project and Construction Management course to measure the attainment of the students on the understanding of the engineering management skills in the construction industry. The students also be able to investigate related to construction activities with implementation of good management practices which reflect the programmed outcome statements in the ETAC accreditation standard and Ministry of Higher Education Blueprint 2015-2025 [7].

These attainments were assessed through examination (cognitive), project (psychomotor) and assignment (affective). The assessment task is either individual or group work. This information is important to lecturers and to the development of project and management course [8].

2. Attainment Based on Grades

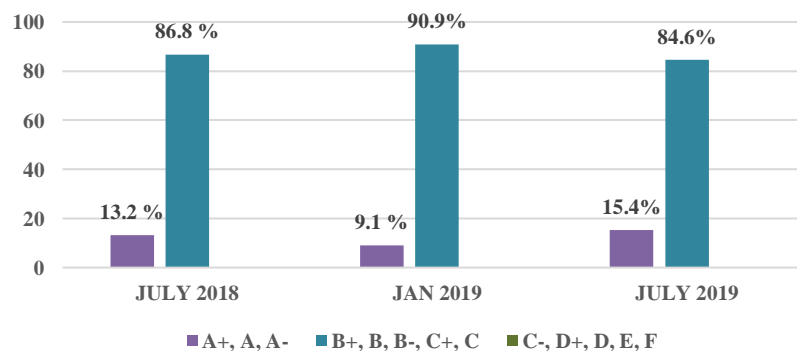


Figure 1: Attainment of Project & Construction Management course based on grade (%)

Table 1: Number of students based on grades

SESSION	NO. OF STUDENTS (GRADES)			TOTAL
	A+, A, A-	B+, B, B-, C+, C	C-, D+, D, E, F	
JULY 2018	15	99	0	114
JANUARY 2019	1	10	0	11
JULY 2019	14	77	0	91

Figure 1 shows the percentage of student’s achievement based on grade. The findings show that (based on previous 3 semesters), none of the students failed every semester since July 2018 until July 2019. Grading C and above is a pass. More than 80% of the students achieved grade B+, B, B-, C+ and C. Every semester, around 9% to 15% of the students achieved excellence in their results (grade A-, A and A+). These results indicate that 100% of the students achieved the passing grade which are grades C and above. The highest performance of the students is indicated in the July 2019 examination in which 15.4% students achieved grades A+, A and A- (14 out of 91 students). For the examination in January 2019, only 9.1% students achieved excellence in their examination.

3. Overall Attainment Based on Grades

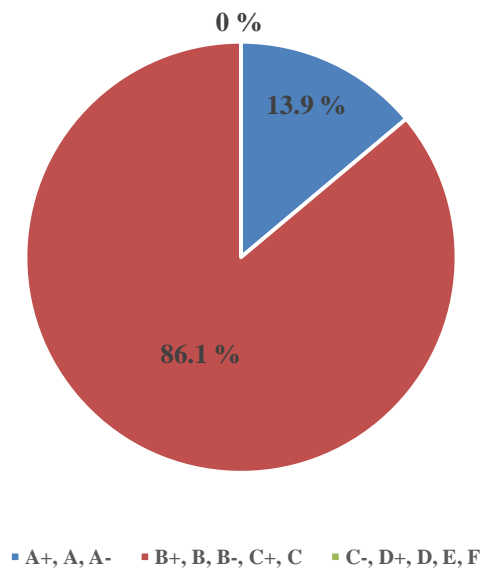


Figure 2: Overall performance of the course based on grades (%)

Figure 2 shows the overall performance of Project and Construction Management course based on previous three semesters (examination July 2018, January 2019 & July 2019). The results show that none of the students failed this course. This indicated that, 100% Diploma of Civil Engineering students understand the basic knowledge of the engineering management skills in the construction industry. Based on previous three semesters examination, 13.9% of students attained grade A-, A and A+ (excellent in their result). Meanwhile, 86.1% of students achieved the satisfactory level (grade C and above).

4. Performance on Cognitive, Psychomotor & Affective

Project and Construction Management course has 3 outcomes that need to be attained by every student. These outcomes are measured in terms of cognitive, psychomotor and affective domains. The cognitive, psychomotor and affective are measured in examination, project and presentation respectively. The assessments of the course are 40% to be evaluated for both exam (cognitive) and project (psychomotor) and another 20% to be evaluated in presentation (affective).

The average achievement on cognitive, psychomotor and affective domain is shown in Figure 3. In terms of cognitive performance, more than 55% students achieved in terms of cognitive performance based on previous 3 semesters (July 2018, January 2019 and July 2019). 60% has the highest achievement in July 2019. This indicates that, most of the students are able to justify knowledge of the engineering management skills in the construction industry.

The figure shows that, more than 70% of the average achievement on psychomotor domain. This indicates that, majority of the students of Diploma in Civil Engineering are able to construct investigation related to construction activities with implementation of good management practices. This psychomotor domain is assessed in project assessment which include the evaluation of the performance of the students in Microsoft Project and AutoCad.

In terms of affective domain, the average achievements are 71.9%, 76% and 73% in July 2018, January 2019 and July 2019 respectively. Most of the students are able to demonstrate knowledge or engineering management skills in task related to construction. This domain is evaluated in presentation or assignment.

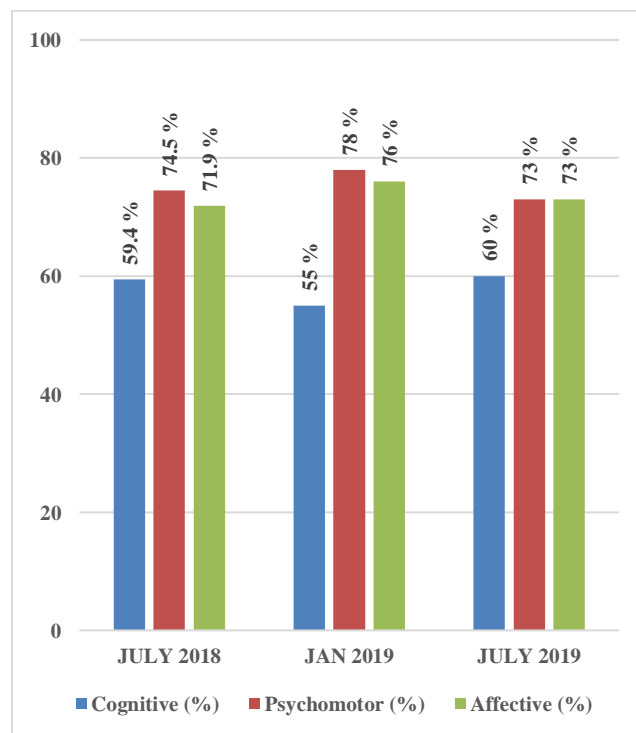


Figure 3: The average achievement on Cognitive, Psychomotor & Affective (%)

5. Percentage Passes

Figure 4 shows the percentage passes on cognitive, psychomotor and affective based on previous 3 semesters. The findings show that the percentage passes on affective and psychomotor domain achieved 100% every semester. All students were achieved more than 50% of each affective and psychomotor domain. This indicated that, the students be able to apply Microsoft Project and Auto Cad in the project assessment.

The results show that, the students' performance in terms of cognitive domain is at excellent level. Cognitive domain measured in examination assessment. The finding shows that, the pass percentage every semester achieved is more than 80%. The highest performance is in July 2019, 92% of the students achieved more than 50% (pass). This shows that, the students of Diploma in Civil Engineering are able to justify knowledge of the engineering management skills in the construction industry.

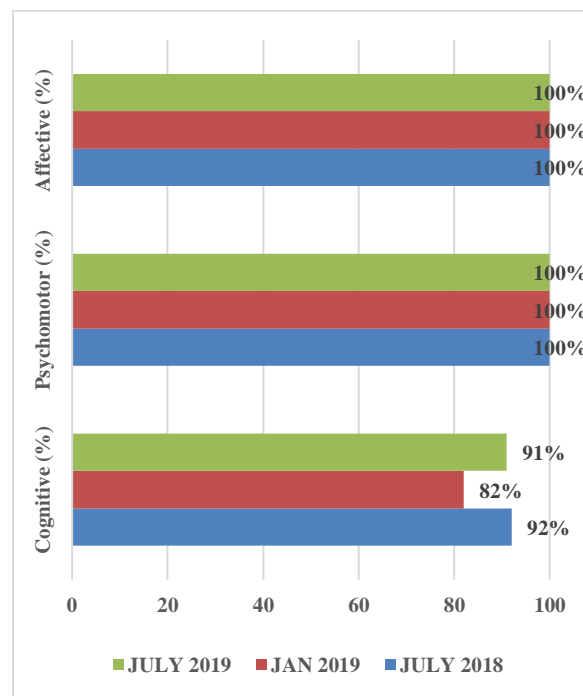


Figure 4: The percentage of passes on Cognitive, Psychomotor & Affective

Conclusion

Generally, the performance of students of Diploma in Civil Engineering, UiTM Sarawak in project and management course in terms of psychomotor and affective domain is considered excellent. The percentage passes for both domains were achieved 100% since July 2018 until July 2019. It can be concluded that the civil engineering students are able to conduct investigation related to construction activities with implementation of good management practices during construction. Furthermore, the students are good in demonstrating knowledge or project management skills.

However, the knowledge of the engineering management skills in the construction industry needs some improvement as the average achievement on cognitive domain shows a satisfactory score of

55% to 60%. The outcomes from this study also give some information to the lecturers in identifying the performance and knowledge of the civil engineering students in project and management course.

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Personal Branding Forming Factors in Influence on the Entrepreneurial Orientation of Television Artists Who Have Youtube Channels

Mohamad Hadi Prasetyo^{1*}

¹ Management Study Program, Ekuitas Business School, Bandung, Indonesia
Student of Doctoral of Economic Study Program, Parahyangan Catholic University, Bandung, Indonesia

*Corresponding Author: hadi.p@ekuitas.ac.id

Abstract: *Every human being has a brand that is inherent in him. Personal Branding is like an aura that comes out in a person. Other people will see it and then they will perceive who someone is in their minds. Entrepreneurship is a process of applying creativity and innovation to solve and seek opportunities from problems faced by everyone in everyday life. Nowadays, it is seen that the use of increasingly sophisticated communication technology is making big changes to human communication itself. One of the reasons for this is new media. Youtube can be said as a new media. Youtube is a website that can share videos. Youtube is flexible because it can be watched anywhere, anytime and by anyone via a smartphone, tablet or computer. An important focus here is that many television artists in Indonesia have turned to YouTubers. They migrated from conventional TV to the digital realm because they thought there was something important and promising. after they migrate, they are required to become entrepreneurs. They manage their own management, manage content creativity, future content innovation, and how to attract sponsors for their ad-sense revenue. In general, the purpose of this study is to synthesize the factors forming personal branding and entrepreneurial orientation. more importantly, first determine the personal branding forming factors in accordance with the object of research. The research started with a preliminary survey in the form of observations of real phenomena and events. After that, the research design and descriptive study were carried out which in the end will be formulated in this paper.*

Keywords: personal brand, entrepreneur orientation, youtube

1. Introduction

A person who has an entrepreneurial spirit and attitude is always dissatisfied with what he has achieved. From time to time, always looking for opportunities to improve capabilities in life. A person is always creative and innovating without stopping, because by creating and innovating all opportunities can be obtained. An entrepreneur can be said to be someone who is skilled at taking advantage of opportunities in developing what he has with the aim of improving the quality of his life. In essence, all people are entrepreneurs in the sense that they are able to stand alone in carrying out their business and work in order to achieve their personal goals, their families, communities, nation and country.

Every human being has a brand that is inherent in him. The brand that is inherent in a person is a reflection of a name they have. It is called a personal brand. A personal brand is also known as a reputation that reflects the values within oneself which indicators are attached to the person. So it can be said that personal brand refers to the perception of other people seeing us. Positive Personal Branding is needed by every human being. However, not all humans have good Personal Branding. Having good personal branding is a key to achieving success. Personal branding that radiates from every human being, can be positive or negative depending on how the person wants to present it.

In today's digital era, technology is developing so rapidly. All the time, new technologies emerge. Likewise with communication technology. Communication technology that helps humans communicate. At this stage, it can be seen that the use of increasingly sophisticated communication technology is making big changes to human communication itself. One of the reasons for this is new media. New Media is a media that uses the internet, technology-based online media, has a flexible character, has the potential to be interactive and can function privately or publicly (Mondry, 2008). One example of new media is Youtube. Therefore, in the digital era, perception is important. Especially in a digital era like this, value indicators in humans are becoming increasingly important and relevant. We can be who we want to be and show others, this is the power of a personal brand. In this case, the personal brand is important in facing competition. Being famous or in this case as the forefront is important in order to gain an advantage in the midst of fierce competition. Because sometimes market demand leads to differences. If you are able to make a difference and have significant environmental benefits, you will be successful in the competition you face.

Youtube is flexible because it can be watched anywhere, anytime and by anyone via a smartphone, tablet or PC. Youtube can be said to be a broadcasting medium in modern times because its appearance has reduced the audience for conventional broadcast media such as television. In comparison, the number of television viewers in America has decreased and is only dominated by the elderly, while teenagers are only 32% and adults are 23%. One of the reasons is because they prefer to watch online videos such as YouTube, which causes them to be lazy to watch television. Because by watching YouTube they feel the flexibility of the many kinds of programs.

This phenomenon also occurs in the country of Indonesia. There are many reasons why people prefer to watch YouTube over TV or other conventional media. Youtube gives you the freedom to choose a show theme, be it entertainment or education. Generally the videos on the Youtube site are video clips, TV shows, films and videos made by the users themselves. This YouTube phenomenon has also led to new jobs called youtubers. Youtubers are people who create content which is then displayed on YouTube. Due to the magnitude of this phenomenon, new ideals have emerged in the alpha generation which is the digital native generation. If in the past children were asked about their aspirations to become what they want to be, the answer is Pilot, Doctor, Teacher, Astronaut, soldier, etc. Currently, many children answer Youtubers. Youtube is a place to create new popularity with the aim of getting an advantage. The benefits obtained on YouTube can be in the form of popularity or even additional income with easy access and earning. Because of its popularity, usually it will invite sponsors or endorsements of fairly large value.

An important focus here is that many television artists in Indonesia have turned to YouTubers. They migrated from conventional media to digital media, because they saw something important and promising. This is because YouTube can be accessed anywhere and anytime. In addition, they are generally well-known by many people and many people watch YouTube, finally they think of using Youtube as an online medium to earn money, especially from adsense. In YouTube, it is usually known as google adsense. Google Adsense is a joint advertising program through the Internet media hosted by Google. This means that YouTube also monetizes the content created.

It is undeniable that Youtuber can be embedded as someone who works independently or in groups to share videos and earn money from adsense or sponsors or endorsers, and goes viral from videos uploaded on Youtube. Finally, there was adsense, which became the source of the artist's income from YouTube, namely the cost of advertising that appeared on their content and from the number of subscribers to their channel. besides adsense, these artists also receive sponsors or product endorsements that will appear on their channel, finally it can be seen that there is a promising income here. Here, we can see the shift of change that previously these artists only relied on the manager who sold them to conventional platforms and the artist was just reading the script or brief like before the TV show started. With YouTube, the artist is actually required to become an entrepreneur. They manage their own management, manage content creativity, future content innovation, and how to attract sponsors for their adsense revenue. They have their own management that also thinks about how to get sponsorships. It can be seen here that every artist must have a personal brand which will be associated with his entrepreneurial orientation

2. Literature Review

A brand in a product cannot be separated, therefore anyone who has a brand must carry out the concept of branding as a means of communicating their products to the market. Brand is a name, term, sign, symbol, or design or a combination of them (American Marketing Association in Kotler and Keller, 2016). Individual is a product that has a brand. Brand is also defined as a name that is in a product. When someone has a brand, in the end that person will carry out promotional activities about themselves. Because the person is a product and certainly has a value inherent in the brand on the product, branding activities will be carried out by yourself. Not everyone can do personal branding successfully. If someone fails in personal branding, it is not impossible that that person cannot develop because they have not optimized what they have.

In this case, branding can be interpreted as an effort so that the brand attached to a product is still remembered by consumers because of its differentiation element. Branding is one of the activities in marketing, and branding activities aim to influence (Montoya & Vandehey, 2009). Branding changes the way people think because it changes perceptions about a product or service or someone where it builds value (Montoya & Vandehey, 2002; 2009; Beals, 2008) and social value in terms of relationships (Clifton & Simmons, 2003). Brand is a relationship and not just a statement (McNally & Speak, 2003). From this meaning, it can be seen that a brand is something that has an identity and can be developed. As in the context of a company, a brand that is inherent in humans must have a clear identity. The importance of branding is now not only a company issue because branding is also needed for the formation of trust in people per person (Centeno et al., 2019).

The concept of branding on products can also be applied within oneself. Because in fact, humans are a product that has a brand. This concept is called personal branding. Personal branding reflects that humans are a brand and they can shape this by several factors. A personal brand is a promise from oneself that is reflected as self-worth (Philbrick & Cleveland, 2015). Personal branding is a marketing concept related to the marketing strategy that a person adopts to promote their personal characteristics (Zarkada, 2012). Personal brand is defined as a process. Personal branding is a strategic process (Montoya & Vandehey, 2002) which is applied in humans as a planned process in which a person makes an effort to market himself (Kheder, 2014). Personal branding is a strategic process (Montoya & Vandehey, 2002) in carrying out business activities. In this case, humans do not really become commodities (even though many definitions say this), but the point is the hopes of the humans themselves (Zakarda, 2012). Hope that is meant is the hope to stand out in business. The goal is to be recognized and also a unique feeling and worthy of attention, the hope of finding meaning that is happening now (Zakarda, 2012). Personal Branding is like an aura that comes out in a person. Other people will see it and then they will perceive who someone is in their minds. Therefore, personal branding can be measured by several factors according to several researchers. This means that the factors here are factors that can measure the formation of personal branding in a person. From several factors put forward by some experts, it can also be explored more deeply about the subject of their research related to factors that affect personal branding, meaning that there are differences in seeing a research subject that results in differences in measuring factors. This can be seen as a distinct interest in looking at a subject in their research. Below is a table of some of the measuring factors associated with the subjects in their study.

Table 1: Forming Factors of Personal Branding with the Object of Research

No.	Author (year)	Forming Factors	Object of Research
1	Montoya & vandehey (2002)	<i>Specialization, Leadership, Personality, Distinctiveness, Visibility, Unity (authenticity), Persistence, Goodwill</i>	Some of the most popular public figures such as Whitney Houston, Michael Jordan, Oprah Winfrey, and politicians
2	McNally dan Speak (2003)	<i>Specialization, Personality, Distinctiveness, Visibility, authenticity, Goodwill, Competence, Style, Standard</i>	Public figure in terms of artist, business man, social activist (philanthropist)
3	Rampersad (2009)	<i>Specialization, Leadership, Personality, Distinctiveness, Visibility, authenticity</i>	Bill Gates, Oprah Winfrey, Albert Einstein, Mahatma Gandhi, Barack Obama
4	Vosloban (2014)	<i>Specialization, Leadership, Personality, Distinctiveness, Visibility, authenticity,</i>	Employees who compete for promotions
5	Kheder (2014)	<i>Specialization, Persistence</i>	Profesional (middle or top management)
6	Gander (2014)	<i>Specialization, Personality, authenticity</i>	Profesional (business man, top leader)_
7	Philbrick and Cleveland (2015)	<i>Specialization, Personality</i>	Profesional (employee)
8	Johson (2017)	<i>Specialization, Persistence</i>	Student
9	Centeno, et al (2019)	<i>Specialization, Leadership</i>	SME Owner & Manager

10	Labrecque, et al (2011)	<i>Personality, Visibility,</i>	The classified Facebook users are students, fashion designers, artists, photographers, models, teachers, managers, graphic designers
11	Harris dan Rae (2011)	<i>Personality, Distinctiveness, Persistence, Goodwill</i>	employee
12	Tarnovskaya (2017)	<i>Personality</i>	YouTubers who have at least 1 million subscribers and active on YouTube for at least 3 years.
13	Ternès, et al (2014)	<i>Distinctiveness, authenticity</i>	Artist
14	Kucharska dan Mikołajczak (2018)	<i>Distinctiveness</i>	Artist and art-designer
15	Thompson-Whiteside, et al (2018)	<i>authenticity</i>	Female entrepreneur

Based on the table, many have taken examples in the application of their personal branding, namely public figures and professionals with their respective professions. But it is clear that some of the previous studies on personal branding were studies that led to the discussion of the variables themselves that were not associated with other variables. This is where this research will try to describe the factors that form personal branding by relating it to the entrepreneurial orientation of the public figures.

Entrepreneurship comes from French, namely *entreprende* which means to do (to under take), in the sense of carrying out activities to organize and organize (Antoni, 2014). Saragih (2017) entrepreneurship is a creative and innovative ability, is keen to see opportunities and is always open to any positive input and changes that are able to bring business growth. Suryana (2013) entrepreneurship is a process of applying creativity and innovation to solve and seek opportunities for problems faced by everyone in everyday life. Based on these two definitions, it can be seen that the pillars of entrepreneurship are creativity and innovation. Entrepreneurial Orientation can be seen as the process of making entrepreneurial strategies used by key decision makers to enact their company's organizational goals, maintain their vision, and create a competitive advantage (Rauch et al., 2009). Entrepreneurial Orientation construction is rooted in the work (Miller in Kadam et al., 2019), which was further developed by Covin and Slevin in Kadam et al. (2019), it is concluded that operating Entrepreneurial Orientation as a uni-dimensional construction with three dimensions: innovation, proactivity and risk taking. someone who has an Entrepreneurial Orientation is likely to be successful in a small business because it represents the ability to meet a changing market and manage risk (Dess et al., 2011). Entrepreneurial Orientation also helps a small business to overcome the limitations associated with developing their strategic orientation. Especially when this is a new normal. In addition, small businesses with an entrepreneurial orientation can engage in environmentally stable practices in developing countries (Roxas et al., 2017). This study tries to connect the concept of personal branding in a business context. In this case, that is entrepreneurial orientation. This is considered important so that it can be used as a reference that the importance of personal branding has implications for creating benefits in a business context.

3. Discussion and Conclusion

In this study, the object is television artists in Indonesia who have a YouTube channel in the study of the factors that form personal branding in relation to entrepreneurial orientation. The method used in this research is a qualitative descriptive study. The qualitative descriptive study in this research is based on the literature review conducted during the past year. So in general, the purpose of this study is to synthesize personal branding with entrepreneurial orientation. Where previously, we sought first what are the factors forming the right personal branding to make a model in relation to entrepreneurial orientation. The research started with a preliminary survey in the form of observations of real phenomena and events. After that, the research design and descriptive study were carried out which in the end would be formulated in the research report.

Youtube is a digital media that is very well known in various circles in Indonesia. It is easy to upload and access a video with various themes for various groups, even only uploading videos with still images, only sound, can be found on this platform. Of the various types of social media, Youtube is the most played one, especially for playing music. According to the "We Are Social" survey in 2018, each user has an average of 11 social media accounts, surfing around three hours per day. In research conducted by Google on May 9 2018 to study the use of Youtube in Indonesia, the increased interest and diversity in this audience is very beneficial for content creators from Indonesia (Praditya, 2018). Furthermore, added by Veronica Utami as Head of Marketing for Google Indonesia, Indonesians are more interested and feel proud of local video creators who are able to interact in a language that is easy to understand and in accordance with the interests of the audience. The number of Indonesian creators who have earned the Gold Play Button (an award that YouTube gives to creators with more than one million subscribers) has increased rapidly in recent years.

The term for content creators on Youtube is called Youtuber, which is a promising new profession in Indonesia. by only arousing content and videos that are in line with the creator's own background or experience, as a space for the creator to express himself. This profession is also tempting because the honorarium received by YouTubers in Indonesia is estimated to reach IDR 2.6 billion to IDR 46 billion per year (Anisa, 2019), of course, is a very fantastic amount just by making fun videos for the creators. With this phenomenon, many of the artists who are active in the world of television or conventional media are now using Youtube channels as opportunities to create new opportunities because the profits are very lucrative. They do this because they also think that conventional media audiences are decreasing and turning to digital media.

On YouTube, there are many famous artists in Indonesia who have successfully carried out their profession as a YouTuber. Television artists have shifted direction to become YouTube artists because YouTube is more popular with the public than television (conventional media), this is in accordance with the slogan of YouTube itself, namely "YouTube is more than just TV". Here are 10 rows of television artists who are now successful as YouTubers:

Table 2: Youtube Channel Data Owned by Indonesian Television Artists

No	Artist	Youtube Channel	Subscribers
1	Raffi Ahmad dan Nagita Slavina	Rans Entertainment	11,4 M
2	Baim Wong	Baim Paula	8,37 M
3	Raditya Dika	Raditya Dika	8,02 M
4	Ruben Onsu	The Onsu Family	4,18 M
5	Sule	Sule Channel	3,07 M
6	Natasha Wilona	Natasha Wilona	3,06 M
7	Irfan Hakim	deHakims	2,61 M
8	Shireen Sungkar dan Sazkia Sungkar	The Sungkar Family	2,55 M
9	Irish Bella dan Amar Zoni	Aish TV	1,7 M
10	Andre Taulany	Taulany TV	1,47 M

Source : <https://www.youtube.com/> (2019)

From the table, several artists who are currently successful, seen from their achievement indicators (number of subscribers), cannot be separated from the personal branding process that is being carried out so that they get a good position for YouTube channel lovers. Even though artists depart from a brand that is already embedded in the eyes of the public, but Youtube as a new media has a different way of working from television (conventional media). This is the focus of this research, how personal branding carried out by top artists who have succeeded in conventional media has made the channel an entrepreneurial orientation in obtaining safety-net. Branding is done to differentiate or highlight the advantages of a product from other similar products. Not only applies to products, branding, of course, can also be used for ourselves. It is then referred to as personal branding can provide a myriad of benefits for ourselves. However, many people do not realize and do not manage personal branding properly. Everyone is competing to build their personal branding according to their areas of expertise and interests. Many artists then take advantage of the mass media for various purposes such as increasing their reputation by creating a sensation to keep their names popular. In addition, artists also usually use the media as a means of promotion for their business interests and others (Pattipeilohy, 2015).

Personal branding can shape one's perceptions of others, by telling experiences to others naturally so that other people think that these perceptions are built by themselves (Montoya & Vandehey, 2002). Personal branding can also be said to be a process in which a person is seen as a brand by the target market (Lair et al., 2005). This is in line with a vlog content run by Raffi Ahmad which carries the theme of family and personal life. The possibility of being successful in creating content on the YouTube channel is accuracy in determining the right content according to the self-value that has been displayed for a long time in the minds of entertainment lovers (watching). As Raffi Ahmad said, "YouTube actually doesn't know age. Deddy Corbuzier is proven right, but as long as he finds the core, where will he go, if I am family, I, my teeth, and my child are Rafathar," said Rafi Ahmad on Ferry Maryadi's YouTube account as quoted on Ferry's account. Personal branding is a process of forming people's perceptions of the aspects a person has. Among these are personality, abilities, or values, and how this stimulus generates positive perceptions from the community which in turn can be used as a marketing tool (McNally & Speak, 2002). Everyone must have a brand. However, some of these people do not realize it so they do not manage it strategically, consistently and effectively. In fact, personal branding can help a person to develop

and differentiate himself from others. The importance of personal branding is not widely known, but Baim Wong can see this opportunity and take advantage of platforms like YouTube and create personal branding as a fun person. Baim Wong presents his activities with family, friends from artists, and YouTubers. as well as presenting responsive programs with care for others.

The following eight things are the main concepts that are used as references in building a person's personal branding. (Montoya & Vandehey, 2002), namely:

1. The Law of Specialization

The hallmark of a great personal branding is the accuracy in a specialization, concentrated only on a certain strength, skill or achievement. Specialization can be done in one or several ways, namely:

- a) Ability - for example a strategic vision and good starting principles;
- b) Behavior - for example leadership skills, generosity, or the ability to listen;
- c) Lifestyle - eg living on a boat (not at home like most people), traveling long distances by bicycle;
- d) Mission - for example by seeing others beyond their own perceptions;
- e) Products - eg futurists who create an amazing workplace;
- f) Profession - for example a leadership coach who is also a psychotherapist;
- g) Service - for example a consultant who works as a nonexecutive director.

2. The Law of Leadership

Society needs a leader who can decide something in an atmosphere of uncertainty and provide a clear direction to meet their needs. A personal branding that is equipped with power and credibility so as to be able to position someone as a leader who is formed from one's perfection.

3. The Law of Personality

A great personal branding must be based on a personality figure that is what it is, and comes with all its imperfections. This concept removes some of the stresses that exist on the concept of Leadership (The Law of Leadership), a person must have a good personality, but does not have to be perfect.

4. The Law of Distinctiveness

An effective personal branding needs to be displayed in a different way from the others. Many marketers build a brand on the same concept as most brands in the market, with the aim of avoiding conflict. However, this is actually a mistake because their brands will remain unknown among the many brands in the market.

5. The Law of Visibility

To be successful, personal branding must be seen consistently over and over, until someone's personal branding is known. So visibility is more important than ability. To be visible, one needs to promote himself, market himself, take every opportunity he comes across and have some luck.

6. The Law of Unity

The personal life behind the personal branding must be in line with the moral ethics and attitudes that have been determined by the brand. Personal life should be a mirror of an image to be implanted in a Personal Brand.

7. The Law of Persistence

Every personal branding takes time to grow, and during that process, it is important to always pay attention to every stage and trend. Can also be modified by advertising or public relations. One must stick to the initial Personal branding that has been formed, without ever hesitating and intending to change it.

8. The Law of Goodwill

A personal branding will give better results and last longer, if someone behind it is perceived in a positive way. The person must be associated with a value or idea that is generally recognized as positive and useful.

Personal Branding Popular artist in conventional media using Youtube Channel for new business

Every artist who starts using Youtube as their new medium has almost the same characteristics. The content that is created is a manifestation of everyday life through impressions that are made naturally. The need for this content is the result of the interaction of the artists with the viewers in the YouTube comment column which is then realized by the curation of their respective channel management. The following is a reference factor for personal branding that is relevant to use as an output of the success of artists using the YouTube channel which was researched based on literature reviews on the display display and existing content:

Specialization

- a) Ability - channel YouTube artists consistently provide a graphic that always provides an activity as a basis for good principles. For example, they often give away in an effort as proactive and appreciative action to their subscribers to continue to be loyal viewers. Whose activities are designed according to the color of the content that was carried from the start as an effort of consistency.
- b) Behavior - the generosity of the YouTubers, a striking artist, is shown to be different from other YouTubers. This activity is also built with the awareness and listening ability of creators or YouTubers in interacting through the comments column on a video upload and live streaming.
- c) Lifestyle - a lifestyle that is shown to inspire the audience and create a stimulus to give a realated sense of the impression displayed on a daily vlog content.

Personality

The artist's personality becomes a promising personal branding process. By presenting the life process as it is that is not recorded by the television layer, youtube has access to freedom of expression. So that it makes capital to attract subscribers to watch the YouTube channel.

Differences

This difference is an important thing done by YouTubers. This allows for special attention and loyalty from subscribers to keep up with the creative process of Youtuber artists. This is a very determinant thing and not only must be owned by the artist, but other YouTubers are also doing the same thing. Starting from an opening, content, and a unique and attractive give away agenda, the requirements for differences as a marketing process.

Unity

The moral and ethical commitment made by the artist is quite a burden. Because when there is a mistake, the brand itself will be greatly affected. In the digital world there are what are called haters where a group of people who are critical and look for mistakes from a public figure. The law of unity looks right on the content of this youtub artist, always. When there is a conflict they respond quickly by making a clarifying video. Even so, it is to create a harmony and become a moral responsibility as a public figure who has millions of followers or subscribers.

Product

Product is something that is familiar to a YouTuber. Moreover, an artist who has a high social impact takes advantage of this opportunity by selling a product. Because his brand is very attached to whatever he does. And this is an illustration of the personal branding process towards entrepreneurship.

This is an analysis of indicators that are relevant as factors that shape artists in making a strategy on their YouTube channel. From this process, successful personal branding will provide an opportunity to make his own value into a product that can be manifested as an entrepreneur's agenda. Personal branding reflects that humans are a brand and they can shape the brand by several factors. Personal branding is a promise from oneself that is reflected as self-worth (Philbrick & Cleveland, 2015). Personal branding is a marketing concept related to the marketing strategy that a person adopts to promote their personal characteristics (Zarkada, 2012). Personal branding is defined as a process. Personal branding is a strategic process (Montoya & Vandehey, 2002) which is applied in humans as a planned process in which a person makes an effort to market himself (Kheder, 2014). personal branding is a strategic process (Montoya & Vandehey, 2002) in carrying out business activities. In this case, humans do not really become commodities (even though many definitions say this), but the point is the hopes of the humans themselves (Zakarda, 2012). Hope that is meant is the hope to stand out in business. The goal is to be recognized and also a unique feeling and worthy of attention, the hope of finding meaning that is happening now (Zakarda, 2012). Personal branding is like an aura that comes out in a person. Other people will see that and then they will perceive who someone is in their minds.

Entrepreneurial Orientation can be seen as the process of making entrepreneurial strategies used by key decision makers to enact their company's organizational goals, maintain their vision, and create a competitive advantage (Rauch et al., 2009). Entrepreneurial Orientation construction is rooted in the work (Miller in Kadam et al., 2019), which was further developed by Covin and Slevin in Kadam et al. (2019). From the definition of the name of the business, it is concluded that operating Entrepreneurial Orientation as a uni-dimensional construction with three dimensions: innovation, proactivity and risk taking. Entrepreneurial Orientation is most likely to be successful

in a small business because it represents the ability to meet changing markets and manage risk (Dess et al., 2011). Entrepreneurial Orientation also helps a small business to overcome the limitations associated with developing their strategic orientation. As for several other researchers, there are four dimensions of entrepreneurial orientation. Halim et al. (2011) and Gupta et al. (2014) or five dimensions (Lumpkin & Dess, 1996; Dess & Lumpkin, 2005; Al-Saed et al., 2010; Madhoushi et al., 2011; Djojoba & Tawas, 2014), namely innovativeness, proactiveness, competitive aggressiveness, risk taking, and autonomy. This study measures entrepreneurial orientation variables, namely:

Innovativeness

Innovation is the tendency to engage in creativity and experimentation through the introduction of new products or services and technological leadership through research and development in new processes (Lumpkin & Dess, 1996). Innovative is an alternative for companies to develop and survive in a dynamic and volatile environment (Pardi et al., 2014). Innovative is a reflection of an entrepreneur to support business by trying new ideas or adopting new ideas to apply to their business operations.

Proactive (proactiveness)

Proactivity is the ability to take the initiative, especially at the right time (Kwak et al., 2013). A dynamic business environment will be one of the challenges that companies need to pay attention to, so it requires fast attitude and action in facing challenges in the business environment. Proactively encouraging organizations to get ready for market opportunities (Hussain et al., 2015). Thus, proactive firms are leaders of followers who have the ability and desire to seize new opportunities, although they are not always the first to do so (Lumpkin & Dess, 1996).

Taking risks (risk taking)

Risk taking is taking decisive action by exploring the unknown, borrowing large amounts, and / or allocating significant resources to businesses in an uncertain environment (Lumpkin & Dess, 2005). Taking risk includes risks in terms of investment and strategic decisions, even if the outcome of these actions is uncertain (Franco & Haase, 2013). Risk taking is the action of an entrepreneur who has the willingness or willingness to take advantage of his / her resources to carry out a job even without certainty about the results to be obtained (Kobia & Sikalieh, 2010).

Aggressiveness of competition

Competitive aggressiveness is the intensity of the company's efforts to outperform competitors and is characterized by aggressive attitudes or responses to the actions of competitors (Lumpkin & Dess, 2005). This is important to maintain the market position that has been achieved so far. All strategies must be designed with the aim of defending the company's market position against the efforts of competitors (Hussain,et al., 2015).

The efforts of artists who use Youtube channels in dealing with their channels which are full of carrying out a personal branding process as a goal in entrepreneurial orientation get a model in this research:

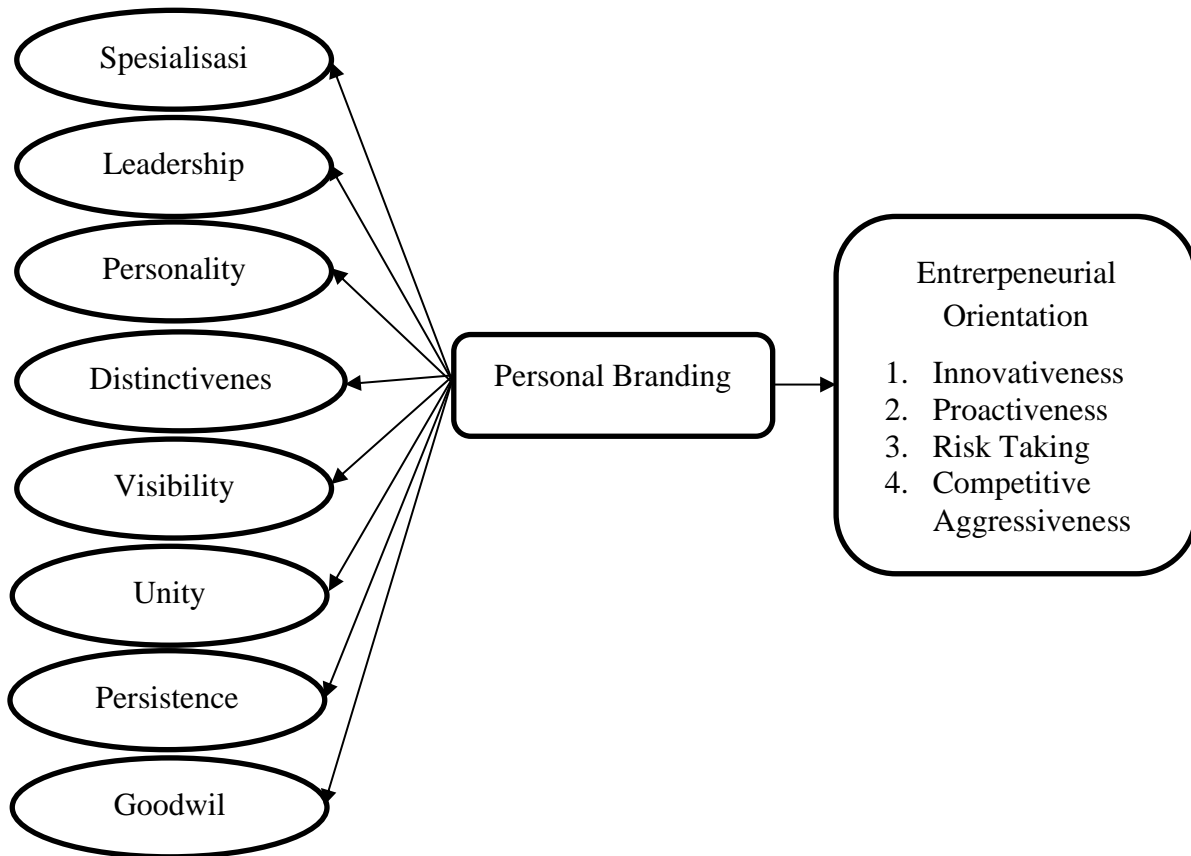


Figure 1. Model

In the model, it can be seen that the factors forming personal branding are related and influence entrepreneurial orientation. It can be explained that an artist must have the factors that form personal branding, because that is what they will sell on their Youtube channel. With complete personal branding forming factors that they have, will directly make them an orientation in terms of entrepreneurship. It is said that entrepreneurs here are because they do this differently from conventional media, they prepare their own management, think about the content to be made, time management, crew honoraria, etc. From that, it has been seen that along the way these artists will always think about innovation, a proactive attitude, a basis for taking risks, and also have to increase their aggressiveness in competition.

The point is that these artists should always think about the innovations they have, such as innovations in their specialties, their differences, and their authenticity. When the artist thinks about the content to be uploaded, there is a concept of risk taking that is carried out. They take risks from what they may not have done before. To be able to create what content their subscribers like, they must be proactive by reading or even replying to comments. Finally, that's when all the personal branding factors are mobilized to get good results. This means that competition is increasingly complex and all levels are required to be more creative. All of that comes from what they form from their personal branding. They start to build personal branding, then make it

sustainable, which in turn will affect their entrepreneurial orientation. It was all done on the basis of their decision to migrate to digital platforms and leave conventional media.

In the future, we will try to create a personal branding model that can be used as a basis for strategy or analysis in the business / business world for the advancement of the credibility and capability of the business based on the individual. In addition, it also adds gender or generations as a moderating variable which is expected to make a difference from the views of society.

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Pod Maturity and Seed Germination of Blue Ternate (*Clitoria ternatea* L.)

Lorelyn Joy N. Turnos^{1*}

¹ University of Southern Mindanao, Kabacan, Cotabato, Philippines

*Corresponding Author: lturnos@usm.edu.ph

Abstract: *Harvesting of seeds at proper stage of maturity is very essential to attain better seed quality. Excellent seed performance could be characterized by the seed viability and vigor, as well as their actual performance in the field. The seed viability of different varieties of Clitoria ternatea, commonly known as blue ternate plants, of five different pod maturities (1 – 100% green pods; 2 - 50% green + 50% brown pods; 3 – 100% light brown pods; 4 – 100% brown pods; 5 – 100% over-mature, twisted brown pods) was evaluated in this study. The study was carried out in a Split Plot Design arranged in Randomized Complete Block Design with four replications. This was conducted at the University of Southern Mindanao, Kabacan, Cotabato, Philippines from February to May 2020. Pod maturity based on the visual color of the pods significantly influenced seed germination. A 100% uniform color of both light to brown pods is a good indicator of higher germination rate. Seeds from over-mature pods with shrivelled and twisted conditions can still germinate but with lower germination percentage rate. The results also imply that even blue ternate pods are still green in color, as long as the seeds are already black, these seeds were already capable of germination, however, at lower germination rate compared to pods which are already brown.*

Keywords: *Clitoria*, blue ternate, pod maturity, seed germination

1. Introduction

Successful seed production is highly dependent on the detection and implication of optimal time of harvesting. Stage of maturity at harvest significantly influences the quality of seeds (Demir et al., 2008). Harvesting the pods too early may cause poor seed germination rate, high seed dormancy, low yield and quality, because of the partial development of essential seed structures (Elias & Copeland, 2001; Ekpong & Sukprakarn, 2008). Hence, stage of pod maturity at harvest affects seed yield, dormancy as well as seed viability and germination. Harvesting the pods too late may also increase the shattering risk and may affect the quality of the seeds primarily due to ageing. Moreover, adverse environmental condition such as raining may result in seed sprouting on mother plants (Wang et al., 2008; Elias & Copeland, 2001).

At the end of seed filling period (Tekrony & Egli, 1997) or slightly after this phase (Lehner et al., 2006), maximum seed quality may be achieved. The end of seed filling phase is described as physiological maturity (Harington, 1972) or mass maturity (Ellis & Pieta Filho, 1992). This study was conducted to evaluate the impact of pod maturity of different varieties of *Clitoria* on the

germination of the seeds. This is necessary to determine the appropriate time for harvest and seed quality improvement of the said crop.

In as early as 1950s, studies on *Clitoria ternatea* sought to elucidate the phytochemical composition, pharmacological activities and active constituents of the crop (Morita et al., 1976). Commonly known as butterfly pea, it is a perennial herbaceous plant from the Fabaceae family. The crop has attracted a lot of interest as it has potential applications both in modern medicine and agriculture, and as a source of antioxidants and natural food colorants. As a fast summer-growing legume, it can cover the soil within no more than 30 to 40 days after sowing and yield mature pods within 110 to 150 days. It has been cultivated as a forage and fodder crop, and has been widely used in traditional medicine, particularly as a supplement in enhancing cognitive functions and alleviate symptoms of numerous ailments like fever, pain, inflammation and diabetes (Mukherjee et al., 2008).

The study was laid out in a Split Plot Design arranged in Randomized Complete Block Design with four replications, and was conducted at the University of Southern Mindanao, Kabacan, Cotabato, Philippines from February to May 2020.

2. Literature Review

Harvesting of pods is more ideal when immediately done after physiological maturity, wherein seeds attained the maximum dry matter accumulation, high vigor levels, high rate of germination (Guimaraes et al., 2012). Various researchers (Sedyama, 2013; Forti et al., 2013; Kehl et al., 2016; Rigo et al., 2018) revealed that delayed harvesting may reduce germination and vigor of the seeds. Therefore, there is a need to identify proper stage of maturity in which the pods or the seeds can be harvested without reducing vigor and viability in order to maximize yield and optimize the quality of harvest.

Gast (1992) concluded that harvesting at proper maturity stage is the most critical stage in postharvest system which may lead to very serious losses, both quantitatively and qualitatively. Moreover, Salunkhe and Desai (1984) stated that beans should be harvested prior to full grown stage of the pods while the seeds are still small. He added that majority of bean cultivars become stringy and tough when left on the plant until the seed develops to a considerable size. Champa et al. (2008) also observed that the maturity of *Phaseolus* beans can be achieved at 12 to 15 days after fruit setting (DAFS) under dry zone conditions ($28\pm 2^{\circ}\text{C}$ temperature and 69 - 78% relative humidity).

The study of Cerna and Beaver (1989) revealed that physiological maturity of a community of indeterminate bean plants occurred when most pods were brown; that is, later than the occurrence of PM suggested by other researchers (CIAT, 1982; Izquierdo & Hosfield, 1981; Lebaron, 1974; Yourstone, 1988).

Germination rate and seedling emergence can be significantly decreased due to low seed quality, leading to poor stand field establishment and eventually yield loss in many crops, including garden pea (Hampton and Scott, 1982), corn (Moreno-Martinez et al., 1998), barley (Samara and Al-Kofahi, 2008), wheat (Ganguli and Sen-Mandi, 1990) and cotton (Iqbal et al., 2002). Hence, it is

important to examine and identify appropriate techniques for the production of high quality seeds from different crops.

3. Discussion and Conclusion

Harvesting of seeds at proper stage of maturation is very essential to attain better seed quality. Excellent seed performance could be characterized by the seed viability and vigor, as well as their actual performance in the field. Timing of harvest is very critical because reduction of seed quality could be due to seed immaturity and weathering. As mentioned by Seshu and Dadlani (1989), the major aspects of seed quality are: genetic and physical maturity, high germination and vigor, and absence of seed-borne pests.

As part of this study, in order to evaluate the physiological maturity of *Clitoria*, a field trial was done using *Clitoria* pods at different stages of maturity and different varieties. Seed viability of five different maturities (Figure 1) of the pods was evaluated. Moreover, five different varieties of *Clitoria*, specifically two blue double-layered varieties, one White-colored single, one Blue-colored single and one Violet-colored single variety as the test plants.

As presented in Table 1, the interaction of the maturity of the pods and *Clitoria* varieties did not significantly influence the germination rate of the seeds. However, statistical analysis revealed that pod maturity alone and the *Clitoria* varieties resulted in significant seed germination.



Figure 1: Different stages of pod maturity of *Clitoria ternatea*.

Legend:

- M1 - 100% green pods (with black seeds)
- M2 - 50% green + 50% brown pods
- M3 - 100% light brown pods
- M4 - 100% brown pods
- M5 - 100% over-mature and shrivelled brown pods

Table 1: Percentage (%) seed germination of different *Clitoria* varieties as influenced by various pod maturity stages at 21 days after sowing. University of Southern Mindanao, Kabacan, Cotabato, Philippines. 2020.

Maturity Stage	Blue-double (NC)	Blue-double (DC)	White-single (DC)	White-single (NC)	Blue-single (NC)	Mean ^{1/}
M1	61.00	60.25	47.50	53.50	64.00	57.25 ^b
M2	85.25	80.50	68.25	73.00	87.50	78.90 ^a
M3	84.00	82.75	71.50	88.00	86.50	82.55 ^a
M4	88.75	87.25	76.00	82.50	89.50	84.80 ^a
M5	61.75	56.25	53.75	70.75	55.00	59.50 ^b
Mean ^{2/}	76.15 ^a	73.40 ^a	63.40 ^b	73.55 ^a	76.50 ^a	

^{1/} - Means in the same column with common letter superscripts are not significantly different at 1% level (Tukey's Test).

^{2/} - Means in the same row with common letter superscripts are not significantly different at 1% level (Tukey's Test).

Maturity	0.000
Variety	0.000
Interaction	0.053
CV (%)	a 13.34
	b 9.80

Legend:

North Cotabato (NC), Davao City (DC), South Cotabato (SC)

Pod maturity stages:

- M1 - 100% green pods (with black seeds)
- M2 - 50% green + 50% brown pods
- M3 - 100% light brown pods
- M4 - 100% brown pods
- M5 - 100% over-matured and shrivelled brown pods

In terms of the maturity stage of the pods, it was noted that maturity stage 4 (100% brown pods) resulted with the highest seed germination of 84.80%. This was found comparable with M3 (100% light brown pods) and M2 (50% green + 50% brown-colored pods) with means of 82.55 and 78.90%, respectively.

Seed germination of all *Clitoria* varieties at early stage (maturity stage 1 – pods in green color with black seeds) of pod maturity obtained the lowest seed germination of 57.25%. On the other hand, seed viability started to decrease with 59.50% germination rate at maturity stage 5 (over-matured, shrivelled brown pods). In terms of varietal differences, seed germination of all varieties, except for the white single variety (63.40%), was found statistically comparable having a range of 73.40 to 76.50%.

The results imply that even though the blue ternate pods are still green, as long as the seeds are already black, the seeds were already capable of germination, however at lower germination rate

compared to seeds from pods which are already brown. A 100% or uniform color light brown to brown pods is a good indicator of higher germination rate. Moreover, seeds from an over-mature pods with shrivelled and twisted conditions can still germinate but at lower germination percentage rate.

This is in affirmation on the findings of Kumar et al. (2002) that yield and quality of seeds are highly dependent on the crop's maturity stage. Moreover, a very high moisture may increase possibilities of seed infection due to various pathogens, whereas harvesting at low moisture content will contribute to the seed's susceptibility to mechanical damages (Yadav et al., 2005).

Summary

The results of the study can be summarized as follow:

- a) Pod maturity based on the visual color of the pods significantly affected the germination of seeds. A 100% uniform color of both light brown (Maturity Stage 4) to brown pods (Maturity Stage 3) is a good indicator of higher germination rate.
- b) Blue ternate pods which are still green but seeds are already black are already viable, however at lower germination rate as compared to seeds from brown pods. Seeds from over-mature pods with shrivelled and twisted conditions can still germinate but at lower germination percentage rate.

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Product Quality Control in the Bandung Convection Home Industry Using Statistical Quality Control (SQC) Methods

Resi Juariah Susanto^{1*}

¹ Management, STIE EKUITAS, Bandung, Indonesia

*Corresponding Author: resi.juariah@gmail.com

Abstract: *This research was conducted in the field of convection, where convection is currently developing with the existence of e-commerce so that consumers can easily get the goods they want. So that companies must be able to improve the quality of their products and also increase their income by using Statistical Quality Control (SQC) so that the products produced by entrepreneurs remain within the standard limits set by the company and the market also produces the best products. The purpose of this study was to determine the quality control and the factors that cause defects in a product. The method uses Statistical Quality Control (SQC) using inspection sheets, scatter diagrams, cause and effect diagrams, Pareto charts, flow charts, histograms, and control charts. The results of the control chart analysis show that there are points that are outside the control limit. Based on the fishbone diagram, the factors that cause product damage come from human factors, raw material factors, method factors, machine factors, and environmental factors.*

Keywords: Quality Control, Defective Products, Statistical Quality Control (SQC)

1. Introduction

At this time the developing business sector in the field of convection where the demand for clothing is growing coupled with the existence of an e-commerce platform that is easily accessible from anywhere so that the demand for a product is increasing and also coupled with the ease of delivery from anywhere so that it is very easy consumers to get the desired product. This is the main focus in maintaining good quality in maintaining the company for the long term. If the products produced by the company are not by the standards that have been set, it is necessary to have quality control. According to Heizer and Render (2015: 300) quality is the ability of goods or services to meet customer needs. Even though every company has carried out quality control well, errors still occur that affect product quality, be it in machines, raw materials, or employee negligence. According to Gaspersz (2011) quality is a way that aims to continuously improve performance at every level of operation or process, in every functional area of an organization by using all available human resources and capital. Good quality will result from a good process that is in accordance with predetermined standards based on market needs. So that the problem that exists is to suppress products that are not following the standards set by the company so that the company can obtain optimal profits following the long-term growth of the company. In addition, the product that will be accepted by consumers is the best product with a smaller failure rate.

2. Literature Review

About Literature Review

Statistical Quality Control (SQC) is a system developed to maintain a uniform standard of quality of production, at a minimum cost level is an aid to achieve company efficiency. Basically, Statistical Quality Control (SQC) is the use of statistical methods to collect and analyze data in determining and monitoring the quality of production results efficiently. According to Fahmi (2012: 46) Statistical Quality Control (SQC) is a mechanism designed to help company management be able to understand every product workmanship from start to finish with a measurable and systematic mechanism. Meanwhile, according to Mayang (2015: 16) states that the meaning of Statistical Quality Control is a system developed to maintain uniform standards of quality of production output at a minimum level and apply assistance to achieve efficiency. Irwan and Haryono (2015: 46) say that statistical quality control is a statistical technique needed to guarantee and improve product quality. Most of the statistical quality control techniques in use today have been developed previously. Likewise Yamit (2013: 202) states that statistical quality control is a very useful tool in making products according to specifications from the beginning of the process to the end of the process.

Statistical quality control tools using SQC (Statistical Quality Control) have 7 main statistical tools that can be used as a tool to control quality as also mentioned by Irwan and Haryono (2015: 51). Heizer and render (2015: 254) also mention that there are seven main statistical tools that can be used as a tool to control quality, including:

1. Check sheet

The check sheet or inspection sheet is a data collection and data analyzer which is presented in a tabular form which contains data on the number of goods produced and the types of discrepancies along with the amounts produced.

2. Scatter diagram

Scatter diagrams or also known as correlation maps are graphs that show the relationship between the two variables is strong or not, namely between process factors that affect the process and product quality. Basically, a scatter diagram is a data interpretation tool used to test how strong the relationship between the two variables is, whether positive, negative, or no relationship.

3. Causal diagram

This diagram is also called a fish bone diagram and is useful for showing the main factors that affect quality and have an effect on the problem we are studying. Besides that, we can also see the factors in more detail that influence and have an effect on these main factors which we can see in the arrows in the shape of fish bones in the fishbone diagram.

4. Pareto diagram

A diagram is a bar graph and a line graph depicting the comparison of each type of data to the whole. Thus the Pareto diagram, it can be seen which problems are dominant so that we can find out the priority of problem solving. Pareto diagram function is to identify or select the main problems of quality improvement from the biggest to the smallest.

5. Flow chart

Flowcharts graphically show a process or system using interconnected squares and lines. These diagrams are simple enough, but they are excellent tools for trying to understand a process or explain the steps of a process.

6. Histogram

The histogram is a tool that helps to determine variations in a process. It is a bar chart that shows tabulations of data arranged by size. This tabulation of data is commonly known as the frequency distribution. The histogram shows the characteristics of the data which are divided into classes. The histogram can be in the form of "normal" or shaped like a bell which indicates that a lot of data is contained in the average value. The shape of the histogram that is slanted or asymmetrical shows that a lot of data is not at the average value but most of the data is in the upper or lower limits.

7. Control chart

A control chart is a tool that is graphically used to monitor and evaluate whether an activity / process is under statistical quality control or not so that it can solve problems and produce quality improvements. The control chart shows a change from time to time, but does not show the cause of the deviation even though the deviation will be visible on the control chart.

3. Discussion and Conclusion

In producing t-shirts from the convection industry, of course, it will not be separated from the name of a defective product, therefore it is required to exercise control by the business owner where the company must have standards determined by the company so that the goods have good results and sell well in the market. To achieve business and maintain the quality of the products it produces, Home Industry Convection Bandung often gets into trouble. The problems that occur in the Bandung Convection Home Industry are due to several factors including man (human), material (raw material), method (method), machine (machine), and environment (environment). Information about the factors that cause damage to the convection product is obtained which is presented in the form of a fishbone diagram.

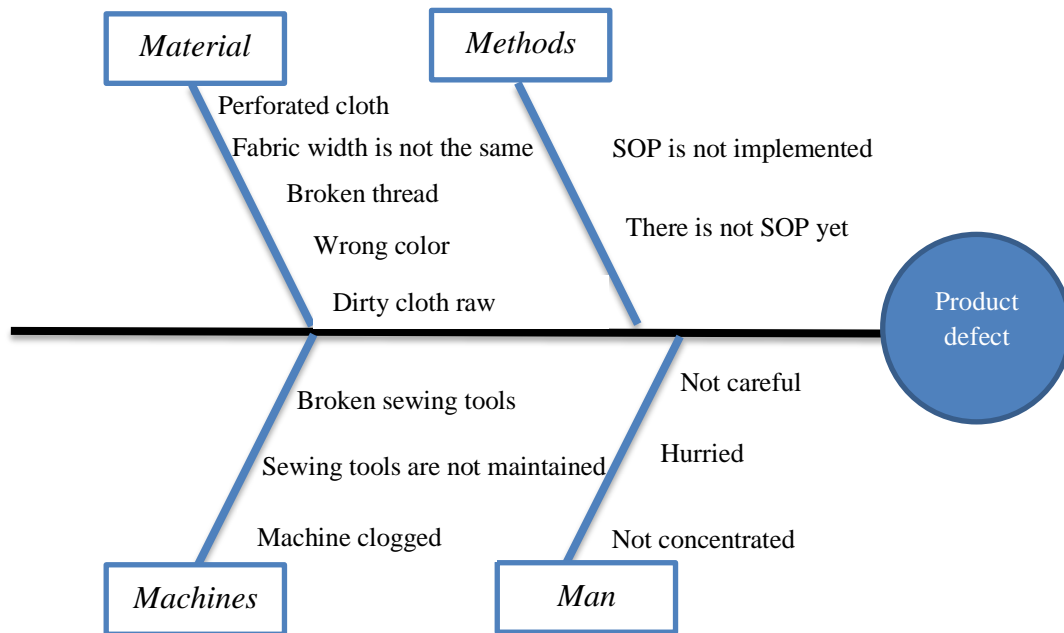


Figure 1: Fishbone Diagram of Product Defects

Based on the fishbone diagram of product defects, for workforce, skills and concentration are the main factors in every job done, but there are still employees who are less focused on their work, as a result of a lack of skills and concentration caused by haste in their work, not being careful, and not careful. Is the improvement, namely by supervising employees so that they are always focused on the process. Skills and concentration are the main factors in every job done, but there are still employees who are less focused on their work, as a result of a lack of skills and concentration caused by haste in their work, not being careful, and not careful. Is the improvement that is by supervising employees so that they are always focused on the process.

For machines, it is the main means or factor in the sewing process. The equipment damage that occurs is the jump stitches so that the stitches are not strong and cause sewing defects. The repair step is to always maintain the maintenance of the machines used so that they are not damaged during use. As a major factor in the knitting process, the damage that occurs, namely the clogged machine, needs to be well anticipated because it can hinder the production process and damage the product. The repair step is to maintain the machine so that no damage occurs during use and more attention must be paid to its use. the cleanliness of the machine used greatly affects the quality of the product, if the machine used is not properly maintained it will cause dirty defects in the product. The repair step is to clean the machine used.

Furthermore, the method factor, sewing errors due to the employee's inadequacy in sewing can cause severe disability, the company does not have an SOP on how the sewing technique is desired by the company so that employees perform sewing not according to the skills the company wants. The fix is to establish SOPs. The absence of SOPs in maintaining machines will result in production defects because there is no maintenance from employees and the use of machines is not regulated by SOPs. The repair step is to add SOPs to machine use so that no damage and defective products occur. , the absence of SOP for cleanliness of the company will affect the quality of the products produced because the occurrence of a little dirty will result in defects. The improvement step is to make SOP for the cleanliness of the company.

For the raw material category, the company has reminded employees to check the yarn so that it is not damaged during use, and also for color errors the company has reminded employees to check the color first of the remaining fabric to be used so that there is no wrong color.

Based on the fishbone diagram of gross defects, it can be seen that gross defects can occur due to human factors, raw materials, methods, machines, and the environment. For the category of raw materials, convection has reminded employees to first check the raw materials purchased so that they are not found dirty in the raw materials.

Then the following is a description of the fishbone diagram of the damaged product:

1. Human Factors (man)

Human or Labor factors have a very important influence in controlling the quality of a product that is produced and can make the product good or not. Workers in a company must have the awareness to maintain and improve the quality of the products produced, so that the output produced by the company has good quality that is able to compete in the market and so that in the end it will have a positive impact on the workers themselves. Convection itself has a

problem caused by labor which results in a decrease in the quality of the knitted products produced so that they experience disabilities, this problem occurs due to a lack of knowledge of good and correct procedures in production and lack of supervision of workers during the production process. In carrying out their work, sometimes employees do not focus, are not careful, and are not careful in doing their work so that it can interfere with the work being done and cause errors.

2. Raw material factor (material)

The raw materials used by the company are things that need to be considered, because the raw materials greatly affect the results of the final product. Raw materials that can affect the occurrence of defects are the quality of the raw materials used. The raw material that is usually used is yarn. The better the quality of raw materials, the better the products produced by the company, and vice versa. Selection of raw materials must be done properly to get quality raw materials, when choosing raw materials it is necessary to check the ingredients and the cleanliness of the materials because it will greatly affect production results and production costs.

3. Factor method (method)

The work method used by the company affects the smoothness of the production process. This work method serves to regulate all visible parts in the production process. The work methods established by convection have not been fully carried out well in some elements of the production process established by the company, therefore it is necessary to emphasize the work methods applied by the company to each element involved in the knitting production process to be able to work in accordance with the work method. applied by the company in order to achieve the desired results, namely according to the standards set by the company. Methods must also be implemented and followed by all employees so that the results of their work are better because no matter how good the method is, if it is not done according to the existing SOP, the results can also affect the quality of the goods.

4. Machine factor (machine)

The machine or technology used has an important role in order to produce quality products. The machines owned by the company are sewing tools, knitting tools, cutting tools, and steam irons. The company itself has problems with the sewing tools used, because sometimes the sewing tools do not sew neatly, sometimes there are stitches skipping which results in the stitches being untidy and not strong. This is due to the lack of maintenance on the machine or the quality of the machine is not good due to lack of maintenance checks which result in the machine not functioning properly and sometimes making the product dirty, so that it can interfere with the smooth running of the ongoing production process and the resulting production results are of poor quality. good. Seeing from these problems, the company needs to carry out maintenance on machines or equipment on a regular basis to prevent damage to the machine and always carry out routine machine checks.

5. Environmental factors (environment)

The work environment in a company has a considerable influence on the smooth running of the production process. An uncomfortable work environment will have an impact on the performance produced by employees because if employees do not have a sense of comfort and safety when performing their duties, it will have an impact on working to be unfocused and not thorough which will affect their performance. The work environment contained in this Convection has problems, namely the work space is narrow and untidy. Another example,

such as a stuffy and hot room can affect employee performance because it is uncomfortable or also like a dirty room, besides affecting the performance of employees, a dirty room can also damage raw materials.

According to Mursyidi (2008: 115), spoiled goods are failed products that technically or economically cannot be repaired into products that comply with the established quality standards. Unlike the remaining materials, damaged products have consumed all elements of production costs (materials, labor, and factory overload costs).

Meanwhile, according to Mulyadi (2012: 302) states products that do not meet predetermined quality standards, which economically cannot be repaired into good products. A damaged product is different from the remaining material because the remaining material is a material that is damaged in the production process, so that it has not yet become a product, while a damaged product is a product that has absorbed the cost of labor materials and factory overhead costs.

Application of the Statistical Quality Control (SQC) Method

In this section, research results and discussion on the application of the Statistical Quality Control (SQC) method will be presented. Before entering the Pareto Diagram, Control Chart, and Fishbone Diagram, we will first look at the production process to identify possible failures from each process that can cause damage to the product.

1. Pareto diagram (pareto diagram)

The following is a calculation of the total percentage of defects and the cumulative percentage of disabilities to create a Pareto Diagram:

Table 1: The Cumulative Percentage of Defect

Defect	Total	Percentage	Cumulative Percentage
Dirty	142	35,06%	35,06%
Sewing	133	32,72%	67,77%
Color	131	32,23%	100,00%
Total	406		

From the results of table 1, it can be seen that the percentage of defects that have been sorted from largest to smallest, starting with gross defects of 35.06%, then sewing defects of 32.72%, and finally color defects of 32.23%. After obtaining this percentage, the cumulative percentage of each defect is sought. The results of the cumulative percentage are the cumulative percentage of gross defects of 35.06%, then the cumulative percentage of sewing defects is 67.77%, and finally the cumulative percentage of color defects is 100%. After knowing the percentage of defects and the cumulative percentage, a Pareto diagram is made as follows:

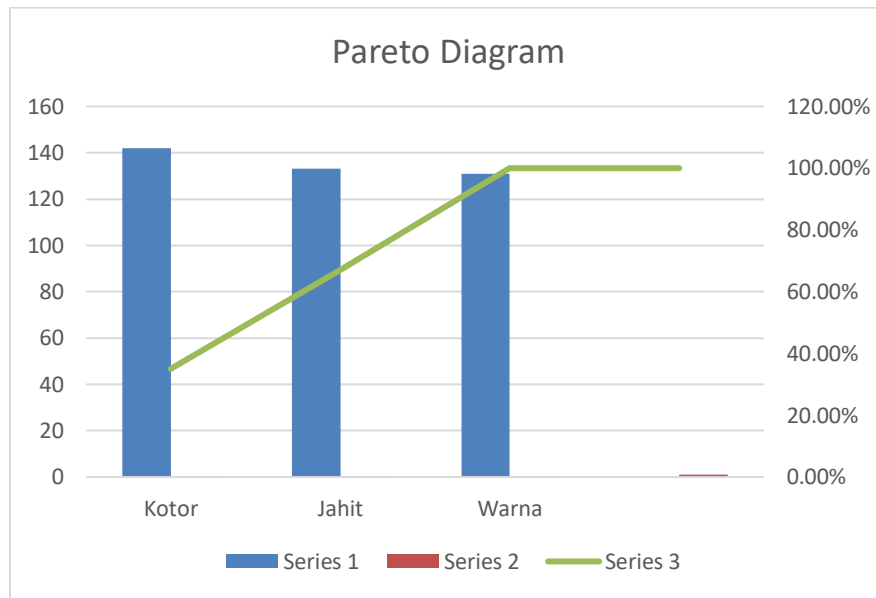


Figure 2: Pareto Diagram of Product Defect Period 2020

From Figure 2 it can be seen that during the 2020 production period, the most common defects found were dirty defects of 142 pcs, where 35.06% of defective products were caused by this gross defect, then the defect with the second highest level was 133 sewing defects, of which 32.72% of defective products were caused by sewing defects, then the lowest defect was 131 pcs. Where 32.23% of defects are caused by this color defect.

2. Control chart (control chart)

The next step is to create a control chart using a p-chart to control quality boundaries. The steps for making a p-chart are as follows:

A. Calculating the Percentage of Damage

The percentage of damage is used to see product damage in each sub group. The formula for calculating the percentage of damage is as follows:

$$p = \frac{np}{n}$$

Description :

np : number of failed subgroups

n : the number checked in the sub group

B. Calculating the Central Line (CL)

The center line or Control Line is the middle line that is between the upper or lower control limits. This center line is a line that represents the average failure rate in a data production process to calculate the center line using the formula:

$$CL = p = \frac{\sum np}{\sum n}$$

Description :

$\sum np$: the total amount that was damage

$\sum n$: the total number checked

C. Calculating Upper Control Limit (UCL)

The upper control limit is an indicator statistically said to be deviant or not. This control limit can be calculated using the formula:

$$UCL = p + 3 \sqrt{\frac{p(1-p)}{n}}$$

Description :

p : average product breakdown

n : total production

D. Calculating Lower Control Line (LCL)

Meanwhile, to calculate the lower control limit using the following formula:

$$LCL = p - 3 \sqrt{\frac{p(1-p)}{n}}$$

Description :

p : average product breakdown

n : total production

Table 2: The Calculation Result UCL, CL, and LCL

Month	Total Production (pcs)	Number of Product Defect (pcs)	Proportion of Defect (%)	P	UCL	CL	LCL
Januari	1400	40	2,86%	0,028571429	0,03069	0,02216	0,01363
Februari	1392	31	2,23%	0,022270115	0,03072	0,02216	0,0136
Maret	1560	28	1,83%	0,018269231	0,03024	0,02216	0,01408
April	1440	30	2,08%	0,020833333	0,03057	0,02216	0,01375
Mei	2130	77	3,64%	0,036384977	0,02908	0,02216	0,01524
Juni	1920	33	1,74%	0,017447917	0,02945	0,02216	0,01487
Juli	1458	25	1,75%	0,017489712	0,03052	0,02216	0,0138
Agustus	1392	44	3,20%	0,031968391	0,03072	0,02216	0,0136
September	1692	21	1,27%	0,012706856	0,02992	0,02216	0,0144
Oktober	1410	23	1,67%	0,016666667	0,03066	0,02216	0,01366
November	1290	28	2,17%	0,021705426	0,03105	0,02216	0,01327
Desember	1260	23	1,83%	0,018253968	0,03115	0,02216	0,01316
Total	18344	403					
Rata-Rata	1528,66	33,58	2,01%	0,021880668	0,030398	0,02216	0,013922

Table 2 Is the result of UCL, CL, and LCL calculations using Microsoft Excel. The calculation results show that the average UCL is 0.030398 or 3%, CL is 0.02216% or 2.2%, and LCL is 0.013922 or 1.4%. The result is a determination for the line to be made in the p control chart, the line that shows whether the points p are within the control limit or not within the control limit.

From the results of the UCL, CL, and LCL calculations above, then a p control chart can be made using Microsoft Excel. The following is a p control chart for the 2020 period.

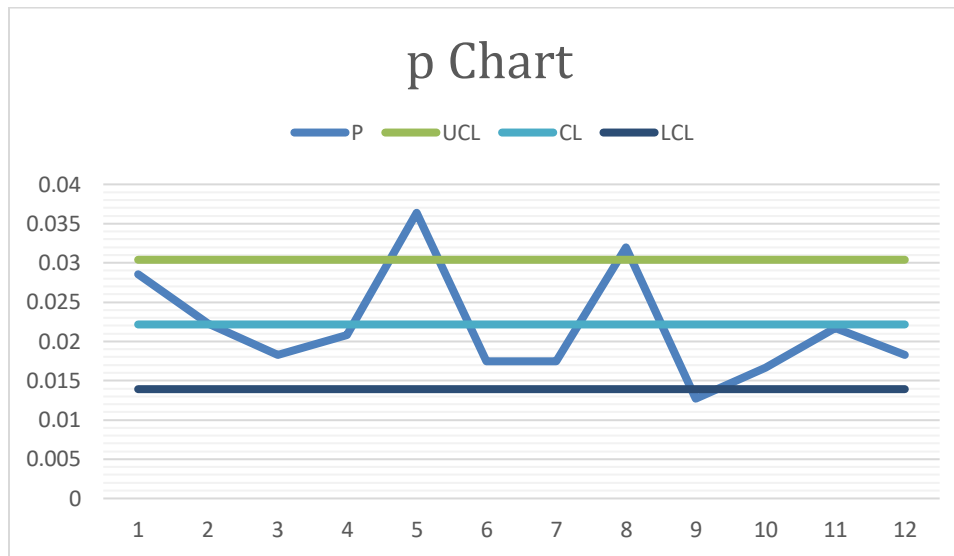


Figure 3: p Chart Diagram of Product Defect Period 2020

Based on Figure 3, it can be seen that the data obtained are points that are outside the control limits (UCL and LCL). The line shown by the \bar{p} (CL) with a value of 0.02216 or 2.2%, the upper control limit (UCL) with a value of 0.030398 or 3%, and the lower control limit (LCL) with a value of 0.013922 or 1.4%. From Figure 3 it can be seen that the center line (CL) of 2.2% has exceeded the standard set by the company, which is 2%, this condition shows that the level of defective products produced by Convection in the 2020 period is high.

From this data, it can be seen that there are three points that are outside the control limit (UCL and LCL) and nine points that are outside the control limit. Three points that are outside the control limit consist of two points that are outside the upper control limit (UCL) which is shown in May at 3.64% and August at 3.20%, then one point that is outside the lower control limit (LCL) which is shown in September at 1.27%. This shows that the product quality control carried out by convection is still experiencing irregularities, therefore it is necessary to improve further analysis of why the deviation occurs using a fishbone diagram.

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The Analysis of Multi-sensory Environments for Children with Autism Spectrum Disorder in United Arab Emirates

Chuloh Jung^{1*}, Nahla Al Qassimi¹, Jihad Awad¹

¹ Department of Architecture, College of Architecture, Art and Design, Ajman University,
United Arab Emirates

*Corresponding Author: c.jung@ajman.ac.ae

Abstract: *Recent statistics indicates that one in 146 children had been diagnosed with Autism Spectrum Disorder (ASD) in the United Arab Emirates and the number is increasing. Even though there is no cure for ASD, the multi-sensory environment (MSE) is widely accepted in the world. The objective of this paper was to explore the effects of the multi-sensory environment on children with ASD, who have visual and auditory hyposensitivity, with the help of cutting-edge technologies to monitor their heart rate. As a methodology, Single-Subject Experimental Design (SSED) was used for the study and MSE interventions was design with visual stimulation, auditory stimulation, and integration of visual and auditory stimulation. The result had shown that experience in a multi-sensory environment is effective in reducing negative repetitive behaviors in daily life of children with ASD. Visual/auditory integrated environmental intervention had a very positive effect on the target behavior of children with visual and auditory hyposensitivity. It was statistically proven that there are obvious differences in heart rate of children with autism spectrum disorder according to the three types of multi-sensory environment interventions. The change in heart rate in a multi-sensory environment, however, could not be concluded with the same effect as the reduction in target behavior. This study will serve as a basic data that one of the important aspects of multi-sensory environment therapy is the flexibility of spatial design that can provide customized environments according to each child with ASD's sensory needs.*

Keywords: ASD, Multi-sensory Environment (MSE), Single-subject experimental design (SSED), Short Sensory Profile (SSP), Heart Rate

1. Introduction

Autism Spectrum Disorder (ASD) is one of the most widely researched neurodevelopmental disorder with language delay, communication impairment, and repetitive actions or interests (Faras et al., 2010). The number of children who are diagnosed with a developmental delay known as an autism spectrum disorder is increasing globally (Boucher, 2017). The Centers for Disease Control and Prevention in America (CDC) had reported that the number of ASD had been increased and in recent years, one in 54 children had been diagnosed with autism category (CDC, 2020). Even though the number of papers or statistics regarding ASD in Middle East are relatively low, recent statistics indicated that one in 146 children had been diagnosed with autism category in the United Arab Emirates (Al Abbady et al., 2017).

Although the cure for people in the autism category has not yet been identified, one promising method for them is the multi-sensory environment (MSE) therapy, a non-pharmacological

behavioral intervention (Thompson, 2011). Since the behaviors of children with autism spectrum disorder are easily affected by sensory stimulation, there is a possibility that their sensory stimulation can be controlled through the physical environment (Fava & Strauss, 2010). While experiencing various sensory experiences in a multi-sensory environment, ASD children can have a stimulating effect, relaxation effect, and opportunities for sensory integration (Pagliano, 2012). Recently, many papers have been published recently with the analysis of the various effects of multi-sensory environments, targeting different people with different physical and emotional conditions (Burns et al., 2019). Despite the fact that experience in a multi-sensory environment has positive effects on improving users' behavioral function and emotional stability, the overall perception of multi-sensory environment treatment is low in the United Arab Emirates compared to socio-economic level (Virolainen et al., 2020). The difficulty of preparing a dedicated space for building a multi-sensory environment room, equipment and installation costs leads to burdensome treatment costs for users, so it is not widely used compared to other treatment programs (Eapen et al., 2007). Another difficulty with multisensory environment therapy is the diversity of sensory profiles for individuals with autism tendencies (Wiggins et al., 2009). However, an important aspect of multi-sensory environment intervention is that individuals have the flexible treatments according to their individual sensory needs (Davies, 2019).

Based on this, the purpose of this paper is to conduct a field experiment to directly observe children who are real users of a multi-sensory environment based on the sensory characteristics of each child diagnosed with autism spectrum disorder, and to scientifically analyze their behavior and physiological responses. This can be an important pathway to understand the relationship between the sensory elements of the environment and the problems facing most children with autism spectrum disorders. This study aims to analyze and share the value of using the multi-sensory environment as a daily healing space by analyzing the effect of the intervention of the integrated multi-sensory environment on children with autism category disorders with various sensory characteristics. It is intended to build the foundation of research on spaces that can contribute to the improvement of the quality of life of children with ASD and their families.

2. Literature Review

2.1. Autism Spectrum Disorder in United Arab Emirates

Autism spectrum disorder, known as complex developmental disorder, is characterized by impaired social interaction and communication, and limited or repetitive homologous behavior (Lauritsen, 2013). Another common trait of children with autistic tendencies is an abnormal interest in the environment, i.e., a problem of sensory reactions (Myers et al., 2007). Abnormal interest in the environment manifests as fascination with lighting or rotating objects, negative reactions to certain sounds or textures, overt interest or indifference to heat or cold, and excessive smelling or sucking objects (APA, 2013). Some researchers have argued that autism category disorder has a causal relationship with sensory processing disorders, which are operated in isolation without the integration of individual senses rather than social communication (Matson & Kozlowski, 2011).

UAE had released the statistics of the identification and prevalence of ASD that one in 146 children had been diagnosed with autism category in the United Arab Emirates (Al Abbady et al., 2017). UAE government had announced the federal commitment that meet the educational, social,

emotional and vocational needs of individuals with special needs by providing them equal access to a quality education (UAE Ministry of Education Special Education Department, 2006). His Highness Shaikh Mohammad Bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE and Ruler of Dubai mentioned education as the right of every child in the UAE. Spreading education and its development is a priority for the development process and a general humanitarian principle and basic right that cannot be overlooked (Gulf News, 2012). With decisive support of leaders of the nation, UAE can implement more efficient special education that will lead ASD children to better lives. Private schools start aligning their direction with the national efforts to provide an appropriate environment for special need children including those with ASD. Based on the inspection handbook by the Dubai Schools Inspection Bureau, major private schools have to enhance the quality of educational services and successfully integrate special needs children with their education contexts (DSIB. 2015). In the United Arab Emirates, there was 78 percent increase in the number of children with ASD symptoms in Dubai alone in last 10 years and this is the reason why UAE should not feel complacent (Gulf News, 2012). In Dubai alone, the number of Autism cases is increasing in last 4 years for local (33%) and expatriate population (67%) based on the cases registry statistics at Dubai Autism Center (Table 1).

Table 1: Prevalence of Autism Cases among Dubai Population (Source: Dubai Autism Center)

Year	Local	Expatriates	Total
2011	60	119	179
2012	61	130	191
2013	60	138	198
2014	58	141	199

Table 2 showed the 84.9% of the cases were males and 15.1% were females, 30.9% were local and 69.1% were expatriate. Regarding diagnosis, 72.4% were diagnosed as Autism Spectrum Disorders, 9.2% as ASD features and 18.4% were diagnosed as other disorders.

Table 2: Prevalence of Autism Cases among Dubai Population (Source: Dubai Autism Center)

Category	Sub-Category	Number	Percent
Gender	Male	129	84.9
	Female	23	15.1
Nationality	Local	47	30.9
	Expatriate	105	69.1
Residence	UAE	128	84.2
	Non-UAE	24	15.8
Diagnosis	ASD	110	72.4
	ASD Features	14	9.2
	Other	28	18.4
Type of Assessment	Full-2 Parts Assessment	62	40.8
	Only Short Form for Screening Tool	90	59.2
Only Short Form for Screening Tool	ASD	48	31.6
	ASD Features	16	10.5
	Other	26	17.1

Total	152	100%
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2.2. Multi-Sensory Environment

Multi-Sensory Environment (MSE) is a specially designed sensory enrichment space using lighting, color, sound, music, texture and scent (Poza et al., 2013). In Europe, it is known as Snoezelen therapy, but the multisensory environment and Snoezelen's initial goals and philosophy started from the same context (Novakovic et al., 2019). In this study, it is intended to use the multi-sensory environment as a term that encompasses these two concepts. The multisensory environment provides treatment for a variety of people with cognitive, emotional and physiological problems, such as children with learning disabilities and the elderly with dementia, as well as the autism spectrum disorder group (Collier & Truman, 2008). Multi-sensory environments generally are composed of 1) visual stimulation elements such as LED fiber optics, dimmers that can control various colors of lightings and illumination, and display projectors, 2) acoustic stimulation elements such as sound equipment and sound stimulation equipment, 3) tactile stimulating elements such as beanbag sofas, floor/wall cushions, and vibrating beds, and 4) olfactory stimulating elements such as aromatherapy (Baillon et al., 2002).

2.3. Single-Subject Experimental Design

Single-subject experimental design (SSED) is referred to as single-case design, single-subject study, or time-series experiment. It is an intervention to solve problems of a single group from one individual, families, or small groups and is intended to scientifically prove what effect the treatment has on this group (Byiers et al., 2012). Single-subject experimental studies increase the internal validity by repeatedly measuring according to reliable observations instead of having no comparative group (Horner et al., 2005). It can be more reliable if the effect of treatment is analyzed repeatedly to see if the tendency that emerged after treatment in one subject appears the same in other subjects (Barlow et al., 2008). Since single-subject experimental design started with behavior modification, it is being used in behavior therapy studies, which are different from case study methods. Both research methods focus on a small number of cases, but the research design and purpose are different (Kazdin, 2010). Single-subject experimental design is a concept of a quantitative research method and uses several procedures for experimental control, whereas case studies are conducted in the field as they are and analyzed by qualitative data (Wendt & Miller, 2012). It also differs from the self-reported survey method, in which respondents are asked about their feelings, thoughts, or actions. Single-subject experimental design is a research method that seeks to obtain in-depth information by investigating a research problem in a situation that is as natural as possible to the research subject through observation (Mills & Gay, 2018).

Single subject experimental design is suitable for conducting evidence-based design and Evidence-based healthcare research. Even if they are diagnosed with the same disability, they are widely used in special education research because they can overcome the limitations of the special education field, where individual differences are large (Johnson & Kiran, 2014). Recently, research are being conducted to seek the direction of single-subject experimental research methods in the fields of occupational therapy, counseling psychology, social welfare and clinical in the UAE (Al Nuaimi & Safi, 2019).

3. Methodology

To achieve the research objectives, specific research questions were set as follows. First, how do the three types of multi-sensory environment interventions (an environment that maximizes visual stimulation, an environment that maximizes auditory stimulation, and an environment that integrates visual and auditory stimulation) affect the target behavior of children with autism category disorders? Second, how do the three types of multi-sensory environment interventions differ in the physiological response (heart rate) of children with autism spectrum disorders? Third, is there a significant relationship between heart rate and target behavior in a multisensory environment?

Data collection for this study was conducted on a Child Development Testbed at Ajman University. This testbed consists of MSE-Snozelen room, sensory integration room, speech therapy room, small motion recognition room, infant room, and parent waiting room.

3.1. Research Subject

After announcing the recruitment of participants in this study with brief information on multi-sensory environment treatment on the bulletin board of the Dubai Autism Center, parents with children who fall under the autism category were recruited to participate in the study. Orientation was held with the participating parents, and the merits of the multi-sensory environment treatment program were introduced. Instead of providing 4 basic sessions and 18 multi-sensory environment interventions free of charge as part of the study, it explained the matters required to participate at the appointed time during the two consecutive months of the study. It was explained that the multi-sensory environment intervention will be provided in three types, every two weeks, and that the child will participate in this treatment after wearing a smart watch capable of measuring heart rate.

In both basic and intervention sessions, it was explained that a professional occupational therapist with 7 years' experience will be with ASD child one on one. It was also announced in advance that all of the children's actions are filmed for 90 minutes a week (30 minutes \times 3 sessions) held in the multi-sensory environment room. After giving parents of potential participating children enough time to voluntarily decide whether to participate, Parental consent was obtained for the child's participation in the research.

The shortened sensory profile and sensory characteristic background questionnaire were distributed to 4 mothers who were willing to participate in this study. This face-to-face survey was conducted in the parent's waiting room on the testbed and took 30 to 40 minutes per mother. Among these two questionnaires, in the case of the shortened sensory profile, whether or not a score of 150 points or less out of a 200-point scale influenced the final selection of participating children, but the results of the sensory characteristics background questionnaire were collected only. Afterwards, another interview was conducted to determine the target behavior of each child. The behavior to be observed in this study, the target behavior as a dependent variable, should be observable and measurable. The operational definition of target behavior was defined based on the results of the interview between the mother and the occupational therapist of the child and the results of the researcher's observation of each child's daily behavior before starting the experiment.

Two children who met all of the following conditions were selected. First, children under the age of 13 who were diagnosed as DSM-5 autism category criteria by ASD expert, and second, children who received parental consent to participate in this study for 8 consecutive weeks, third, children who scored less than 150 points in the shortened sensory profile and are having more difficulty in sensory processing and integration than normal developing children, fourth, a child who had no experience in the multi-sensory environment snozzlen treatment program before this study. The background information of the final participating child is shown in Table 3 below.

Table 3: Background Information of Children with Autism Spectrum Disorder

	Child A	Child B
Age (Gender)	8 Year 6 Month (Male)	10 Years 4 Months (Female)
Short Sensory Profile Score	124	132
Sensory Characteristic Background Questionnaire	- Visual Hyposensitivity - Auditory Hyposensitivity - Tactile Hyposensitivity - Olfactory Hyposensitivity - Vestibular Hypersensitivity	- Visual Hyposensitivity - Auditory Hyposensitivity - Tactile Hyposensitivity - Olfactory Hyposensitivity - Vestibular Hyposensitivity
Target Behavior	Making meaningless sounds repeatedly	Take anything into her mouth
Operational Definition of Target Behavior	An action that produces a meaningless, non-verbal sound, using one's own voice to produce a sound with a unique tone and rhythm	Take any object in her hand into her mouth and continue to suck, lick with her tongue, or chew with her teeth.

3.2. Single-Subject Experimental Design

A single subject experimental study (SSED) that applied the Alternating Treatment Design (ATD: 2 times Multiple SSED with ATD (A-B-C-D(B+C) steps) as follows was conducted with two participating children with autism spectrum disorder.

- A: Baseline, 4 sessions for 1.5 weeks, 15 minutes per session
- B: Visual stimulation session that maximizes visual stimulation, 6 sessions for 2 weeks, 30 minutes per session
- C: Auditory stimulation session that maximizes auditory stimulation, 6 sessions for 2 weeks, 30 minutes per session
- D (B+C): Integration of visual and auditory stimulation session that maximizes visual and auditory stimulation in an integrated manner, 6 sessions for 2 weeks, 30 minutes per session

Among the single-subject experimental design, data from four baseline session were collected in the infant room, and observations for data collection for the entire session of environmental intervention were carried out in the multi-sensory environment room. The multi-sensory environment room was a 25 m² rectangular room with a width of 5 m, a length of 5 m, and a ceiling height of 3.5 m and was equipped with various multi-sensory equipment for sight, hearing, touch, smell, vestibular sensation, and proprioceptive sensation (Figure 1).



Figure 1: The Multi-Sensory Environment Room at Ajman University (Source: Mahmoud, 2020)

The 20 sensory stimulation factors used in the multi-sensory environment room were as follows: 1) LED spotlight and color wheel, 2) rotating mirror ball and projector screen, 3) water column, 4) water column switch box, 5) palm music mat, 6) light reaction foot mat, 7) Stand wind chime bell, 8) Aroma fan, 9) Audio vibrating water bed, 10) Small beanbag (Diameter: 65cm), 11) Big beanbag (Diameter: 145cm), 12) optical fiber, 13) 3D tunnel, 14) Neon light tube mirror, 15) Visual and audio picture storytelling, 16) Visual sound panel, 17) leaf swing chair, 18) plasma ball, 19) percussion set, and 20) Wi-Fi wireless speakers. Design elements with visual and auditory stimuli were mainly used, but most of them are sensory tools that deal with more than one sensation at the same time.

This study was designed to provide a multi-sensory environment according to the sensory characteristics background of 2 participating children such as Visually stimulating MSE for a participant with hypo-visual sensitivity and Auditorily stimulating MSE for a participant with hypo-auditory sensitivity. Table 4 shows how the 20 elements of visual and auditory environment design were manipulated in order to create a multi-sensory environment in this study.

Table 4: Experimental Environment Operation for Multi-Sensory Environment Intervention Type

Visually stimulating MSE for a participant with hypo-visual sensitivity		Auditorily stimulating MSE for a participant with hypo-auditory sensitivity	
Choosing a stimulating lighting	1) LED spotlight and color wheel	High frequency sound (432-528 Hz) Fast music (110-160bpm)	20) Wi-Fi wireless speakers
Choosing a rotation mode	2) rotating mirror ball and projector screen	Choosing a hard mode	9) Audio vibrating water bed
Making the most of possible visual diversity	3) water column 4) water column witch box 12) optical fiber 13) 3D tunnel	Turning on all features	5) Palm music mat 6) Light reaction foot mat 15) Visual and audio picture storytelling 16) Visual sound panel

	14) Neon light tube mirror		18) Plasma ball
Power off	5) palm music mat 6) light reaction foot mat 7) Stand wind chime bell 16) Visual sound panel 19) percussion set 20) Wi-Fi wireless speakers	Putting it on the floor	7) Stand wind chime bell 19) percussion set
Partially not used	9) Audio vibrating water bed (Turn off vibration mode only) 15) Visual and audio picture storytelling (Turn down the volume only) 18) Plasma ball (Turn off sound mode only)	Power off	1) LED spotlight and color wheel 2) rotating mirror ball and projector screen 3) water column 4) water column switch box 12) optical fiber 13) 3D tunnel 14) Neon light tube mirror

3.3. SSED Procedure

While collecting data for the baseline and interventional stages of this study, the researcher entered the space inside the experimental conditions and observed the behavior of the target child without any special intervention or stimulation (Ward-Horner & Sturmey, 2013). In addition, each session of all research stages consisted of one occupational therapist per child participating in a one-on-one situation (Rakap, 2015).

Level A baseline data were observed during 15 minutes of free-choice activities with an occupational therapist in the infants' room. Targeted behavior observation data were collected over four periods for each child and were conducted for about 1.5 weeks. In the case of interventions B, C, and D, the participating child received more than 30 minutes of environmental intervention per session in the multi-sensory environment room. For each child, there were 6 sessions of B intervention, 6 sessions of C intervention, and 6 sessions of D intervention, for a total of 18 multisensory environment interventions for 2 weeks. For the sensory stimulation elements that were turned on in the session, stimulation was given in a way that an occupational therapist observes when the target child voluntarily approaches and interacts with the desired stimulation elements.

3.4. Methods for Recording Target Behavior

1) Short Sensory Profile (SSP)

Short Sensory Profile is a tool to determine the functional behavior of children who have difficulty in sensory processing and is composed of a total of 38 items using the Likert 5-point scale. (Tomchek & Dunn, 2007). It was developed to shorten the evaluation time in the clinic based on the sensory profile of 125 items. The uniaxial sensory profile consists of a sensory processing area and a behavioral responses area related to sensory processing. This is a standardized questionnaire that can evaluate parents' perception of children's sensory processing and sensory responsiveness. The total score is 190 points, and the lower the score, the more the problem is in the sensory processing ability (Papavasiliou et al., 2011).

2) Sensory Processing Disorder Checklist

Sensory processing disorder checklist is a tool that researchers summarized the sensory processing disorders (Robles et al., 2012). By using terms that are easier than Short Sensory Profile above, the caregiver can easily check how the child is accepting external stimuli. In this study, the sensory characteristics background questionnaire was simplified with a total of 30 examples of six for each of the five categories (visual, auditory, tactile, olfactory and taste, proprioceptive and vestibular sensation).

3) Observation Form

The behavioral observation form was used to record and observe target behavior. The frequency recording method records the number of times a predefined target action has occurred during a specified observation time (Cooper et al., 2019). A 15-second interval recording method was used to record target behavior data in the behavior observation form of this study (Suen & Ary, 2014).

4) Physiological Response Measurement

Samsung Gear Fit 2, a tool that can measure heart rate during physiological reactions, was used in this study. Considering the fact that people with autism tendencies have social, communicative, and verbal difficulties, measuring and understanding their unintended honest bio-signals was one of the objectives of the study for people with autism spectrum disorders. The unobtrusive use of cutting-edge technology can help us to provide an opportunity to communicate with children with ASD (Matson & Nebel-Schwalm, 2017).

During the baseline phase of this study and the multi-sensory environment intervention, continuous real-time heart rate tracking was performed at the same time as observing the target behavior of participating children. Samsung Gear Fit 2 is a watch-type wearable smart device equipped with a low-power wireless sensor. Samsung Gear Fit 2 was developed with wireless support technology that can track steps, calories used, steps climbed, sleep tracking, multisport tracking, and heart rate (Samsung, 2021). Heart rate data for this study was sent from Samsung Clouds to researchers in CSV file format. Samsung Clouds is a cloud-based research platform built to allow researchers to extract data from the Samsung Gear Fit 2 device.

3.5. Data Analysis

Unlike statistical analysis, the method of analyzing single-subject experimental research data is a data analysis method that is frequently used by visual inspection of graphs showing data patterns and slopes (Ledford & Gast, 2018). In this study, the average frequency and range of target actions per minute for each session during baseline A and B, C, and D intervention stages were described. Through repeated measurements over time, it was possible to analyze the patterns of changes in target behavior according to the three types of multi-sensory environment interventions.

In the case of heart rate data collected in Samsung Gear Fit 2, the average and standard deviation of the heart rate for each session per participating child were described. IBM SPSS Statistics 26 was used for statistical analysis. The Scheffè test was used as a one-way anova analysis and a post-hoc test for each group in order to examine whether there is a difference in the heart rate of participating children according to the three types of multi-sensory environment interventions. In the case of the heart rate data collected by Samsung Gear Fit 2, the heart rate skewness of target

child A is -0.31-0.75, the kurtosis is -1.02-1.85, the heart rate skewness of target child B is -0.22-0.97, and the kurtosis is -0.84- It was 1.69. In other words, it was confirmed that the skewness value was between ± 1.0 and the kurtosis value was between ± 2.0 , confirming that the distribution of the quantitative variable received from Samsung Clouds was regarded as a normal distribution (Hoyle, 2014).

4. Analysis

The purpose of this study was to verify the effect of multi-sensory environment intervention, an independent variable, on the behavior and physiological responses of children with autism category disorder, a dependent variable. Therefore, the effect of the multi-sensory environment on the target behavior of the child is investigated. In addition, after analyzing whether the influence on the heart rate of children differs according to the type of multi-sensory environment intervention, it was analyzed whether there is a relationship between target behavior and heart rate in a multi-sensory environment.

4.1. The Effect of Multi-Sensory Environment on Target Behavior of ASD Children

Table 5 shows the average incidence and range of target behaviors per minute according to multi-sensory environment interventions in each participating child in this study. Examining the patterns of changes in target behavior during the baseline and intervention phase, it was found that the multi-sensory environment intervention had a positive effect on both participating children.

Table 5: Average frequency of target actions per minute with multisensory environment intervention

Target Behavior	Session A	Session B	Session C	Session D
	Baseline	Visual stimulation session	Auditory stimulation session	Integration of visual and auditory stimulation session
Child A	1.62	0.64	0.54	0.28
	SD =0.32	SD =0.15	SD =0.31	SD =0.12
Child B	0.86	0.54	0.64	0.32
	SD =0.30	SD =0.24	SD =0.32	SD =0.14

Since target child A had visual and auditory hyposensitivity, environmental intervention for the child after the baseline (session A) is a multi-sensory environment with maximization of visual stimulation (session B), and a multi-sensory environment with maximization of auditory stimulation (session C), and a multi-sensory environment (session D) in which visual and auditory stimuli were integrated and maximized. During the baseline stage, the average frequency of the behavior of target child A making meaningless sounds repeatedly was 1.62 times (range 1.3 to 2.1 times/min), showing a high incidence rate of about once per minute. Afterwards, it decreased to 0.64 times during the visual multi-sensory environment intervention and keep being decreased to 0.54 times during the auditory multi-sensory environment intervention. During the last visual/auditory multi-sensory environment intervention, it significantly decreased to 0.28, the lowest among the three types of intervention, showing a positive behavior change due to the multi-sensory environment intervention (Table 5). This showed that the multi-sensory environment

intervention that integrated the visual and auditory stimuli was the most effective intervention for target child A's target behavior.

Target child B also had visual and auditory hyposensitivity, environmental intervention for the child after the baseline was the same as that of target child B. During the baseline phase, target child B continued to take anything into her mouth about 0.86 times per minute (range 0.4 to 1.2 times/min). However, immediately after the start of the visual multi-sensory environment intervention, it showed an immediate and significant decrease to 0.54 per minute. After that, it had slightly increased with 0.64 times during the intervention of the auditory multi-sensory environment, During the last visual/auditory multi-sensory environment intervention, the lowest rate was 0.32, and the target behavior decreased very stably until the end of the multi-sensory environment intervention (Table 5).

4.2. The Effect of Multi-Sensory Environment on Heart Rate of ASD Children

In general, the heart rate is about 130 to 150 bpm at birth, but gradually decreases to 70 to 130 bpm at the age of 10 (Rhoads, 2020). In addition, heart rate variability is affected by age or gender (Bennett, 2020).

One-way anova analysis and a post-hoc test were performed to determine whether there was a difference in heart rate according to the intervention type in the multi-sensory environment. All participating children were found to be significant, and it could be said that there is a difference in the average heart rate for each child according to the type of multi-sensory environment intervention (Table 6).

Table 6: Differences in Heart Rate of Target Children by Multi-Sensory Environment Types

Child A				Child B			
Intervention Type	Session	Range (bpm)	Average (bpm)	Intervention Type	Session	Range (bpm)	Average (bpm)
Visual stimulation session	Visual 1	78-134	95.42	Visual stimulation session	Visual 1	96-137	107.64
	Visual 2	78-128			Visual 2	81-132	
	Visual 3	78-130			Visual 3	94-124	
	Visual 4	71-113			Visual 4	93-126	
	Visual 5	72-110			Visual 5	90-134	
	Visual 6	72-108			Visual 6	90-136	
Auditory stimulation session	Auditory 1	72-116	92.13	Auditory stimulation session	Auditory 1	93-124	111.43
	Auditory 2	78-120			Auditory 2	95-149	
	Auditory 3	71-114			Auditory 3	94-126	
	Auditory 4	78-123			Auditory 4	101-158	
	Auditory 5	76-110			Auditory 5	92-136	
	Auditory 6	80-118			Auditory 6	94-138	
Integration of visual and auditory stimulation session	V+A 1	70-116	97.56	Integration of visual and auditory stimulation session	V+A 1	90-156	112.21
	V+A 2	78-134			V+A 2	97-138	
	V+A 3	74-132			V+A 3	92-137	
	V+A 4	68-116			V+A 4	92-134	

V+A 5	84-144	V+A 5	96-144
V+A 6	82-140	V+A 6	90-139

Multi-sensory environment during all interventions, the range of minimum heart rate per minute of child A was 68-84 bpm, and the range of maximum heart rate was 108-134 bpm, and the range of heart rate per session was as shown in Table 6. Target child A had the lowest average heart rate during the auditory environmental intervention (Mean=92.13, Standard Deviation=4.92). The average heart rate during the visual environmental intervention (Mean=95.42, Standard Deviation=4.17) was relatively high, and the heart rate during the visual/auditory integrated environmental intervention (Mean=97.56, Standard Deviation=5.08) was the highest, and all were significantly different. It was found that there is a clear difference in the heart rate of target child A according to each type of environmental intervention. (Auditory < Visual < Integration of Visual and Auditory).

During the multi-sensory environment intervention, the minimum heart rate per minute range of child B was 81-101 bpm, and the maximum heart rate was 124-156 bpm as shown in Table 6. In case of Child B, it was found that the average heart rate during the visual environmental intervention (Mean=107.64, Standard Deviation =3.22), the auditory environmental intervention (Mean=111.43, Standard Deviation =4.97), and visual and auditory integrated environmental intervention (Mean=112.21, Standard Deviation =3.781) Regarding target child B, slight heart rate increase was found from visual environmental intervention to visual/auditory integrated environmental intervention (Visual < Auditory < Integration of Visual and Auditory).

5. Discussion

This study aims to prove the effectiveness of multi-sensory environment intervention designed based on the sensory characteristics of children with ASD and the result was consistent with previous studies to prove the reduction of negative behaviors of children with ASD via multi-sensory environment therapy. However, in the United Arab Emirates, where children diagnosed with autism spectrum disorder are rapidly increasing, Empirical studies on multi-sensory environments are very insufficient compared to the United States and Europe. Therefore, it was hoped that this study will be the beginning of experimental research from the perspective of interior architecture design and a basic study on spatial environment design for the children with autism spectrum disorder.

6. Conclusion

This study has shown that experience in a multi-sensory environment is effective in reducing negative repetitive behaviors in daily life of children with autism spectrum disorders. In particular, visual/auditory integrated environmental intervention had a very positive effect on the target behavior of children with visual hyposensitivity and auditory hyposensitivity.

In this study, it was statistically proven that there are obvious differences in heart rate of children with autism spectrum disorder according to the three types of multi-sensory environment interventions (visual environmental intervention, auditory environmental intervention, and visual and auditory integrated environmental intervention). However, the change in heart rate in a multi-

sensory environment could not be concluded with the same effect as the reduction in target behavior. Our autonomic nervous system, including the heart rate, constantly adjusts physiological processes to the surrounding environment. Unlike electroencephalogram (EEG) or iris recognition, which requires a separate time and space to be measured after wearing the device, heart rate is a recently simple device that allows natural real-time measurement at the same time as other activities. In this study, the fact that the heart rate of a participant is related to his emotions rather than the habitual target behavior shows that the measuring tool of this study should not be limited to simply monitoring the heart rate. It is necessary to discuss how the heart rate can be used as a medium to understand their needs and communication with individuals belonging to the autism spectrum who have social communication and language difficulties.

It is necessary to provide a multi-sensory environment after grasping each individual's sensory profile with the measurement tools used to select the subject of this study, i.e., a short sensory profile and a sensory characteristic background questionnaire. Therefore, this study will serve as a basic data to remind you that one of the important aspects of multi-sensory environment therapy is the flexibility of spatial design that can provide customized environments according to each user's sensory needs.

If any children have ASD, similar to that of the children in this study, sensory stimulation experiences through periodic exposure to multi-sensory environments to improve their quality of life is strongly recommended. Since it is extremely difficult to experience the level of sensory stimulation in a multi-sensory environment in daily life, it is highly desirable to provide optimal level of arousal spatial experience to children with hyposensitivity by reflecting the experimental environment stimulation of this study as much as possible.

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The Effects of Call Centers on Language and Culture: Morocco as a Case

Mohammed Adli^{1*}

¹ High Institute of Technology, Mohammed First University Oujda, Morocco

*Corresponding Author: m.adli@ump.ac.ma

Abstract: *Nowadays, call centers all over the world tend to play a crucial role in the business environment. They create new work opportunities for millions of operators or agents across the globe and they serve as a primary customer-facing channel for companies in different countries. Call centers seem to have gained considerable acceptance in different parts of the world because their main aim is to provide their customers with a sense of satisfaction before and after sales. The present paper will attempt to briefly examine the history of call centers in general and some of the reasons behind locating them in Morocco in particular. The paper will also try to shed much light on the working conditions and the operational challenges faced by call center agents. The big focus will be put on the various problems encountered by the Moroccan staff with regard to their native culture, identity and language.*

Keywords: Call Center Definition, Location Factors in Morocco and Identity-Cultural Constructions

1. Introduction

In a market that is characterized by high and daily technological changes of customer requirements, companies find it obligatory to reduce costs and ensure quality in the shortest times. Today, the call centers, which are created in different parts of the world, are benefiting from the outsourcing business thanks to the guarantee of high technological flexibility. All actors of economy agree that managing customer relationships on the Internet (CRM) have become a major market on the Web, and that technology is, nowadays, regarded as one of the most important means of communication. Currently, there is about 80% of potential buyers on the Internet who avoid a pending purchase simply because they are not able to solve a number of problems that they may encounter. The best solution to provide a customer with a sense of satisfaction before and after sales is the call center or contact center.

Recently, Morocco has witnessed the implementation of a number of call centers. Big French companies have decided to take advantage of various facilities that some African countries such as Morocco provide like cheap labor, the excellent telecommunication networks as well as the openness to foreign cultures. However, a close look to the imperatives imposed on the Moroccan employees reveals that this type of work requires some attention.

1- Call Center Definition:

During the past decade, the influence of technology on the relationships between companies in both the public and private sectors has dramatically increased. Nowadays, it is widely noted that most companies all over the globe heavily rely on the use of different types of technology to manage their businesses and to get in touch with their customers, whether through business to business or in terms of company-customer relationship. The call center industry, which depends on different developed tools of technology, is playing a central role in changing the face of business throughout the world. Moreover, the integration of these types of technologies seems to have a significant impact on economies and the way companies conduct business with their customers. In line with this fact, Duane E. Sharp argues that “call centers require the integration of several different technologies to maximize the use of information and to streamline the activities of call centre operators.”¹

Certainly, the adoption of various developed tools of technology has resulted in the development of numerous features that have enhanced the positive role of call centers. Moreover, technology tools have also improved the way customer service representatives (**CSR**) interact with their customers. This is what Sharp believes when he notes that

Technology provides many features to assist in the communication process, including providing quick access to customer information for the CSR and call management (transfer, voice response, messaging, etc).²

Building on this fact, the computer and the telephone, referred to as **CTI** (Computer Telephony Integration), are two of the major and most familiar means of technology that have contributed to making call centers more efficient and productive. When available and properly used, together with good and highly motivated agents who can satisfy customers and appropriately respond to their customer inquiries, the benefits to both customer and company are undeniable. In this respect, Sharp asserts that

Computer telephony was developed specifically to integrate these two technologies to enable more effective and productive communication between companies and their customers. CTI is best viewed as a loose but complicated amalgamation of interlocking technologies.³

Traditionally, sales representatives used to suffer a lot to contact their customers; they typically travelled or visited them in their offices, but this way quickly proved to be very expensive and sometimes inefficient. Soon, it was realized that the customer call center could solve the problem and provide efficient services around the world. For example, the telephone conversation between a customer and a professional agent was found to be more preferable to any other form of marketing. Nowadays, most companies use the call center as a point of access to their sales and are closely connected to direct marketing. In this context, Andrew J. Waite reveals that

¹ E. Sharp, Duane. *Call Center Operation: Design, Operation and Maintenance*. (New York: Digital Press, 2003) p.1

² Sharp, *Call Center Operation: Design, Operation and Maintenance*. p.5

³ Sharp, *Call Center Operation: Design, Operation and Maintenance*, p.2

Busy medical practitioners prefer a telephone call to an office visit, if the call is from a knowledgeable telephone salesperson or account service person. The contact is faster, often more frequent, more effective and less expensive for all parties concerned.⁴

The first call center dates back to 1973. It was created “as a joint venture between what is now Rockwell Electronic and Continental Airlines.”⁵ Airlines companies were the first ones to use call centers because they were interested in selling airplane tickets. Later on, it was discovered that many other firms can benefit from the big role of call centers in helping customers conduct business transactions with them. Call centers and the facilities they provide have been established in almost all industrialized areas, because they play a central role in meeting the needs of their customers. Natalie Calvert makes reference to this fact when she states that

Indeed, customer service is now a global proposition that can be delivered anywhere and many organizations require advice around realizing the investment in their contact centre in terms of enhanced customer service.⁶

Before going into details, I find it of paramount importance to give a brief definition of what we mean by call centers. Numerous studies have contributed to giving a proper and suitable definition for the word. Brad Cleveland, for example, who is an expert in customer strategy and management states that the call center or contact center can be defined as

A coordinated system of people, processes, technologies, and strategies that provide access to information, resources and expertise, through appropriate channels of communication, enabling interactions that create value for the customer and the organization.⁷

Interestingly, Call centers, often called contact centers, tend to provide help for customers who may try to reach a company via multiple channels such as email, web chat, phone, fax or Voice over Internet Protocol (see Durr, 2001). These channels represent multiple entry points of access and provide agents with the required information through an integrated system to answer their customers in the right time. Moreover, call centers have become an important part of any business that deals frequently with customer queries. All agents keep receiving orders and delivering answers to customer questions. However, to achieve this aim successfully, customers have several issues to consider in their daily relationships with regard to decreasing customer waiting times and improving customer access. In an attempt to clarify this idea, Sharp tries to show that call center agents need to make information accessible on their screens at any time, from anywhere, in any form and for free. For him,

⁴ J. Waite, Andrew. A Practical Guide to Call Center Technology: Select the Right Systems for Total Customers Satisfaction. (New York: CMP Books, 2001) p.13

⁵ Durr, William. Navigating the Customer Contact Center in the 21st Century: A Technology and Management Guide. (New York: Advantare Communication Inc, 2001) p.11

⁶ Calvert, Natalie. Gower Handbook of Call and Contact Centre Management. (England: Gower Publishing Limited, 2004) p.xxi

⁷ Cleveland, Brad. Call Center Management: Succeeding in the New Era of Customer Relationships. (New York: ICMI, 2012) p.16

It is no longer sufficient for customer representatives to depend solely on reference books when trouble shooting or assisting customers. They need to have customer information available immediately and presented on their computer screens.⁸

Generally, call centers seem to be fascinating workplaces because they are growing at a very high rate every year globally. However, to achieve call center operation success, it has been proved that much light should be shed on three important elements, which are regarded as the core of call centers. These elements are: People, Process and Technology.⁹

As a matter of fact, human resources are always considered as the most important element of a company. In the case of call centers, when a skilled agent interacts with a prospective customer and is highly motivated and well supported by the right technology and management processes, it can be safely claimed that products will be quickly and easily sold, profits will happen and problems will be identified as a first step towards resolution. This fact is clearly stated by Jon Anton, Vivek Bapat, et al., when they confirm that

Perhaps the most significant issue on the people side of the call centre environment is determining whether to use skill sets of the specialized agent, or to use universal agents. The Purdue survey showed that more than two-thirds of call centers surveyed still use universal agents as opposed to specialized ones.¹⁰

The second element is that of Process. The latter also plays a significant role, in that the call centre team or agents must have their business processes as well as management processes well-defined and clearly understood. More importantly, process inside also means that agents must have all pieces of information present and available on their screens once they are in need of them. Following this fact, Durr points out that

The call centre management team must have its own management processes in place, well- defined and clearly understood by everyone in the centre. The management team also needs to have business processes clearly defined and understood by everyone in the centre and everyone that the centre interacts with in the extended enterprise.¹¹

As for the last element, it must be confessed that, in recent years, advances in technology tools have resulted in many changes inside the call center industry. Accordingly, call center operators are supported with numerous options for the sake of satisfying the different needs of customers wherever they are and whenever they wish. In this regard, Jon Anton, Vivek Bapat, et al., argue that “the call centre today that has many different callers with different problems needs to strive

⁸ Sharp, Call Center Operation: Design, Operation and Maintenance, p.4

⁹ Durr, Navigating the Customer Contact Center in the 21st Century, p.8

¹⁰ Anton Jon, Bapat Vivek and Hall Bill. Call Center Performance Enhancement: Using Stimulation and Modeling. (New York: Purdue University Press, 1999) p.4

¹¹ Durr, Navigating the Customer Contact Center in the 21st Century, p.8

to create universal agents- agents that, with the help of technology can handle any caller's request."¹²

In fact, it can be safely claimed that when processes are clearly stated and the agents are well trained and highly motivated, the big focus will be put on technology because too little of it or a wrong use of it will yield negative results. Certainly, there is a wide range of technologies available to the call centre team, as well as many sources of excellent advice-consultants, vendors and supervisors. These technologies can involve many components like:

- Computer telephony integration (CTI)
- Networking hardware
- Automated call distribution (ACD) facilities
- Software¹³

2- Location Factors:

Interestingly, it should be mentioned that many organizations, nowadays, are seeking to outsource their call centers overseas and locate them in other areas, especially ex-colonized countries. However, there is a number of key factors that should be taken into account while looking for the suitable destination. These factors can be summarized as follows:

First, the availability of advanced telecommunications, in terms of telephone system, computer system, Interactive Voice Response (IVR) and voice mail suitable for data and voice transmission and capable of dealing with intelligent network services. In addition to this, telecommunication costs will, of course, be taken into account particularly when the call center is going to be located in several countries. In line with this fact, Durr confirms that

Most contact centers include a telephone system for a voice processing, a computer system (either a mainframe-terminal configuration or personal computers linked into a local area) and furniture for the telephone representatives. Obviously, your contact centre may also include IVR, voice mail, workforce management software, and so on.¹⁴

Second is a labor cost. The call center requires agents who are supposed to be sufficiently skilled to carry out the particular tasks required in the locating firm of the call center, taking into account that the agents may work from 8 to 12 hours a day and, therefore, they need to be well paid and well supported in order to operate different shifts. Of course, skills will vary depending on call center activities. Essentially, Morocco seems to have a fairly large labor force. It is even claimed that almost half of the Moroccan population can speak French and, consequently, a big number of young Moroccans would show acceptance and readiness for being employed in the ICT service industry. Admittedly, most organizations are looking at Morocco to serve mainly French-speaking customers located in France. It should be stated that the cost of doing business is still relatively low in Morocco in comparison with many western countries. To put it simply, labor costs will be

¹² Jon.et al, Call Center Performance Enhancement: Using Stimulation and Modeling, p. 24

¹³ Durr, Navigating the Customer Contact Center in the 21st Century, p.33

¹⁴ Durr, Navigating the Customer Contact Center in the 21st Century, p.151

considered as a key factor for the implementation of call centers in some areas. In this regard, Buchanan and Koch-Schulte argue that

Labor costs comprise the great majority of call center operating expenses and can range between 60-80 percent, depending on the type of the centre. Therefore, the quantity, quality and most importantly, cost of labor in any given location will play a significant role in the firm's location.¹⁵

The third factor is related to the availability of a suitable property with low occupancy costs in terms of rents, rates, servicing and parking. Firms tend to give much importance to call center size, because it is believed that "Customer call center sizing often influences the location of a customer call centre and becomes an important issue in choosing a location".¹⁶ More importantly, the size of the call center does not only focus on the property itself, but also on the right number of agents required, computer systems, intelligent networking as well as other facilities. This is what Sharp explains when he mentions that

The size of the call center refers not only to square footage, but also to the number of CSRs required, telephony and LAN equipment, client desktops, and other switching and computer hardware. Because call centers usually grow in size, it is a sound planning practice to choose a site with room for expansion.¹⁷

In Morocco, many cities such as Casablanca, Rabat, Marrakech and Oujda seem to have had considerable success in promoting call centers in city center locations. This is thanks to the fact that Morocco is giving much importance to call centers by opening up to foreign investments and by taking many steps to create an investor-friendly business climate such as the creation of free-trade zones.

As for the fourth factor, it has to do with the economic and geographic factors. Being close to Europe, especially France and Spain, Morocco has been considered as one of the most attractive countries in North Africa to deal with this type of services (see Richardson and Gillespie, 2003). More significantly, it is generally claimed that most young Moroccans are educated and can speak French and, as a consequence, would be glad to join call center sectors.

Clearly, call centers can be attracted to some destinations like Morocco as most companies seek to take advantage from the factors mentioned earlier. Moreover, the presence of such centres implemented in some Moroccan cities may suggest that they have the potential to create a range of benefits for these regions. These benefits can be discussed as follows:

First, and most obviously, call centers create employment. In the city of Oujda, for example, a large number of jobs have been created over a comparatively short period of time. As most of the

¹⁵ Buchanan, R. and S. Koch-Schulte 2000. 'Gender on the line: Technology, Restructuring and the Reorganization of Work in the Call Center Industry', Report for Status of Women in Canada, available from Status of Women in Canada, Ontario, Canada p.5

¹⁶ Waite, A Practical Guide to Call Center Technology, p.60

¹⁷ Sharp, Call Center Operation: Design, Operation and Maintenance, p.6

customers of call centers, if not all of them, are French, the need for a number of young Moroccan agents who can speak French fluently and deal appropriately with these customers has become a necessity.

Second, call centers bring new technological investments to the region where they are created. It is not surprising, then, to say that some Moroccan cities such as Oujda or Fez could have generated such development, nor other forms of investments could have taken place during this short period of time without call centers.

Third, call centers have the potential to bring new types of employment to these regions. Earlier, the eastern region of Morocco, for example, has not had much to do with the private sector office employment. However, with the implementation of call centers in Oujda, many young employees have realized that similar types of jobs could also exist in their area.

Fourth, and related to the two previous points, the nature of work inside call centers helps Moroccan agents to improve their skills relating to business and marketing such as communication skills, team working skills, customer service skills and even pick up product knowledge quickly. Furthermore, the majority of call centers try to improve the performances and qualities of their agents. This can be illustrated in the fact that a big number of firms have started to give much importance to training programs and develop many of their schedules. Their main aim is to help their staff to meet the needs of their customers. This point is illustrated by Sharp in the following way

Once CSRs have been hired and properly trained, retaining them is just as important as retaining customers. Customer service representatives need to be kept up to speed on support methods, products and processes (...) so that agents can satisfy customers in the best manners.¹⁸

As for the fifth point, it is also of great significance, in that call centers can bring a new work culture to an area. Of course, this is not something unproblematic. There are many important points that will be mentioned later, concerning the deficiencies caused by the work culture inside call centers, especially with regard to the new methods of worker exploitations. However, it may also be said that these new management methods, together with exposure to customers from different areas and cultures, can play a crucial role in the exchange and modernization of the work cultures between countries.

The last benefit is that call centers tend to create new work opportunities not only for men, but for women as well. In Morocco, women are now playing a major role in the society. They participate in different domains, including the private sector. In fact, there is a large group of women who have benefited from this opportunity of working in call centers and, therefore, the provision of work for this category of people may help eradicate the outflow of the youth, a problem which has affected so many regions.

¹⁸ Sharp, Call Center Operation: Design, Operation and Maintenance, p.7

3- Identity and Cultural Constructions

However, it should also be mentioned that there is a number of problems and shortcomings that are closely associated with call centers employment, and which may limit the contribution of these centers to the development of the region. The first and most significant problem to start with pertains to the low quality of the employment created. In fact, the experience of the call center called **ADM**, which is located in Oujda, or that of **WEB HELP** located in Rabat, for example, suggests that such regions may be able to attract only a limited range of call center activities. As a matter of fact, most call centers around the world believe that their operators have a difficult and complex task to do. This is why most of them require that their agents must be well trained, highly motivated and skilled enough so that they would be able to satisfy the needs of their customers. Nevertheless, a close look at the implementation of these web center companies in some ex-colonized countries like Morocco reveals something different. For the majority of them, agents do not necessarily need to have a high level of competencies with regard to their performances and language and, therefore, it may be safely claimed that this fact is one of the reasons behind the low type and bad quality of interactions that exist between Moroccan agents and French customers. In this endeavor, Durr explains that

In the vast majority of contact centers, an agent's role is complex and difficult. A very large and diverse skill and knowledge set is required before an agent masters the job. Mastery is defined as the ability to achieve acceptable levels of performance (productivity and quality) without excessive effort or stress-nothing superhuman.¹⁹

The second problem is that Moroccan agents who work inside call centers are forced to change their real names by western ones during their interactions with customers. The reason behind this fact is to try to convince French customers that the agents with whom they interact are French calling from France. Definitely, the name of a person is closely connected to him or her because it is a part of his or her identity, and consequently, changing it under any circumstances can cause a lot of harm. A. Giddens tries to make reference to this category of agents who feel obliged to make divisions between two identities. For him, "all human beings, in all cultures, preserve a division between their self-identities and the performances they put on in specific social context."²⁰

Another serious problem is that Moroccan agents are not allowed to use their mother tongue inside these centers; only French or other foreign languages are accepted. Undoubtedly, language plays a significant role not only in one society, but in all societies as well because it is a part of people's everyday life. Moreover, language is regarded as an important tool of communication because it shapes, on the one hand, the individual characteristics and, on the other hand, the beliefs and values of his or her community. Following this fact, John Edwards argues that "languages are best seen as different systems reflecting different varieties of the human condition."²¹ However, with the case of call centers located in Morocco, things seem to be different.

¹⁹ Durr, Navigating the Customer Contact Center in the 21st Century, p.136

²⁰ Giddens, A. Modernity and Self Identity: Self and Society in the Late Modern age. (Cambridge: Polity Press, 1991), p.58

²¹ Edwards, John. R. Language, Society and Identity. New York: (Basil Blackwell, 1985), p.19

As a matter of fact, Moroccan agents are obliged to put aside their native language and replace it by French. It should be noted that although Morocco, for example, is known to be a predominantly French speaking country, most western critics of off shoring have expressed their dissatisfaction towards the bad quality of Moroccan service. For them, some Moroccan operators are still unable to speak good French and defeat language barriers while interacting with their French customers. In addition, they have discovered a lot of problems with the issue of quality and type of service provided. This is particularly an acute problem in Moroccan call centers, where agents must interact directly with customers from Europe. So, to overcome these obstacles, call centers in Morocco are often subjected to intensive trainings to help their agents adapt their accents to sound more pleasing to their western customers.

Certainly, since Moroccan agents are using French in their everyday conversations with French customers, they have become accustomed to speaking foreign languages even outside call centers, with their friends and their children in their homes, which may lead to the deterioration of their native language and religion.

The fourth problem which is also very important is the fact that Moroccan operators are not allowed to benefit from the official holidays of their country, but rather they can benefit from the official holidays of France. In other words, all the religious, local or national celebrations of Morocco are days of work for young Moroccan agents. For many critics of off shoring, this strategy may have, in the future, a big impact on Moroccan agents because it may lead to the deterioration of their identity and culture.

The fifth concern is closely connected to agents themselves, who seem to be offered only a limited amount of career development. In fact, promotion opportunities are very limited. Further, call centers provide employment for thousands of young Moroccans most of whom have decided to quit their studies. It should be stated that these centers can disappear overnight and leave many employees without work, without a diploma that would help them look for another job, especially if we take into account the fact that these people do not have enough experience to try an alternative apart from telemarketing.

The last problem I wish to shed light on is about health problems that many Moroccan employees suffer from. Generally, a growing number of Moroccan staff complains of stress, panic attacks, depression, relationship problems, alcoholism and eating disorder. This is due to a number of constraints and limitations related to the bad conditions in which they are indulged. It should be noted that despite these working conditions, Moroccan agents are supposed to be kind and friendly even with rude French customers. In other words, agents have to cope with the call center culture and endure it because the main aim is to satisfy customers before and after sales. In trying to clarify this idea, Tustin points out that

The greatest source of stress comes from having to resolve the dichotomy between the organization's demand for both efficiency (in terms of volume of work) and service (in terms of quality of work) without any clear guidance about

what is the organization value. Although management rhetoric emphasizes the value of service, call center employees are evaluated in terms of efficiency.²²

What is even worse is that the staff working in call centers seems to have no social life at all since they are hardly able to exchange more than a few words with their families and hardly able to spend any time with their friends on weekdays. In fact, most of them are not even able to read the newspaper or watch any important programs on TV because they are most of the time moody and depressed. Despite all the problems encountered by young Moroccan workers while doing their jobs, they are forced to cope with them and endure. To put it simply, they are supposed to leave their social problems behind their families; otherwise it would be considered as a sign of weakness in their personalities and performances.

Conclusion

Nowadays, the general claim that is inquired for is whether, as stated by some scholars, academicians, media analysts and policymaking experts, call centers can be thought of as a continuous development of the spirit of innovation and modernity that Morocco itself calls for. Other studies are also concerned with the discussion of the issue that call centers can be viewed as an outcome of a series of deprivations and aspirations of young Moroccans, or as another form of colonialism. However, it would be unreasonable, in spite of all these drawbacks, to suggest that countries like Morocco, which are capable of attracting call centers, should not seek to do so.

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²² Tustin, Nupur. "The Cost of Shift Work on Employee Health and Performance: Can Organizations Afford to Ignore the Consequences?" Routledge, *India Review*, Vol.9, no.4, October-December, 2010.pp.425-449

The Perception of Compassion among Late Adolescence in Thailand

Komsan Raxsiri^{1*}, Alisa Songsriwittaya²

¹ Learning Innovation and Technology Program, Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

² Faculty of Industrial Education and Technology, King Mongkut's University of Technology Thonburi, Bangkok, Thailand

*Corresponding Author: Komsan.phd@mail.kmutt.ac.th

Abstract: *One of essential goals of Thai education system is to instill and foster morals and ethics as the foundation of internal qualities for students and to enhance their ability to apply competences or desirable characteristics such as compassion in order to cope with situations, environment, and various contexts in society, both directly and indirectly. The purpose of this study was to investigate the characteristics that are associated with compassion and affect the development of learning model that promote compassion among late adolescents. A questionnaire was used as a research instrument to collect data from 330 Thai students who enrolled in the high schools under the Office of the Basic Education Commission, Office of Vocational Education Commission, and under the Ministry of Higher Education, Science, Research and Innovation, along with in-depth interviews. Most of the results showed that empathy was the most connected to compassion in such a way that we have a genuine and deep understanding of the feelings of others. In the future, the results of this research will be used to synthesize, design and develop learning activities or framework that promote compassion among late adolescents.*

Keywords: Compassion, Perception, Late Adolescence, Empathy

1. Introduction

The National Education Act 1999, Chapter 1, General Provisions, Aims and Principles, Section 6, states that education management must be for the development of Thai people to be complete human beings in body, mind, intellect, and knowledge, and morals, ethics and culture in life, and can live with others happily. These are considered as the cornerstones of human development to have potential and competencies that are ready along with the foundations of mind, morality, and ethics through learning management that facilitates and encourages learners to learn on their own. This is consistent with Section 4, Guidelines for Education Management Section 22. Educational management must be based on the principle that all learners are capable of learning and self-development and consider the learners the most important. The educational management process must encourage learners to develop naturally and to their full potential according to Section 23(1) of the education management, both formal, non-formal, and informal education. Promotion must emphasize the importance of knowledge, morality, learning process and integration as appropriate for each level of education in terms of knowledge about one's self and one's relationship with society such as family, community, nation, and world society. It can be seen that the management of education in all systems must focus on the process that fosters morality from within oneself to

others and expanding to a larger and wider society by means of creating a comprehensive knowledge.

Early education began with parenting (Baumrind, 1971, cited in Dulya C., 2009) and from observations of children's behavior at home and at school. Baumrind analyzed the two dimensions of parenting behavior components: 1. Controlling/Demand: Parents set standards and demand that their children follow established standards, which may be high or low, and may or may not exercise their influence to control the child. 2. Responsive dimension is how parents respond to the child's needs for acceptance, empathy, and responsiveness, as well as giving them the opportunity to try to think and decide to do things for themselves while some will ignore and deny the child's needs. The control dimension and the responsiveness dimension are diverse and supportive and factor into the systems that enable competition to survive on the viewpoint of a better quality of life. This comes from fears of having a difficult life or poor quality of life, such as competing for entrance exams in kindergarten to competitive exams to get a job. These are defined as social mechanisms and altering compassionate behavior to fade away. A state of thirst for victory will begin to take its place. Human beings have the instinct to do whatever it takes to get what they want. This is deeply rooted in instinct and is used in situations and contextual activities in life to forget compassion for others. When the forgotten instincts arise along with the tactics that have the factors of causing suffering to others, a variety of problems arise in society. There are many situations of chaos in society in many contexts. There are interrelated factors that can cause mild to severe effects, both positive and negative, causing both happiness and unhappiness. The basis of happiness lies in suffering and moves through a filter called wisdom to lead the way of healing that suffering through understanding and accessing the feelings of others.

Thai education aims to instill and nurture morals and ethics as an internal basis for human beings at all levels of study through activities and courses from early childhood to adolescence, which is often the age when the term transitional is used in life the most. The development of adolescents in psychology divided adolescents into 3 periods: 1. Early adolescence, 11-13 years old, is a period of dramatic changes in all systems of the body. Teenagers have significant weight and height gains and rapid growth, especially in the neck, arms, legs rather than the torso, making them feel annoyed. The growth and enlargement of the body in each part may not occur at the same time. Girls enter puberty 1 to 2 years earlier than boys. The effects of rapid physical changes can have a huge impact on the mood of a child this age. These show the characteristics of mood swings, confusion, sensitivity, mood fluctuations, instability and be able to see all kinds of mood characteristics including anxiety, irritability, obsession, dissatisfaction with changing shapes, fear of physical dysfunction, anxiety about heightened sex drive, and sexual behavior, fear of maturity, fear of responsibility, and sometimes wanting to be a child, sometimes wanting to become an adult. In social change, friends are important people for teenagers. This age likes to hang out with friends of the same sex. Adolescents want to be accepted by their peers, want independence, and be themselves. Adolescents will choose to have friends who are similar to themselves. Having the opportunity to make friends with both males and females can help adolescents learn to fit into their gender-appropriate roles and help them feel secure in their own masculinity or femininity. Adolescents are very important to their friends. Sometimes adolescents trust and listen to their friends more than their parents, but if they have been close to or have a deep respect for their parents since childhood, the conflict that arises between parents and adolescents will be less intense

because adolescents have a strong bond with their parents. 2. Middle adolescence, 14-16 years old, at this age, the physical development is not much changed as in the beginning. Adolescents will be able to accept the changing physical condition of their youth. Emotionally, the mood was smoother than in early adolescence. Most of the changes during this period were intellectual development and social change. 3. Late adolescence, 17–20 years of age, full body transformation, mature, confident, and satisfied with their appearance. Late adolescence is a time when one feels independent and independent from feelings of being dependent on or under parental supervision. The conflict in the middle of adolescence turned into an understanding of love and goodwill. Suggestions from parents have returned to increase the importance and appreciation of parents towards teenagers. This is the time of professional training, deciding to choose a suitable career, and it is a time for intimacy with friends of the opposite sex. Physical condition changes, full maturity and legal maturity, intellectual development according to Piaget's theory. This adolescence begins to enter Formal Operational Thinking, meaning abstract thinking, conceptualization, reasoning, imagination, ideals, ideologies, and their own philosophy of life. At the same time, they are self-confident, inflexible, and pursuing their own identity for individuality. Teenagers at this stage try to overcome the childish feelings of attachment and wanting to depend on their parents. The virtues developed during this period will make adolescents have the idea of doing good deeds with their own common sense, not because of praise or fear of punishment such as childhood anymore (Nantawan Y., 2009). It can be seen that the late adolescence is a period that clearly develops physically and intellectually, and is the period in which causal and abstract analysis can be performed. Even at an age where self-confidence is low, but at the same time, they want to be themselves, want to think for themselves, use cause, use results, and learn about things themselves. This is an ideal age to foster moral qualities as it marks the transitional pathway to prepare for adulthood.

From the foregoing, it can be seen that human beings have a selfish instinct within which may be the direct and indirect effect of cultivating the family and the environment in order to obtain a good quality of life and things, desires that cause human beings to lack the traits of compassion for others. In order for such characteristics to be manifested in humans, it requires a formal form of casting, and this form of forging should be incorporated and incorporated into teaching and learning activities in educational institutions. The quality of mercy is not strain'd, It droppeth as the gentle rain from heaven, a royal thesis translated from the story of The Merchant of Venice in King Mongkut's reign of King Rama VI, has implications that imply that compassion is something that cannot be forced whoever has or can force it to happen to anyone. It must be touched and made by itself from within. When it arises, it brings joy and peace to others.

Purpose of study

To study perception of compassion among late adolescents.

Research Question

What are the attributes associated with compassion and how it affects the development of learning styles that foster compassion among late adolescents?

2. Literature Review

Compassion is derived from the Latin word for suffering, but with the changing time of culture and communication, the translation has changed. Suffering does not require any impulse for us to feel. Suffering is closely related and linked to compassion (Eisenberg, Van schyndel & hofer, 2015), which also requires perception and access to the mind of another person. It is the understanding of emotions and feelings, communication that shows understanding of others, intelligence, the ability to understand the inner state of others, and the perception of emotions with others. Compassion is a woven response to pain, sorrow, anguish, compassion, compassion, generosity, acceptance, courage, patience, and peace on mercy with an openness to the truth of suffering and a desire to heal. The Dalai Lama said that if you want to know what compassion is, you should look into the eyes of a mother or father as they raise a sick and feverish child (Feldman & Kuyken, 2011). Compassion has evolved a behavioral trait designed and developed to control the negative effects of changes. Compassion is seen to be sourced for bonding and engaging in behavior, collaborating for group survival as empathy, and deep awareness of one another coupled with desire to alleviate it (Gilbert, 2010). Compassion leads us to treat all people with fairness, equality, and respect. Compassion also leads us to realize that all life is one with the world, inseparable by human guardianship. Compassion should be a contribution to the principles and practices of lifelong learning (CoED, 2018). Compassion was influenced by historical and cultural periods that shaped the idea of human potential and development. There are factors and elements that respond to each other. 1. An awareness of suffering where awareness leads us to perceive pain and imbalance. 2. An emotional concern driven by suffering and a willingness to gently touch the hearts and affections of others. 3. The desire to help alleviate suffering, especially by helping to find the causes and conditions that cause suffering. 4. Responses to relief through inspiration or behavioral stimulation (Jinpa & Weiss, 2013). Compassion must consist of both wisdom and compassion. We must understand the nature of suffering. What we desire to help others is wisdom and it requires a profound empathy, which is loving-kindness. In Buddhism, understanding the nature of suffering under wisdom is to understand that suffering is part of being human. Suffering is a common human experience and a collective picture. Compassion is part of mindfulness therapy (Dalai Lama, 2009). Accessing our sublime states of mind which is the dharma of the noble heart is the principle of conduct that is noble and pure; Loving-kindness is love and desire for others to be happy, have goodwill, and think of benefiting others in general. Compassion is compassion, wanting to save others from suffering, healing others' suffering. Sympathetic joy is joy when others are well-being, their minds are always happy when they are well or prosperous. Equanimity is equanimity, living in the Dharma that is contemplated with wisdom, not inclined by love and hate, contemplating how all actions should be affected, ready to consider according to the Dharma, knowing how to be indifferent, mind, and peace (Phra Brahmaganabhorn (P.A. Payutto), 2003). Compassion is kindness, the desire for others to be free from suffering, and to offer help without expecting anything in return. It is characterized by Oneness, that all beings are one. We are us and we do not destroy ourselves because others are us and we are others by taking care of us. Expanding that love is profound with consciousness and wisdom, and in Dharma, it is difficult to explain in words, which must be done by yourself until you find a state of openness, airiness, and comfort with mindfulness as the lead (Worapat P., 2017). Compassion is an important and distinctive feature in humans. The basis is recognizing and recognizing the suffering of oneself and others. In order to develop compassion, similar to practicing an instrument, it takes a lot of practice to recognize and understand our feelings. There are some qualities that contribute to

compassion in the mind, including the compassion we show to others, our exposure to compassion from others, and our compassion to ourselves (C. Irons & E. Beaumont, 2017).

Methodology

The total number of participant consisted of 330 students studying in a Thai educational institution at the high school level or equivalent. The sample was selected from three schools using the Krejcie and Morgan tables (R.V. Krejcie & D.W. Morgan, 1986 cited in Boonchom S., 2011). The sample consisted of 170 high school students at Wat Phutthabucha School under the Office of the Basic Education Commission in Bangkok, 140 students with vocational certificates at Sarasas Technological College, Office of Vocational Education Commission in Bangkok, and high school students upper Secondary School, Darunsikkhalai School under the Ministry of Higher Education, Science, Research, and Innovation in Bangkok, 20 people.

This study was conducted using quantitative and qualitative research design. The researchers explored attributes that are associated with compassion and affect the development of learning styles that promote compassion in late adolescents. The questionnaire validity was assessed by the Index of item Objective Congruence (IOC) analyzed by 5 experts and tried-out with a group of 60 sample to test the reliability using Cronbach's Alpha Coefficient method to test for 95% confidence. The alpha value was .851. Then, the sample was surveyed by using a specific random sampling method, including high school students at Wat Phutthabucha School, under the Office of the Basic Education Commission, vocational certificate students, Sarasas College of Technology, Office of Vocational Education Commission, and students of the National Education Commission Alternative upper secondary school, Darunsikkhalai School, under the Ministry of Higher Education, Science, Research and Innovation, totaling 330 people. Data was analyst using frequencies whereas the in-depth interviews was conducted with 21 students selected from 3 schools, 7 students each.

Findings

The respondents incorporated 191 females (57.9%) and 139 males (42.1%) with an average age of 15-18 years and a grade point average above 3.00. Most of the respondents lived with their parents.

Table 1: Table showing the association level of attributes that are associated with Compassion

Related Level	Attribute	Male	Female	Total
Most	Empathy	34	61	95
	Happiness	17	29	46
	Sympathy	12	29	41
More	Sympathy	24	37	61
	Empathy	18	31	49
	Understanding	16	28	44
Moderate	Goodwill	16	27	43
	Understanding	21	18	39
	Help	10	22	32
Low	Love	17	12	29
	Help	15	14	29
	Understanding	11	13	24

Very Low	Sadness	14	23	37
	Peaceful	13	10	23
	Loss	9	14	23

The majority of respondents were of the opinion that empathy was the most connected, 95 of whom were female. The number of men was 61 more than the number of males of 34. On a high level of association, the majority of respondents were of the opinion that sympathy was 61 with 37 females more than 24 males. In a moderate association, most respondents were of the opinion that goodwill was 43 of 27 females over 16 males. The majority of respondents deemed Love and Help to be a low-level connection among 29 people. Love was a male respondent with 17 more than 12 female respondents. Help was 15 male respondents more than 14 female respondents. At the lowest level of association, the majority of respondents were of the opinion that sadness was 37 with 23 females over 14 males, respectively.

3. Discussion and Conclusion

The results in this study found that empathy was the most linked to compassion. Most of the respondents were female. This was consistent with (Rueckert, L., & Naybar, N., 2008) that women were significantly more neurologically more responsive to empathy than men and women were significantly more likely to empathize with empathy than men (Nanda, S., 2013-2014). Sympathy was linked to a high degree of compassion. Goodwill has a moderate connection to compassion while Love and Help are on the same level, they were linked to a lesser degree of Compassion. Most of the respondents were male. Males are more responsive to the Romance cognition process than females (Yin et al., 2013). Males express love faster than females (Harrison & Shortall, 2011). Lastly, Sadness has the least connection to Compassion.

In the in-depth interviews, the majority of respondents commented that the word groups appearing in the questionnaire were mainly emotional and emotional characteristics of the individual. It was a characteristic of how one person feels toward another. Most interviewees saw Empathy as the most connected to Compassion. “DS01 talks about Empathy that was truly understanding the feelings of others without our own imagination.” Understanding the actual feelings of the situation or context that arises without manipulating our moods and thoughts. This corresponded to “DS02, which expressed the view on Empathy that to have mercy or good wishes, we must first understand the feelings of others and must truly understand them in the context in which others are experiencing.” “DS07 said that in every action one should understand the feelings of others with the goal that we want others to be free from suffering, we must first understand the feelings of others.” “As PB07 says, compassion is about how we understand both others and ourselves to be able to discern feelings or differentiate between right and wrong. It's the basic essential that human beings should have when in society, it's the foundation that every human being must feel based on Empathy as a building block because humans live by understanding. Humans have to live together, so we must understand the feelings of both ourselves and others.” This is consistent with “PB01 to say that Empathy is where we deeply understand one's feelings and go into that person's mind.” “SS02 views Empathy as a feeling that we have an understanding of the feelings of others. If we understand the feelings of others, we will not make them suffer.” Like “SS05 sees Empathy as the nature of the feeling that we give understanding to others honestly and without pretense in a kind and sincere way”. It can be concluded that Empathy is of great importance to Compassion. It is a

feature that is closely related and closely related. The existence of compassion in humans required an empathy component that created awareness, conducts, and expanded deeply within the mind in such a way that we and him become one until the process of refining and crystallizing sympathy, compassion for ourselves.

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Amalan Pengurusan Program Pembantu Guru dan Hubungannya dengan Kepuasan Kerja Guru di Sebuah Sekolah Menengah Agama Banda Aceh, Indonesia

Melisa Umi Putrisari Bayu^{1*}, Aida Hanim A. Hamid^{1*}

¹ Fakulti Pendidikan, Universiti Kebangsaan Malaysia, Selangor, Malaysia

* Pengarang Koresponden: p102947@siswa.ukm.edu.my, aidahanim@ukm.edu.my

Abstrak: *Pengurusan program pembantu guru mempunyai amalan dan peranan penting dalam menambahbaik pelaksanaan proses pengajaran dan pembelajaran di sekolah. Amalannya sebagai penyokong guru dan murid memberikan bantuan kemudahan untuk menjayakan visi dan misi proses pengajaran dan pembelajaran. Program pembantu guru juga memberikan pengaruh pada kepuasan kerja guru. Oleh itu, kajian ini dijalankan untuk mengenalpasti persepsi para guru terhadap tahap amalan pengurusan program pembantu guru dan hubungannya dengan kepuasan kerja guru di sebuah sekolah menengah agama daerah Banda Aceh, Indonesia. Kajian tinjauan ini melibatkan 80 orang guru dan menggunakan kaedah pensampelan rawak mudah. Instrumen kajian adalah soal selidik yang diadaptasi bagi mengukur konstruk amalan pengurusan program pembantu guru dan hubungannya dengan kepuasan kerja guru. Analisis kajian menggunakan SPSS versi 16.0 (Statistical Package for Social Science Version 16.0). Secara keseluruhannya, dapatan kajian menunjukkan tahap amalan pengurusan program pembantu guru berada pada tahap tinggi iaitu (min= 4.41) dengan konstruk yang diukur adalah dari segi sokongan pembelajaran, sokongan pengajaran, pengurusan tingkah laku murid, kerjasama dan sokongan pentadbiran. Bagi tahap kepuasan kerja guru berada pada tahap tinggi juga iaitu (min= 4.37) dengan konstruk yang diukur iaitu daripada aspek penyeliaan, rakan kerja, kondisi kerja, tanggungjawab, tugas kerja, kemajuan dan penghargaan. Dapatan kajian juga menunjukkan hubungan yang kuat antara amalan pengurusan program pembantu guru dan kepuasan kerja guru. Implikasi kajian ini dapat memberi suatu nilai tambah baik kepada pihak pentadbir sekolah untuk meningkatkan kualiti proses pengajaran dan pembelajaran terhadap performa program pembantu guru kepada sekolah dan meningkatkan kepuasan kerja guru. Diharapkan hasil kajian program pembantu guru ini juga dapat membantu pentadbir dalam pengurusan bilik darjah sehingga dapat mencapai hala tuju visi misi dan matlamat sekolah.*

Kata Kunci: Pembantu Guru, Kepuasan Kerja Guru, Pengurusan Program Sekolah

Abstract: *Teaching assistant programs have an important role in improving the implementation of teaching and learning processes in schools. It has a role as a supporter of teachers and students provides facilitative assistance to achieve the vision and mission of the teaching and learning process. The teaching assistant program also has an influence on teachers job satisfaction. Therefore, this study was undertaken to identify the perception of the teachers towards the teaching assistants program management practices and its relationship with job satisfaction in Sekolah Menengah Agama Banda Aceh, Indonesia. This survey study involved 80 teachers and used a simple random sampling method. The research instrument was a questionnaire adapted to measure the construct of teaching assistant program management practices and its relationship*

with teacher job satisfaction. Analysis of the study using SPSS version 16.0 (Statistical Package for Social Science Version 16.0). Overall, the findings show that the level of management practice of teaching assistant programs is at a high level (mean = 4.41) with the constructs measured in terms of learning support, teaching support, student behavior management, cooperation and administrative support. As for the level of teachers' perception of teacher job satisfaction is also at a high level (mean = 4.37) with constructs measured from the aspects of supervision, colleagues, working conditions, responsibilities, work assignments, progress and appreciation. The implications of this study can provide an added value to school administrators to improve the quality of teaching and learning processes on the performance of teaching assistant programs to schools and increase teacher job satisfaction. It is hoped that the results of the study of this teaching assistant program can also help administrators in classroom management so that they can achieve the direction of the school's vision, mission and goals as well.

Keywords: Teaching Assistant, Teacher Job Satisfaction, School Programs

1. Pengenalan

Program pembantu guru berkait rapat dengan proses pengurusan dan perancangan bilik darjah yang telah dikenalpasti mengenai keseluruhan aktiviti dalam proses pembelajaran. Amalan ini merupakan sesuatu yang diterapkan secara berkesan yang memberi impak positif kepada pencapaian murid diantaranya iaitu menciptakan hubungan interaksi positif antara guru dan murid. Pandangan ini disokong oleh Wentzel (2009) dalam kajian Firdaus, et al. (2016) yang menerangkan bahawa hubungan yang baik antara guru dan murid akan mempengaruhi perkembangan pencapaian murid dari segi akademik dan sosial. Dalam hal ini, satu daripada peranan pembantu guru yang dijalankan adalah membantu mengawal proses pembelajaran bersama guru. Dalam mengawal, pembantu guru akan memberi perhatian dan memfokuskan pembelajaran kepada murid-murid yang mungkin merasa belum faham terhadap subjek yang diajarkan.

Latar belakang program pembantu guru bermula diperkenalkan oleh pengkaji Blatchford et al. (2009) di sekolah rendah dan menengah di negara UK yang mana pembantu guru mempunyai peranannya sebagai penyokong kelas secara langsung untuk menyokong para guru dan murid di pelbagai aspek dalam proses pengajaran dan pembelajaran. Para pembantu guru juga diberikan tanggung jawab tugas oleh pihak berkuasa tempatan sebagai pasukan penyokong untuk melaksanakan kerja sokongan kepada individu murid yang mengalami halangan pembelajaran. Seiring perkembangan masa, amalan pembantu guru mengalami transformasi dari pembantu kelas yang menyokong guru mengawal murid di dalam bilik darjah ke yang lebih khusus untuk menyokong proses pengajaran dan pembelajaran (Yan et al., 2015). Blatchford, et al. (2009) melaksanakan satu kajian mengenai peranan pembantu guru yang berfokus kepada lima perkara utama yang menyoroti amalan sokongan pembelajaran, sokongan pengajaran, pengurusan tingkah laku, kerjasama dan sokongan pentadbiran.

Amalan pembantu guru adalah membantu para guru dengan cara mengawal murid secara individu dan kumpulan semasa proses pembelajaran. Amalannya dalam menyokong proses pembelajaran dapat dikenalpasti daripada aspek perancangan aktiviti pembelajaran, pelaksanaan pembelajaran dan melaksanakan penilaian terhadap proses pembelajaran (evaluasi pembelajaran) (Rizki, 2015).

Program ini juga dianggap sebagai penyokong kepada guru dan kurikulum, penyokong kepada pentadbiran sekolah, penyokong pembelajaran murid dan penyokong tindakan aktiviti langsung dan tidak langsung kepada murid serta pengurusan tingkah laku murid (Jane, 2015; Yan, 2015). Sokongan di dalam bilik darjah yang melibatkan pembantu guru dapat dijalankan dalam konteks kawalan bilik darjah iaitu dengan cara menyokong murid secara individu atau kumpulan, melaksanakan amalan perkongsian tugas pembantu guru (zonasi) dan reflektif kerjasama antara pembantu guru dan guru (Slater & Gazeley, 2018). Melihat dari segi isu yang berlaku, sememangnya peranan program pembantu guru dianggap sebuah cadangan pelaksanaan program yang berkesan dalam menangani masalah yang dihadapi oleh guru dan murid (Blatchford et al., 2009).

Pelbagai permasalahan yang timbul ini menjadi fokus kepada kepuasan kerja guru dalam membina hubungan atau interaksi antara sesama pekerja (pembantu guru) ataupun para murid. Pengalaman kerja yang di amalkan dapat memberikan satu rasa kepuasan bagi setiap guru dan pembantu guru atas nilai-nilai kerja yang mereka berikan semasa proses pengajaran dan pembelajaran (Halimatussaedyah & Noraini, 2015). Seperti yang dikenalpasti, kepuasan kerja guru adalah istilah yang diperkenalkan oleh Herzberg (1959) yang menerangkan tentang perasaan pekerja terhadap kerjaya yang mempunyai semangat dalam melaksanakan setiap tanggungjawab daripada pekerjaannya dan memberikan prestasi kerja yang baik (Hassan & Wahab, 2017). Herzberg (1959) menyatakan dua faktor yang mempengaruhi kepuasan kerja bagi setiap pekerja iaitu faktor motivasi yang terdiri daripada tugas kerja, tanggungjawab, kemajuan dan penghargaan; faktor hygiene pula terdiri daripada penyeliaan, rakan kerja dan kondisi kerja. Guru memerlukan persekitaran pekerjaan yang memuaskan semasa menjalankan tugas yang diberikan (Hashim & Vani, 2017). Beban tugas dan tekanan yang dimiliki para guru perlu dijadikan satu perhatian bagi mengelakkan daripada hilangnya prestasi kerja. Maksudnya, prestasi kerja didefinisikan sebagai hasil kerja dalam melaksanakan tugas kerja yang dibebankan dalam menyumbang matlamat sekolah (Nordin & Hassan, 2019).

Oleh itu, kajian ini bertujuan untuk mengenal pasti persepsi guru mengenai amalan pengurusan program pembantu guru dan hubungannya dengan kepuasan kerja guru di sebuah sekolah menengah agama daerah Banda Aceh, Indonesia. Persoalan kajian yang mendorong kajian ini dijalankan adalah seperti berikut:

- 1) Apakah tahap amalan pengurusan program pembantu guru dan tahap kepuasan kerja guru dalam kalangan guru sekolah?
- 2) Adakah terdapat hubungan amalan pengurusan program pembantu guru dengan kepuasan kerja guru?

Secara keseluruhannya, pengkaji menggabungkan bahagian penting yang terdapat pada artikel ini iaitu dengan tujuan untuk mengenal pasti amalan program pembantu guru dan kepuasan kerja guru-guru di di sebuah sekolah menengah agama daerah Banda Aceh, Indonesia yang berkaitan dengan pengurusan dan perancangan program sekolah.

2. Ulasan Kajian Lepas

2.1 Amalan Pengurusan Program Pembantu Guru

Interaksi yang aktif dan berkesan antara pembantu guru dan para murid merupakan peranan penting dalam suatu pembelajaran. Pernyataan ini disokong oleh kajian lepas Christine dan Peter Blatchford (2010) yang menerangkan bahawa amalan ini diterapkan untuk menyokong murid dalam pembelajaran melalui interaksi antara guru, pembantu guru dan murid melalui aktiviti individu dan kumpulan. Ini merupakan peluang yang baik bagi murid untuk meningkatkan prestasi pencapaian akademik mereka melalui pembantu guru sebagai sokongan alternatif pembelajaran.

Seperti yang kita ketahui, tugas utama pembantu guru adalah membantu para guru dengan cara mengawal murid secara individu dan kumpulan semasa proses pembelajaran. Dalam kajian lepas yang berkaitan dengan kajian ini adalah menurut kajian Jane (2015) menerangkan bahawa terdapat peranan pembantu guru yang dapat diaplikasikan dan menjadi tugas mereka ke dalam proses pembelajaran iaitu sokongan kepada guru dan kurikulum, sokongan kepada pentadbiran sekolah, sokongan pembelajaran murid dan sokongan tindakan aktiviti langsung dan tidak langsung kepada murid. Menurutnya, tugas pembantu guru dalam mengawal dan menyokong pembelajaran murid mengambil masa 4 jam setiap harinya. Artinya, dalam masa yang diberikan pembantu guru berkebolehan untuk melibatkan dirinya dalam tindakan mengajar dengan merancang pelbagai aktiviti-aktiviti yang menarik minat para murid.

Dapatan kajian yang berkaitan pula terdapat pada kajian yang mengkaji domain tugas utama pembantu guru di Sekolah Rendah dan Sekolah Menengah Hongkong (Yan et al., 2015). Instrumen dikaji olehnya untuk mengkaji amalan pembantu guru berdasarkan aspek sokongan pembelajaran, sokongan pengajaran, pengurusan tingkah laku, kerjasama dan sokongan pentadbiran. Merujuk dapatan kajian ini menerangkan bahawa pembantu guru menyedari peranannya sebagai penyokong dalam proses pembelajaran dan program pembantu guru ini dianggap berkesan dan sesuai diaplikasikan di sekolah tersebut.

Seterusnya, bagi Suleymanov (2016) menerangkan mengenai tanggungjawab pembantu guru hanyalah melaksanakan program di bawah bimbingan guru. Pembantu guru menyokong pelajar di kelas arus perdana dengan terus berhubungan dengan mereka yang memerlukan bantuan. Menurutnya, sokongan yang dimaksud adalah peranan pembantu guru mesti lah aktif manakala para murid mempunyai kesukaran semasa belajar. Peranan mereka pula hanya terhad untuk memberi semangat dan menolong murid apabila mereka memerlukan sokongan.

Dapatan kajian Slater dan Gazeley (2018) menyatakan bahawa sokongan dalam kelas yang melibatkan pembantu guru dapat pula dijalankan dalam konteks kawalan bilik darjah di bawah arahan guru dan peranan pembantu guru akan menyokong pelajar individu atau kumpulan kecil. Kes ini menggabungkan hubungan antara guru, pembantu guru dan murid dalam melaksanakan beban tugas dan tanggungjawab tiap-tiap daripada mereka. Slater dan Gazeley (2018) menambahkan bahawa konsep hubungan tersebut sebagai bentuk perkongsian yang bermaksud melabur dalam pendekatan yang lebih baik menyokong proses pembelajaran.

2.2 Kepuasan Kerja Guru

Menurut Halimatussaedyah dan Noraini (2015) dalam kajiannya berkaitan kepuasan kerja guru ke atas 62 orang kakitangan di Yayasan Pembangunan Keluarga Darul Takzim (YPKDT) di Nusajaya, Johor Bahru. Dapatan kajian menerangkan bahawa kepuasan kerja yang tinggi mempengaruhi pekerja untuk mempamerkan prestasi kerja atau hasil kerja yang baik. Sehubungan itu, guru dianggap dapat memberikan prestasi kerja di dalam kerjayanya apabila terdapat rasa kepuasan hati dalam melaksanakan proses pengajaran dan pembelajaran.

Berikutnya, dalam kajian Yashak et al. (2020) menyatakan bahawa aspek kepuasan kerja guru berada pada tahap tinggi yang mana menjelaskan bahawa kepuasan kerja dapat meningkatkan hasrat motivasi diri guru untuk menyumbang kepada pembelajaran dan pemudahcaraan yang berkesan. Selain itu, tahap motivasi ini diharapkan dapat memperoleh tahap profesionalisme yang tinggi dalam merancang dan melaksanakan bimbingan.

Dalam kajian lainnya menunjukkan pada tahap sederhana tinggi yang menerangkan bahawa guru masih berusaha meningkatkan prestasinya dan bersungguh-sungguh melaksanakan tanggung jawabnya agar meningkatkan kualiti pendidikan dan kecemerlangan sektor pendidikan negara (Hashim & Vani, 2017). Konteks ini diterangkan melalui respon daripada responden kajian ini yang menjelaskan bahawa mereka berasa seronok dalam bekerja.

Kajian Ali et al. (2018) mendapati bahawa tahap kepuasan kerja didorong peranan pemimpin organisasi (sekolah) yang membentuk pengalaman kerja pekerja dalam memupuk sikap pekerja dan rasa kesetiaan mereka terhadap organisasi. Maksudnya, kesetiaan tersebut dapat wujud apabila seorang individu memiliki dan meningkatkan rasa kepuasan terhadap organisasinya. Menurutnya, sekiranya seorang pekerja mempunyai rasa percaya dengan kewibawaan pemimpinnya maka akan berkesan terhadap kepuasan kerja.

3. Metodologi

3.1 Rekabentuk Kajian

Kajian ini merupakan kajian tinjauan dan melibatkan pengumpulan data kuantitatif yang mana dapat memberikan penerangan mengenai hala tuju objektif suatu kajian kerana menggunakan data statistik dalam penganalisan data. Sehubungan itu, dalam melaksanakan kajian, pengkaji melaksanakan pengumpulan data menggunakan soal selidik yang diadaptasi daripada sumber berkaitan.

3.2 Populasi dan Sampel Kajian

Pengkaji telah menetapkan populasi kajian kertas projek ini terdiri daripada 107 orang guru di salah satu Sekolah Menengah Agama Banda Aceh. Seterusnya, bagi keperluan penentuan saiz sampel kajian, pengkaji menggunakan rujukan penentuan saiz sampel Krejcie dan Morgan (1970). Merujuk pada saiz sampel, pengkaji telah menetapkan saiz sampel kajian kertas projek ini terdiri daripada seramai 80 orang guru.

3.3 Instrumen Kajian

Dalam kajian ini, instrumen kajian yang digunakan adalah berbentuk soal selidik yang dibentuk oleh Tschannen-Moran, Woolfolk Hoy dan Hoy (1998), *Theoretical Foundation of the Teaching*

Assistant Efficacy Scale (TAES) yang diubahsuai oleh Blatchford (2009) yang digunakan untuk mengkaji domain amalan program Pembantu Guru di Sekolah Rendah dan Sekolah Menengah Hongkong (Yan et al., 2015). Instrumen ini untuk mengkaji amalan pembantu guru berdasarkan aspek sokongan pembelajaran, sokongan pengajaran, pengurusan tingkah laku, kerjasama dan sokongan pentadbiran. Manakala, untuk mengkaji tahap hubungannya dengan kepuasan kerja guru menggunakan instrumen kajian berbentuk soal selidik yang dibina oleh Paula E. Lester (1987), iaitu *Teacher Job Satisfaction Questionnaire* (TJSQ). Konstruk yang akan diukur adalah penyeliaan, rakan kerja, kondisi kerja, tanggungjawab, tugas kerja, kemajuan dan penghargaan.

3.4 Kesahan dan Kebolehpercayaan Instrumen Kajian

Bagi mendapatkan kesahan dan memastikan kebolehpercayaan terhadap item yang dibina, pengkaji telah menjalankan sebuah kajian rintis ke atas 30 orang guru di sebuah sekolah menengah di daerah luar bandar melalui *Google Form*. Data yang telah diperiksa adalah berdasarkan pemeriksaan kesahan oleh pakar daripada sebuah institut universiti swasta yang mempunyai pengetahuan di bidang berkaitan pentadbiran pendidikan dan kebolehpercayaan dengan menggunakan kaedah *Cronbach Alpha*. Oleh itu, secara keseluruhannya, hasil keputusan ujian statistik kebolehpercayaan menunjukkan bahawa nilai pekali *Cronbach Alpha* bagi instrumen bahagian B adalah 0.908. Seterusnya, hasil keputusan bagi analisis kebolehpercayaan instrumen bahagian C adalah 0.690 yang keduanya menunjukkan nilai yang tinggi dan boleh diterima.

3.5 Kaedah Penganalisan Data

Data diperolehi dan dianalisis menggunakan SPSS (*Statistical Package for Social Science*) versi 16.0. Analisis kajian ini melibatkan penggunaan statistik deskriptif dan statistik inferensi. Rangka data amalan pengurusan program pembantu guru dan hubungannya dengan kepuasan kerja guru dijelaskan melalui kekerapan, peratus, purata dan sisihan piawai. Pengkaji juga menggunakan ujian statistik inferensi di dalam kajian ini iaitu kaedah analisis korelasi Pearson.

4. Dapatan Kajian

4.1 Profil Demografi Kajian

Kajian ini melibatkan perincian responden dalam kalangan guru di sebuah sekolah menengah agama Banda Aceh berdasarkan jantina. Berdasarkan Jadual 1 di bawah, analisis profil responden menunjukkan keseluruhan sampel adalah 80 orang. Seramai 22.5% (18 orang responden adalah lelaki) dan 77.5% (62 orang responden lainnya adalah perempuan).

Jadual 1: Profil Demografi Kajian

Profil	Demografi	Kekerapan (f)	Peratusan (%)
Jantina	Lelaki	18	22.5
	Perempuan	62	77.5
	Jumlah	80	100.0
Pengalaman Mengajar	Kurang dari 10 tahun	44	55.0
	10 – 19 tahun	24	30.0
	Lebih dari 20 tahun	12	15.0
	Jumlah	80	100.0

4.2 Tahap Amalan Pengurusan Program Pembantu Guru

Penilaian tahap ini diukur berdasarkan lima aspek utama iaitu sokongan pembelajaran, sokongan pengajaran, pengurusan tingkah laku, kerjasama dan sokongan pentadbiran. Hasil analisis dari lima aspek utama amalan program pembantu adalah seperti Jadual 4.2. Berdasarkan persepsi para guru, secara keseluruhannya, dapatan menunjukkan bahawa tahap amalan pengurusan program pembantu guru berada pada tahap tinggi (min= 4.41). Secara perinciannya, bagi konstruk sokongan pembelajaran, dapatan menunjukkan berada di tahap tinggi (min= 4.21). Bagi konstruk sokongan pengajaran berada pada tahap tinggi (min= 4.29). Seterusnya, bagi konstruk pengurusan tingkah laku, dapatan menunjukkan berada di tahap tinggi (min= 4.32). Konstruk seterusnya adalah kerjasama berada di tahap tinggi (min= 4.32) dan sokongan pentadbiran berada di tahap tinggi (min= 4.29). Di antara konstruk yang telah diukur, terdapat konstruk yang menunjukkan nilai min paling tinggi iaitu konstruk pengurusan tingkah laku murid dengan nilai (min= 4.32) dan (s.p= 0.310) serta yang paling rendah adalah konstruk sokongan pembelajaran dengan nilai (min= 4.21) dan (s.p= 0.293).

Jadual 2: Tahap Amalan Pengurusan Program Pembantu Guru

Konstruk	min	s.p	Interpretasi
Sokongan pembelajaran	4.21	0.293	Tinggi
Sokongan pengajaran	4.49	0.305	Tinggi
Pengurusan tingkah laku	4.32	0.310	Tinggi
Kerjasama	4.32	0.344	Tinggi
Sokongan pentadbiran	4.29	0.298	Tinggi

4.3 Tahap Kepuasan Kerja Guru

Penilaian tahap ini diukur berdasarkan konstruk penyeliaan, rakan sekerja, kondisi kerja, tanggungjawab, tugas kerja, kemajuan dan penghargaan. Berdasarkan persepsi para guru, secara keseluruhannya, dapatan kajian menunjukkan bahawa tahap kepuasan kerja guru berada pada tahap tinggi (min= 4.37). Secara perinciannya, bagi konstruk penyeliaan menunjukkan bahawa berada di tahap tinggi (min= 4.30); konstruk rakan kerja, berada di tahap tinggi (min=4.26); dan konstruk kondisi kerja berada di tahap tinggi pula (min=4.30). Seterusnya, bagi konstruk tanggung jawab berada di tahap tinggi dengan skor (min= 4.22); konstruk tugas kerja berada di tahap tinggi (min= 4.19); konstruk kemajuan berada di tahap tinggi (min= 4.29); dan konstruk penghargaan berada di tahap tinggi pula iaitu (min= 4.21). Terdapat konstruk yang menunjukkan nilai min paling tinggi iaitu bagi konstruk penyeliaan dengan nilai (min= 4.30) dan (s.p= 0.289) serta yang paling rendah adalah konstruk tugas kerja dengan nilai (min= 4.19) dan (s.p= 0.299). Hasil analisis daripada konstruk tersebut dapat disemak seperti Jadual 4.3 di bawah.

Jadual 3: Tahap Kepuasan Kerja Guru

Konstruk	min	s.p	Interpretasi
Penyeliaan	4.30	0.289	Tinggi
Rakan Kerja	4.26	0.238	Tinggi
Kondisi Kerja	4.30	0.282	Tinggi
Tanggung Jawab	4.22	0.311	Tinggi
Tugas Kerja	4.19	0.299	Tinggi

Kemajuan	4.29	0.305	Tinggi
Penghargaan	4.21	0.291	Tinggi

4.4 Hubungan Amalan Pengurusan Program Pembantu Guru dan Keuasan Kerja Guru

Pada bahagian ini menerangkan tentang sama ada terdapat hubungan yang signifikan antara amalan pengurusan program pembantu guru dengan keuasan kerja dalam kalangan guru. Dalam kajian ini, tahap signifikan antara pemboleh ubah yang wujud diukur secara statistik dan merujuk pada nilai $p < 0.5$. Berdasarkan kajian ini, menurut Chua (2006), merujuk pada *Guildford's Rule of Thumb* menerangkan bahawa nilai (r) menjelaskan tentang pengukuran magnitud kekuatan perhubungan antara amalan pengurusan program pembantu guru terhadap keuasan kerja guru yang dapat dilihat dalam sela +1.00 dan -1.00. Di bawah ini adalah hipotesis kajian, seperti:

Ho1: Tidak terdapat hubungan yang signifikan antara amalan pengurusan program pembantu guru dan hubungannya dengan keuasan kerja guru dalam kalangan guru sekolah.

Jadual 4: Hubungan antara Amalan Pengurusan Program Pembantu Guru dengan Keuasan Kerja Guru

	Amalan Pengurusan Program Pembantu Guru	Keuasan Kerja Guru	
Amalan Pengurusan Program Pembantu Guru	Korelasi Pearson	1	.896**
	Sig (2-tailed)		.000
	N	80	80
Keuasan Kerja Guru	Korelasi Pearson	.896**	1
	Sig (2-tailed)	.000	
	N	80	80

Nota: **Signifikan pada aras $p < 0.05$

Berdasarkan Jadual 4.4 di atas, keputusan analisis korelasi menunjukkan hubungan positif dan signifikan antara amalan pengurusan program pembantu guru secara keseluruhannya dengan keuasan kerja guru ($r=0.896$, $p < 0.05$). Menurut *Guildford's Rule of Thumb*, berdasarkan nilai (r) tersebut dapat dinyatakan bahawa interpretasi kekuatan antara amalan pengurusan program pembantu guru dengan keuasan kerja guru menunjukkan korelasi yang positif dan tinggi. Oleh itu hipotesis nul (Ho1) ditolak. Ini bermakna bahawa amalan pengurusan program pembantu guru memberi kesan keuasan kerja guru di sebuah sekolah menengah agama Banda Aceh.

5. Perbincangan

5.1 Tahap Amalan Pengurusan Program Pembantu Guru Sokongan Pembelajaran

Merujuk pada dapatan kajian daripada persepsi para guru menerangkan bahawa peranan guru dalam menyokong pembelajaran adalah bagaimana mereka mampu menyokong pembelajaran bersama murid secara langsung melalui intervensi aktiviti seperti memberi tugas kerja secara individu dan kumpulan. Dapatan ini disokong oleh Nash (2014) bahawa sokongan pembelajaran menghasilkan interaksi yang baik antara pembantu guru dan murid. Dalam konteks ini, amalan penting bagi pembantu guru dalam membina interaksi tersebut adalah melalui sokongan langsung kepada para murid semasa memberikan tugas kepada mereka. Pandangan dapatan ini pula selari dengan Yan (2015) yang menerangkan hal yang sama iaitu sokongan pembantu guru dalam pembelajaran murid dapat merujuk kepada sokongan langsung yang mereka berikan.

Sokongan Pengajaran

Secara keseluruhannya, dapatan kajian menerangkan bahawa peranan pembantu guru mengikuti arahan guru dalam proses pengajaran. Maksudnya, para guru berpendapat bahawa pembantu guru mampu menunjukkan kerjasamanya semasa proses pengajaran dilaksanakan. Peranan program ini dianggap dapat membantu guru lebih fokus kepada tugas utamanya dalam mengajar para murid. Pandangan ini selari dengan pendapat Charles et al. (2016) bahawa pembantu guru memberikan peluang kepada guru untuk memfokuskan diri kepada tugas utama mereka dalam pengajaran di dalam kelas.

Pengurusan Tingkah Laku Murid

Menurut dapatan kajian, pembantu guru juga terlibat sebagai penyokong dan pembimbing masalah tingkah laku para murid. Ini bermakna bahawa pengurusan tingkah laku murid merupakan bahagian daripada peranan mereka di dalam atau luar bilik darjah semasa mengawal masalah tingkah laku. Dapatan kajian ini menunjukkan bahawa peranan program pembantu guru membendung atau mengawal tingkah laku murid di bilik darjah. Hasil kajian ini adalah selari dengan pendapat Yan (2015) bahawa pengurusan tingkah laku murid merupakan bahagian dari tanggung jawab seorang pembantu guru di dalam ataupun luar bilik darjah. Pernyataan ini juga disokong oleh pandangan Emma dan John (2016) bahawa program ini dianggap sebagai suatu bimbingan tingkah laku pada murid yang dapat dijadikan sebagai sebuah intervensi pengurusan bilik darjah.

Kerjasama

Selari dengan pandangan ini, Abdulqader (2020) menyokong bahawa pembantu guru mempunyai komitmen yang tinggi terhadap pekerjaan mereka dalam membangun kerjasama dengan orang yang bekerja bersama mereka. Menurutnya, pembantu guru berusaha melibatkan diri mereka dalam usaha memberikan sumbangan ilmu kepada pihak yang terlibat dalam kerjasama tersebut. Namun, lebih terperinci, secara khasnya terdapat dapatan kajian oleh Yan (2015) menyatakan bahawa di sebuah sekolah Hong Kong, dalam membantu proses perkembangan murid, para pembantu guru di sekolah tersebut merasa lebih yakin apabila mereka menjalankan tanggung jawab kerjasama bersama pihak luaran sekolah.

Sokongan Pentadbiran

Secara keseluruhannya, dapatan kajian pada tahap sokongan pentadbiran berada pada tahap tinggi. Ini bermakna bahawa terdapat pelbagai tugas tanggung jawab yang dijalankan oleh pembantu guru mampu memberi kemudahan bagi fungsi pentadbiran sekolah. Merujuk dapatan kajian Abdulqader (2020) bahawa secara tidak langsung menyokong pentadbiran sekolah kerana peranan pembantu guru dianggap mampu membantu menyelesaikan masalah yang dihadapi oleh guru dalam proses pengajaran dan pembelajaran murid.

5.2 Tahap Kepuasan Kerja Guru Penyeliaan

Secara keseluruhannya, berdasarkan dapatan kajian menunjukkan penyeliaan berada pada tahap tinggi. Ini bermakna bahawa guru sebagai penyelia melaksanakan tugas yang diberikan oleh pihak sekolah untuk menyelia dan mengarahkan pembantu guru dengan baik. Kenyataan ini disokong oleh dapatan kajian Hashim dan Vani (2017) menjelaskan bahawa aspek penyeliaan

merupakan tugas utama bagi guru untuk menjadi penyelia dan menjalankan tugas penyeliaan dengan baik, teliti dan penuh konsisten. Menurut pandangan kajian sebelum ini, dapatan ini juga disokong oleh Ilhaamie dan Raudah (2018) yang menerangkan bahawa kepuasan kerja para guru dipengaruhi oleh penyeliaan yang dijalankan oleh guru selama tempoh perkhidmatan mereka. Seterusnya, dapatan kajian lainnya disokong oleh Ali et al. (2018) yang menyatakan bahawa kepuasan kerja didorong oleh sikap terhadap tugas-tugas atas sokongan penyelia.

Rakan Kerja

Secara keseluruhannya, dapatan kajian menunjukkan bahawa rakan kerja berada pada tahap tinggi. Dapatan kajian ini disokong oleh Hanis dan Raudhiah (2018) yang menyatakan bahawa faktor rakan kerja mempunyai peranan penting terhadap kepuasan kerja. Ini bermakna bahawa rakan sekerja mampu meningkatkan semangat dan motivasi dalam diri para guru dan pembantu guru dalam melaksanakan tugas. Guru dan pembantu guru merupakan satu kumpulan rakan sekerja yang bekerja dalam satu kolaborasi semasa proses pembelajaran di dalam bilik darjah (Cupido 2017).

Kondisi Kerja

Kondisi kerja atau persekitaran kerja merupakan keadaan di tempat kerja yang dapat memberi impak terhadap produktiviti kerja dengan melibatkan faktor dalaman dan luaran persekitaran kerja itu sendiri (Hasinah & Ahmad, 2020). Menurut dapatan kajian pada aspek ini menunjukkan interpretasi skor nilai min yang tinggi. Sepertimana dapatan ini menerangkan bahawa suasana kerja atau kondisi kerja memberi kesan terhadap kepuasan kerja guru. Penerangan ini selari dengan dapatan kajian Junaidah dan Rosila (2013) yang menerangkan bahawa di dalam persekitaran sekolah para guru menilai tugas mereka dan menentukan apa yang mereka rasa semasa bekerja. Dapatan kajian lainnya menyatakan bahawa kondisi kerja menentukan peningkatan produktiviti tenaga kerja suatu organisasi (Mutia, 2014).

Tanggung Jawab

Kepuasan kerja guru mengenai tanggung jawab sebagai pendidik yang aktif berperanan dalam melaksanakan tugas kerja dan menjalankan hubungan diantara guru dan pelajar. Secara keseluruhannya, menurut hasil dapatan kajian ini menunjukkan pada tahap tinggi. Ini bermakna bahawa para guru melaksanakan tanggung jawab bimbingan proses pengajaran dan pembelajaran murid secara baik. Namun, di segi lain, guru memerlukan kecerdasan emosi bagi meningkatkan kualiti tugas kerja dan kepuasan dalam kerjayanya (Ilhaamie & Raudah, 2018). Dalam konteks kajian ini, para guru dan pembantu guru bekerjasama menjalankan tanggung jawab tugas kerja untuk mencapai matlamat rancangan proses pengajaran dan pembelajaran (Cupido, 2017). Sebagaimana dapatan kajian ini disokong oleh Efthimia (2016), pembantu guru mempunyai tanggung jawab dalam mengurus keperluan penyediaan bahan untuk pembelajaran.

Tugas Kerja

Seperti yang diketahui bahawa guru melaksanakan tugas kerja yang pembantu guru membantu meringankan beban kerja mereka dalam mengawal bilik darjah, membantu menyediakan keperluan kelas, membantu merancang strategik pembelajaran murid dan memberikan masa kepada para guru untuk mengajar dengan selesa. Namun, merujuk pada dapatan kajian ini, dimensi tugas kerja berada di tahap yang paling rendah berbanding dimensi kepuasan kerja yang lainnya.

Ini bermakna bahawa tugas kerja yang dibebankan kepada para guru memerlukan perhatian untuk menambahbaik sistem agihan beban kerja yang diberikan. Sebagaimana kepuasan kerja yang dimiliki guru akan menjejaskan kepada kualiti pekerjaan itu sendiri, tak hanya itu, ia nya akan berimpak pula pada hilangnya fokus dalam proses pengajaran dan pembelajaran. (Azida et al., 2015). Selari dengan pandangan tersebut, dapatan kajian yang disokong oleh Cupido (2017) menerangkan bahawa program pembantu guru mengembangkan budaya keterlibatan yang kuat melalui interaksi yang berterusan antara pengajar (guru) dan pembantu guru. Menurutnya, dalam konteks sokongan pengajaran, terdapat amalan kerjasama yang dikembangkan oleh pihak guru dan pembantu guru melalui kolaborasi sumbangan positif terhadap amalan pengajaran dan pembelajaran. Ia menambahkan, ini diyakini mampu meringankan tugas/beban kerja para guru.

Kemajuan

Dapatan kajian menunjukkan pada tahap tinggi yang menerangkan bahawa kemajuan merupakan bentuk kepuasan kerja guru yang merujuk pada peluang perkembangan kerjaya mereka dalam melaksanakan tugas kerja. Dapatan kajian ini seiring dengan Yashak et al. (2020) yang menyatakan bahawa kemajuan adalah wujud peluang memajukan diri. Dapatan kajian ini menyokong kajian Hashim dan Vani (2017) yang mendapati bahawa majoriti guru yakin kepada masa depan dalam kerjaya mereka. Para guru dan pembantu guru merasa mempunyai harapan kenaikan pangkat yang lebih tinggi dengan potensi kerja mereka. Pandangan ini disokong pula oleh dapatan kajian Hassan dan Wahab (2017) yang menyatakan bahawa guru yang berpuas hati dengan kerjayanya akan memberikan komitmen yang tinggi dalam pekerjaan.

Penghargaan

Menurut dapatan kajian ini menyatakan secara keseluruhannya menunjukkan nilai min yang tinggi. Selari dengan dapatan kajian Yashak et al. (2020) yang bersetuju bahawa penghargaan akan meningkatkan motivasi dalam kalangan guru sekolah atas kerja dan sokongan yang diberikan semasa proses pengajaran dan pembelajaran. Menurutnya, dengan begitu guru maupun pembantu guru merasa lebih gigih apabila mereka dihargai dan akan memberikan satu rasa puas hati sehingga sentiasa bersama memperhebatkan sekolah. Dapatan kajian disokong oleh kajian Halimatussaediyah dan Noraini (2015) yang mendefinisikan bahawa penghargaan merupakan hak yang diterima atas prestasi kerja yang telah dicapai. Menurutnya, penghargaan merupakan wujud kepuasan kerja yang boleh memberi impak positif kepada suatu organisasi. Sebab, pekerja akan lebih menghargai jawatan kerja nya dan bersemangat menyumbang kepada peningkatan produktiviti organisasi. Ia menambahkan bahawa pemberian penghargaan dianggap sebuah balasan yang diterima terhadap pekerjaan yang telah dilaksanakan atas titik peluh yang dicurahkan.

5.3 Hubungan antara Amalan Pengurusan Program Pembantu Guru dan Kepuasan Kerja

Secara keseluruhannya, dapatan kajian menggunakan analisis inferensi menunjukkan bahawa terdapat hubungan signifikan yang kuat antara amalan pengurusan program pembantu guru dan kepuasan kerja guru di sebuah sekolah menengah agama Banda Aceh, Indonesia. Ini bermakna peranan program pembantu guru di sekolah tersebut memberi kesan positif terhadap impak pelaksanaannya. Dapatan kajian ini bertepatan dengan pendapat Blatchford et al. (2009) bahawa pembantu guru mempengaruhi kerjaya para guru dalam hal kepuasan kerja guru. Maksudnya, pembantu guru sebagai staf sokongan mempengaruhi kepuasan kerja mereka terhadap hubungan kerja, kerja itu sendiri dan murid. Dapatan kajian ini juga bersetuju dengan pendapat Lam dan Yan

(2011) dimana amalan pembantu guru memainkan peranan penting dalam memberi lebih banyak masa kepada para guru untuk menumpukan perhatian pada pengajaran dan pembelajaran dan membolehkan mereka mendapat keseimbangan kerja dan kehidupan lebih baik.

Sepertimana pada asasnya, pembantu guru memberi wujud impak terhadap sokongan di dalam proses pengajaran dan pembelajaran bilik darjah (Ayers, 2014). Secara terperinci, sokongan dalam konteks proses pengajaran dapat dikenalpasti melalui peranan mereka terhadap keperluan dan beban kerja para guru serta sokongan lainnya pula dapat mereka jalankan kepada tiap individu murid secara langsung (Yan, 2015; Wren, 2017; Abdulqader, 2020). Ini merupakan sebuah peluang bagi pembantu guru dan guru merancang dan bekerjasama untuk menciptakan kualiti hasil pembelajaran yang berkesan (Webster & Boer, 2019).

6. Kesimpulan

Kesimpulan perbincangan kajian dapat dirumuskan bahawa amalan pengurusan program pembantu guru yang dianggap sebagai bimbingan dan sokongan bagi proses pengajaran dan pembelajaran. Secara terperinci, dalam bentuk perkongsian tugas dengan guru di sekolah tersebut, amalan pembantu guru dapat memberi sumbangan kepada sekolah dalam segi sokongan pembelajaran, pengajaran, tingkah laku, kerjasama dan sokongan pentadbiran. Selain itu, persepsi terhadap amalan pengurusan program pembantu guru yang menjadi fokus dalam konteks penyelidikan ini menjadi bukti keperluan program pembantu guru dilaksanakan di sekolah tersebut. Hal ini kerana, amalan pembantu guru memberikan sokongan kemudahan kepada guru-guru dalam menjayakan visi dan misi proses pengajaran dan pembelajaran dan juga mengelakkan hal yang dapat menjejaskan tugas utama guru. Maksudnya, dari segi kepuasan kerja guru, sesetengah guru merasa puas hati dalam melaksanakan tanggung jawab proses pengajaran dan pembelajaran dengan bantuan dan sokongan pembantu guru meringankan tugas mereka dalam mengawal bilik darjah dan membantu menyediakan keperluan pembelajaran murid. Tahap kepuasan kerja yang berasaskan pada teori motivasi dua faktor Herzberg menjadi gambaran yang mendefinisikan faktor motivasi guru menjalankan tugasannya walau banyak tekanan dan cabaran yang dihadapi.

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Analisis Kecuaian Doktor dalam Mendiagnosis Rawatan di Klinik Swasta: Kesan kepada Penjagaan Kesihatan Pesakit

Khosenulhan Ab Rahman^{1*}, Hassan Ahmad¹, Mohd Azuri Shaari¹

¹ Pusat Sains Kemanusiaan, Universiti Malaysia Pahang

* Pengarang Koresponden: senumaster@gmail.com

Abstrak: *Kajian ini adalah bertujuan untuk menjelaskan beberapa persoalan berkaitan kecuaiian dalam amalan perubatan yang berlaku di hospital dan klinik persendirian. Profesion kedokteran adalah profesion yang dihormati dalam kalangan masyarakat di seluruh dunia. Menurut Haq, F. dan Wong, H.Y. (2010), seorang doktor sewajarnya mempamerkan sikap yang baik, boleh diteladani, profesional dan mempunyai kemahiran komunikasi yang baik antaranya lemah lembut, berhati-hati dan menyenangkan hati pesakit yang dirawat semasa memberi perkhidmatan supaya mendatangkan keselesaan kepada pesakit ketika menerima rawatan. Namun begitu, masih terdapat dalam kalangan doktor di klinik swasta yang belum berjaya mempraktikkan sikap profesional kedokteran mereka sehingga berlaku kecuaiian dan kesilapan dalam rawatan. Berdasarkan kajian yang telah dijalankan, peratusan kejadian buruk akibat kecuaiian terhadap orang tua melepasi tahap ($p = 0.01$) dan terdapat sejumlah besar pesakit menghadapi kecederaan dan kesilapan dalam menerima rawatan perubatan, ekoran perkhidmatan yang tidak berkualiti. Lawthers, A. G. dan Hiatt, H. H. (1991) serta Oyebode, F. (2013) melaporkan bahawa pesakit yang dimasukkan ke hospital di seluruh dunia, mencapai tahap 3–16 peratus mengalami kecederaan akibat kecuaiian rawatan perubatan dan kesilapan dalam preskripsi ubatan. Kajian ini telah dilaksanakan berasaskan kajian perpustakaan dengan merujuk pelbagai teks pembentangan, jurnal, buku dan laporan bagi memperoleh maklumat berkaitan. Sebanyak 50 buah artikel kajian yang relevan telah dirujuk dan diteliti bagi mengesahkan data kes-kes kecuaiian dan kesalahan dalam perkhidmatan rawatan terhadap pesakit di klinik persendirian. Selain itu penulisan ini turut merujuk kepada undang-undang dalam perkhidmatan perubatan Kementerian Kesihatan Malaysia (KKM) dan etika Islam untuk dianalisis peranannya dalam isu ini. Hasil kajian mendapati kualiti perkhidmatan rawatan di klinik swasta akan menerima kesan yang lebih baik menerusi amalan dan penerapan prinsip etika Islam serta mematuhi prosedur dalam menyampaikan perkhidmatan perubatan yang telah ditetapkan oleh KKM. Melalui pematuhan kedua-dua prosedur tersebut akan menghasilkan perkhidmatan yang baik dan berkualiti seperti mana yang dikehendaki oleh masyarakat.*

Kata Kunci: proses rawatan, kepuasan pesakit, penjagaan kesihatan, kecuaiian perubatan

Abstract: *This study aims to clarify some questions related to negligence in medical practice that occurs in hospitals and private clinics. The medical profession is a professional and respected profession among communities around the world. According to Haq, F. and Wong, H.Y. (2010), a doctor should exhibit a good attitude, exemplary, professional and have good communication skills including gentle, careful and pleasant to the patient treated while providing services to bring comfort to the patient while receiving treatment. However, there are still some doctors in private*

clinics who have not succeeded in practicing the professional attitude of their medicine until there is negligence and errors in treatment. Based on studies that have been conducted, the percentage of adverse events due to negligence of the elderly exceeds the level ($p = 0.01$) and there are many patients facing injuries and errors in receiving medical treatment, due to poor quality services. Lawthers, A. G. and Hiatt, H. H. (1991) as well as Oyebode, F. (2013) reported that hospitalized patients worldwide, reaching a level of 3–16 percent suffered injuries due to medical negligence and errors in medication prescription. This study was implemented based on library research by referring to various presentation texts, journals, books and reports to obtain relevant information. A total of 50 relevant research articles were referenced and examined to validate the data of cases of negligence and errors in treatment services to patients in private clinics. Apart from that, this writing also refers to the law in the medical services of the Ministry of Health Malaysia (MOH) and Islamic ethics to analyze its role in this issue. The results of the study found that the quality of treatment services in private clinics will receive a better effect through the practice and application of Islamic ethical principles as well as adherence to procedures in delivering medical services that have been set by the MOH. Through compliance with these two procedures will produce good and quality services as required by the community.

Keywords: treatment proses, patient satisfaction, healthcare, medical negligence

1. Pengenalan

Kes kecuiaan perubatan menjadi perhatian ramai sama ada di luar negara mahu pun di Malaysia. Hal yang berkaitan kecuiaan ini bukan sahaja terjadi di hospital kerajaan malah turut berlaku di hospital swasta dan klinik persendirian. Dalam kajian ini penulis lebih memberi fokus kejadian yang banyak berlaku dalam hospital kerajaan dan swasta, walaupun terdapat juga kecuiaan di klinik persendirian. Statistik tahunan yang komprehensif mengenai perubatan tuntutan kecuiaan tidak terdapat di Malaysia, kerana data tersebut tidak dikumpulkan secara sistematik namun terdapat petunjuk arah aliran menaik terhadap tuntutan kes di mahkamah. Cheah, C. W., Soon, H. I., Ngeow, W. C., Monerasinghe, E., & Lian, C. B (2005). Sepuluh tahun lalu iaitu pada tahun 2000, amaun pampasan yang dibayar oleh Kerajaan Malaysia dalam kes-kes *medico-legal* adalah sebanyak RM219,508. Ismail, S. Z. (2011). Jumlah tersebut terus meningkat dalam tempuh 2 tahun menjadikan jumlah RM951,889. Peningkatan ini seolah-olah menggambarkan wujud salah laku dalam kalangan doktor¹. Antara kelemahan yang berlaku ialah melibatkan kesilapan bukti fizikal, kesilapan memberi ubat dan diagnosis yang salah (Alfansi, L, & Atmaja, F. T., 2009). Terdapat juga berlaku kecuiaan dalam prosedur pembedahan, kecuiaan preskripsi ubat-ubatan dan kesilapan mendiagnosis penyakit.²

Oleh hal yang demikian, kajian ini adalah untuk membincangkan aspek kelemahan yang didapati daripada kes-kes kecuiaan dalam kalangan doktor di klinik persendirian. Walaupun masyarakat sedia maklum klinik persendirian akan menerima pesakit yang berkeadaan pesakit ringan, namun ia tidak terkecuali turut terlibat dalam kecuiaan sepertimana yang berlaku di hospital. Dapatan kajian ini akan menunjukkan kecuiaan akan memberi kesan buru dan merugikan pesakit jika

¹ Medical Practice Division, Ministry of Health Malaysia, 13 Januari 2011, <http://www.moh.gov.my>.

² JK Puteri Nemie: Medical negligence litigation in Malaysia: whither should we travel?" Journal of the Malaysian Bar (Insaf) 1,14 – 25 (2004)

doktor tidak berhati-hati dalam menjalankan tugas mereka. Dapat ini juga dapat menjelaskan bahawa punca sebenar berlaku kecuaiian boleh diterjemahkan kearah penambahbaikan dalam sistem perubatan. Dalam hal ini, pengurusan hospital dan klinik bertanggungjawab kepada proses tindakan seperti melakukan pemantauan terhadap doktor dan kakitangan di agensi masing-masing. Pengurusan agensi perlu memastikan doktor mereka sentiasa mematuhi Standard Operasi Prosedur (SOP) untuk mengelakkan berlalunya kecuaiian dan kesilapan dalam menjalankan tugas. Langkah menguatkuasakan peraturan seupama ini berupaya melindungi institusi perubatan daripada tidak hormati oleh pesakit serta masyarakat. Doktor merupakan fokus utama untuk menentukan penambahbaikan terhadap tugas yang dijalankan di agensi mereka. Kecekapan urus kerja yang berkualiti melalui pengurusan risiko akan dapat mengurangkan masalah-masalah yang berkaitan Ahmad Farid, A. R., Haidar Rizal, T., Jamsiah, M., & Khalib, A. L. (2009). Oleh itu usaha untuk menentukan kecuaiian dan kelemahan dapat diselesaikan, semua pihak perlu bekerjasama dan bertanggungjawab di dalam organisasi tersebut.

2. Metodologi

Untuk memastikan kajian ini dapat mengutip maklumat yang betul maka kaedah pencarian data maklumat adalah berasaskan metodologi berbentuk kajian kepustakaan melalui pendekatan analisa terhadap bukti-bukti menerusi journal-journal yang diambil dari sumber yang disepakati dan tidak disepakati, serta pelbagai hujah sokongan daripada artikel-artikel berkaitan yang diterbitkan dari dalam dan luar negara dan lain-lain. Sebanyak 50 artikel dan journal serta sumber-sumber berkaitan yang relevan telah di kajian bagi mendapatkan maklumat-maklumat penting kajian. Persemplesan kajian lebih tertumpu kepada doktor di klinik swasta. Doktor adalah sample yang utama kerana mereka adalah yang terlibat secara langsung dalam memberi rawatan kepada pesakit.

3. Ulasan Kajian Lepas

Kajian terdahulu telah melaporkan bahawa kecuaiian perubatan menjadi perkara yang sangat serius kerana jumlah tuntutan mahkamah terus meningkat. Kesalahan dan kecuaiian yang berlaku adalah melibatkan agensi perkhidmatan kesihatan di hospital kerajaan, hospital swasta dan klinik swasta. Ia dibuktikan melalui kajian empirikal yang mencatatkan kadar kecuaiian perubatan yang tinggi. Menurut laporan IOM "*To Err Is Human*" penyelewengan atau kesalahan klinikal didefinisikan sebagai perancangan yang gagal dilaksanakan dengan betul dan berkesan ketika melaksanakan rawatan. Lombogia, A., Rottie, J., & Karundeng, M. (2016). Dalam kata lain kesalahan berlaku apabila perkhidmatan yang dirancang tidak berjaya dilaksanakan dengan sempurna. Contoh kesalahan dan kecuaiian yang berlaku ialah seperti pemberian ubat atau dos yang salah, berlaku kecederaan terhadap pesakit. Sohn, D. H. (2013). Statistik Kementerian Kesihatan Malaysia menjelaskan bahawa antara tahun 1986 dan 1990, 61 tuntutan kecuaiian perubatan dibuat terhadap doktor kerajaan, rata-rata sekitar 12 tuntutan setiap tahun. Angka masing-masing berjumlah 20 dan 16 pada tahun 1991 dan 1992 (Tay Pek, 1998), Angka tersebut turut dipersetujui ahli lembaga Medical Defence Malaysia (MDM) yang menjelaskan peningkatan langganan ganti rugi, dan peningkatan jumlah litigasi terhadap doktor (Radhakrishnan, 2003).

Justeru kelemahan ini dilihat sebagai satu fenomena pelanggaran etika perubatan yang telah membawa kepada rungutan dan kebimbangan dalam kalangan pesakit (Sugarman, J., 2000). Tahap pengamalan etika perubatan yang kurang berkesan sehingga menyebabkan berlakunya kecuaiian

dan kesalahan adalah berpunca daripada doktor itu sendiri (New Strait Times, 23 Februari 2013). Segala kegagalan dalam diagnosis penyakit dan rawatan pemulihan boleh dikatakan disebabkan oleh kecuiaan atau kekurangan kepakaran Ismail, S. Z. (2011). Kejadian kematian selepas komplikasi melahirkan bayi³, proses pemindahan darah yang tercemar⁴ gangren sehingga tangan dipotong⁵ dan pelbagai insiden lain mengakibatkan pesakit membuat tuntutan kerugian di mahkamah. Tindakan seumpama ini menimbulkan persoalan mengenai tahap profesionalisme pegawai perubatan tempatan. Kecuaian rawatan perubatan sering didedahkan dan maklumat berhubung kecuiaan dan kesilapan doktor boleh diperolehi menerusi media. Hatta, M., Noor Azira, T., & Mohd Shariff, A. A. (2016).

Turut memperakui data tersebut bahwa Kementerian Kesihatan Malaysia (KKM) menjelaskan peningkatan dari 29 hingga 56 kes terhadap doktor dari tahun 2006 menjadi 2011 (Chin, 2013). Antara faktor yang mempengaruhi kecuiaan adalah keranan perkhidmatan yang diberikan mendapat rungutan pesakit. Rasa ketidakpuasan hati pesakit terhadap perkhidmatan yang diperolehi⁶. Apa yang diperolehi berdasarkan kajian empirikal ialah hubungan pesakit dengan doktor yang kurang mesra merupakan asas dan faktor berlakunya kecuiaan. Walaupun begitu kelemahan dan kecuiaan rawatan tidak hanya tertakluk kepada doktor semata-mata tetapi juga melibatkan pesakit. Ia melibatkan sikap pesakit yang enggan membenarkan mereka disentuh oleh doktor, tidak mematuhi nasihat dan arahan, suka mengambil tindakan sendiri turut menjadi penyumbang kepada berlaku kelemahan rawatan. Situasi tegang antara doktor dan pesakit semasa diagnosis boleh membawa kepada doktor mengambil tindakan seperti kurang perhatian dan peduli terhadap pesakit. He, A. J. (2014).

4. Dapatan Kajian

Melalui carian maklumat berhubung kecuiaan doktor, pengkaji mendapati bahawa tuntutan kes kecuiaan dan kesalahan klinikal rawatan perubatan di mahkamah di negara ini (Malaysia) meningkat dari RM1.2 juta pada tahun 2006 kepada RM5.7 juta pada tahun 2010 (Siti Naaishah Hambali, Solmaz Khodapanahandeh, 2014). Manap, M. A. (2019). Tuntutan tersebut membabitkan tuntutan kecuiaan, 14.1%, perbidanan (10.7%), pembedahan 40% kes. Terdapat juga tuntutan yang tidak berkaitan dengan kesilapan (72%), kecederaan 84%) kesilapan 73%. D. M., Mello, M. M., Gawande, A. A., Gandhi, T. K., Kachalia, A., Yoon, C., & Brennan, T. A. (2006). Penyataan data yang didapati menunjukkan bahawa kelemahan sikap dan tingkah laku doktor adalah diantara faktor berlaku kecuiaan dan kesalahan dalam tugas yang dilaksanakan oleh mereka. Data di jadual 1.1 adalah beberapa jurnal yang menjelaskan kes-kes kecuiaan dan kesilapan doktor seperti diatas.

³ 'HUSM, doktor disaman RM8 juta', Utusan Malaysia, 31 Januari 2010.

⁴ Lihat 'Patients to know fees in advance', 29 Disember 2010, New Straits Times.

⁵ Kes Nurul Syafiqah yang terpaksa dipotong tangan akibat gangrene. Lihat Utusan Malaysia 22 November 2002, 10 Disember 2002, 20 Disember 2002, 1 April 2003, 27 Mac 2003 dan MASSA, Bil.412, 32-33.

⁶ Seremban, n. S. Kajian kepuasan pelanggan di kalangan pesakit klinik swasta.-Jurnal Kesihatan Masyarakat 2003: Jilid

Jadual 1.1: Data Kes Kecuaian Doktor.

KES	JUKAN	PENULIS
Kecuaian	Incidence of adverse events and negligence in hospitalized patients: results of the Harvard Medical Practice Study I.	Brennan, T. A. (2006).
Pemberian ubat	Negligence, genuine error, and litigation. <i>International journal of general medicine</i> , 6, 49.	Sohn, D. H. (2013).
Kejadian kematian	The occurrence, types, consequences and preventability of in-hospital adverse events—a scoping review	Simon, M., & Ausserhofer, D. (2018).
Kesilapan bukti fizikal	Service failure and complaint behavior in the public hospital industry: the Indonesian experience. <i>Journal of Nonprofit & Public Sector Marketing</i> , 21(3), 309-325.	Alfansi, L., & Atmaja, F. T. (2009)

Ekoran kejadian kes, pesakit telah membuat tuntutan mahkamah. Tindakan ini menggambarkan bahawa doktor terdedah kepada risiko penghakiman disebabkan kegagalan mereka mematuhi prosedur perkhidmatan. Tuntutan kecuaiian doktor di mahkamah bukan sahaja berlaku di negara ini, bahkan meliputi hospital-hospital di seluruh dunia. Menurut data kajian oleh Schwendimann, R., Blatter, C., Dhaini, S., Simon, M., & Ausserhofer, D. (2018) yang dijalankan di 27 buah negara dengan jumlah kajian sebanyak 25 kajian, mendapati bahawa secara keseluruhan, median 10% pesakit terjejas oleh sekurang-kurangnya satu AE (kisaran: 2.9-21.9%), dengan median 7.3% (julat: 0.6-30%) AEs membawa maut. Antara 34.3 dan 83% AE dianggap dapat dicegah (median: 51.2%). Tiga jenis AE yang paling umum dilaporkan adalah berkaitan dengan operasi / pembedahan / ubat-ubatan / cecair, dan jangkitan yang berkaitan dengan penjagaan kesihatan. Data di jadual 1.2 adalah rumusan kes-kes seperti diatas.

Jadual 1.2 : Analisis Kecuaian Rawatan Perubatan

KES	PERATUS	TAHAP
Membawa maut	34.3 dan 83% AE	median: (51.2%).
Operasi/ ubat-ubatan/ pembedahan	kisaran: (2.9-21.9%),	julat: (0.6-30%)

Berasaskan kelemahan ini pengurusan klinik perlu menyedari bahawa penggunaan SOP dalam melaksanakan ujian klinikal, pemeriksaan, penilaian, sepanjang ujian klinikal dijalankan adalah satu kewajipan (Rao, T. S., Radhakrishnan, R., & Andrade, C., 2011). Data yang paparkan di atas merupakan sebahagian daripada data yang dikutip daripada jurnal yang diperakui menerusi kajian di hospital dan klinik dibeberapa buah negara di seluruh dunia.

5. Perbincangan dan Kesimpulan

Tahap pengamalkan etika perubatan yang kurang berkesan sehingga menyebabkan berlakunya kecuaiian dan kesalahan adalah berpunca daripada doktor itu sendiri. (New Strait Times, 23 Februari 2013). Kelemahan tersebut berlaku disebabkan beberapa faktor yang mempengaruhi doktor semasa mereka membuat pemeriksaan dan rawatan terhadap pesakit, diantaranya seperti berikut :

5.1 Tidak Mematuhi Standard Operasi Prosedur (SOP)

Etika yang mesti dipatuhi dan diikuti oleh doktor dalam mempraktikkan pengetahuan perubatan mereka adalah berdasarkan hubungan yang wujud antara doktor dan pesakit⁷. Seorang doktor diminta untuk merawat pesakit pada tahap profesional yang tinggi seperti mendiagnosis, merawat dan memberikan maklumat mengenai risiko dan kesan rawatan tersebut⁸. Oleh itu, terdapat undang-undang yang dikenali sebagai kod etika tatakelakuan untuk memberi panduan kepada doktor ketika merawat pesakitnya⁹. Menurut Osman-Gani et al. (2013) bahawa religiositi mempunyai hubungan yang positif dan signifikan dengan prestasi kerja. Oleh itu, selain etika kelakuan seperti yang dinyatakan di atas, Standard Operasi Prosedur (SOP) juga sangat penting di patuhi oleh doktor. Kepatuhan SOP ini akan dapat membantu merapatkan jurang kecuaiaman amalan klinikal dalam rawatan. Standard Operasi Prosedur berupaya memastikan perkhimatan dijalankan dengan berkesan dan teratur. Faktor lain seperti keupayaan (pengetahuan dan kemahiran), pengalaman, motivasi dan personaliti. serta budaya, organisasi dan persekitaran kerja (Abu Bakar 2006), turut mempengaruhi tingkah laku doktor. Justeru tata kelakuan doktor sangat penting sebagai rujukan dan panduan malah ia juga terkandung dalam Akta Perubatan 1971. Sehubungan dengan itu, etika perubatan adalah bidang ikhtisas yang berkaitan kesihatan manusia dan menjadi tanggungjawab seseorang doktor perubatan untuk diamalkan. Ia mesti diurus dengan betul dan berkesan (Malaysian Medical Association, 2008).

5.2 Gagal Mematuhi Garis Panduan Klinikal

Garis Panduan Klinikal telah dimajukan secara sistematik di peringkat nasional dan global untuk membantu membuat keputusan klinikal dalam tuntutan kecuaiaman perubatan dan di mahkamah, garis panduan ini akan bertindak sebagai sumber maklumat yang diiktiraf dan dipercayai¹⁰. Mereka dapat dilihat sebagai standard normatif dan digunakan sebagai standard perawatan eksplisit pada masa proses klinikal dan juga untuk menilai sejauh mana amalan yang dipersoalkan sesuai dengan standard yang diterima¹¹. Oleh hal yang demikian doktor adalah bertanggungjawab mematuhi Garis Panduan Klinikal sebagai panduan klinik dan menjadi pra syarat mengutamakan pesakit melebihi dari perkara lain. Garis panduan klinikal adalah "peraturan (SOP) yang dibangunkan secara sistematik untuk membantu doktor dan pesakit membuat keputusan mengenai keputusan rawatan sesuai untuk keadaan klinikal tertentu" (Woolf, S. H., Grol, R., Hutchinson, A., Eccles, M., & Grimshaw, J., 1999). Justeru kegagalan doktor mematuhi dan mengambil kira peraturan ini akan mendedahkan mereka kepada kesilapan dan kecuaiaman rawatan. Ini dibuktikan oleh Schwendimann, R., Blatter, C., Dhaini, S., Simon, M., & Ausserhofer, D. (2018) dalam kajian mereka di beberapa negara, mendapati operasi / pembedahan / ubat-ubatan / cecair, dan jangkitan dalam penjagaan kesihatan berlaku akibat tidak mematuhi panduan klinikal.

⁷ C. Claudia, *Unlocking Medical Law And Ethics*, Hodder Education Ed. 1, 2012, hlm 175.

⁸ Fahrah Syaliza Mokhtar, Anisah Che Ngah, *Pesakit Sebagai Pengguna Di Dalam Sistem Penjagaan Kesihatan Di Malaysia: 1 Cabaran* <https://www.academia.edu/11521242/> (13 Mei 2015).

⁹ <http://tcm.moh.gov.my/ms/upload/kodetika.pdf>

¹⁰ Hurwitz B. How does evidence based guidance influence determinations of medical negligence? *BMJ*. 2004;329:1024–8.

¹¹ Davies J. Clinical guidelines as a tool for legal liability. An international perspective. *Med Law*. 2009;28:603–13.

5.3 Gaya Komunikasi Doktor

Gaya komunikasi seperti berlemah lembut, tidak meninggikan suara akan memberi keyakinan kepada pesakit serta memudahkan proses diagnosis rawatan. Komunikasi interpersonal antara doktor dengan pesakit adalah paling berkesan dalam mempengaruhi hasil kesihatan yang positif (Simpson et al., 1991). Oleh itu gaya komunikasi doktor akan mempengaruhi tingkahlaku dan kesihatan pesakit. Ini kerana ia dapat membentuk hubungan dan interaksi di antara doktor dengan kakitangan perubatan yang lain dan sistem sokongan sosial pesakit terbabit yang terdiri daripada kenalan terdekat mereka seperti keluarga dan rakan-rakan (Cingi, Hanci & Muluk, 2015). Namun terdapat dalam kalangan doktor tidak mengutamakan kesopanan, kemesraan dan menunjukkan kasih sayang terhadap pesakit, ada juga dalam kalangan doktor yang mempunyai sifat egos, kurang keyakinan terhadap pesakit (Foronda, C., MacWilliams, B., & McArthur, E., 2016). Sehubungan dengan itu komunikasi yang baik di antara pesakit dengan doktor akan dapat menyampaikan mesej dan maklumat kesihatan yang tepat dan menentukan kejayaan konsultasi perubatan disamping memberi kesan kepada kesihatan pesakit ke arah yang lebih baik (Haron & Ibrahim, 2013).

5.4 Gagal Membuat Diagnosis dan maklumat Komplikasi

Proses diagnostik tidak hanya membuka jalan untuk rawatan, tetapi juga berfungsi sebagai sejenis rawatan. Kegagalan untuk mendiagnosis terhadap pesakit sangat memberi kesan kepada mereka. Hasil diagnosis yang tidak tepat akan menghasilkan keputusan yang salah dan menjurus kepada rawatan yang dianggap sebagai kecuai. Sehubungan dengan itu doktor, sewajarnya terlebih dahulu memaklumkan kepada pesakit jika terdapat sebarang risiko ketika rawatan yang akan dijalankan ke atas mereka. Ini penting bagi pesakit untuk mengetahuinya, terutama jika rawatan itu mempunyai risiko komplikasi. Oleh itu harus ada persetujuan sebagai prosedur perubatan dan perlu ditandatangani oleh pesakit, sebagai persetujuan tidak akan membuat tuntutan kepada doktor. Selalunya terdapat kesilapan dalam menyampaikan maklumat komplikasi. Sebagai contoh, komplikasi diketahui akan berlaku 10% tetapi borang persetujuan menyatakan bahawa ia berlaku hanya 1%, maka borang persetujuan tersebut dianggap salah. Ini lah yang sering terjadi kepada pesakit, yang mengakibatkan mereka menanggung kecederaan selepas rawatan. Doktor tidak sewajarnya meneruskan rawatan keatas pesaki jika sudah mengetahui komplikasi akan berlaku, sekali pun ia berlaku denga kadar yang kecil. Jika rawatan tersebut diteruskan juga, maka perbuatan cuai boleh dikenakan kepada doktor

6. Kesan Kepada Perkhidmatan Kesihatan

Perkhidmatan kesihatan yang membabitkan semua rawatan terhadap pesakit sangat meninitberatkan kepada keesahan dan kualiti terhadap tugas tersebut. Hasil rawatan yang berkesan akan memberi justifikasi baik kepada semua pihak. Situasi ini memberi kesan kepada kepuasan hati pesakit yang sangat memerlukan kepada rawatan daripada doktor (Frosch, D. L., 2012). Ia juga memberi impak yang releven kepada kualiti sesebuah hospital dan klinik yang telah memberi perkhidmatan kepada pesakit (Abuosi, A. A., & Atinga, R. A., 2013). Sehubungan dengan itu pihak terbabit iaitu pengurusan hospital dan klinik, serta para doktor, hendaklah bertanggungjawab kepada elemen yang boleh membawa kepada kegagalan pengurusan perkhidmatan.

6.1 Kecacatan Fizikal Dan Gangguan Emosi

Perkhidmatan penjagaan kesihatan yang berkualiti adalah perkhidmatan yang mendatangkan kegembiraan pesakit secara konsisten (Mosadeghrad, 2013). Rawatan yang berkesan sangat penting kerana ia menggambarkan kepakaran pihak doktor merawat pesakitnya. Justeru rawatan yang meninggalkan kesan yang buruk akan mengakibatkan mereka menanggung derita sepanjang hayat dan menjadi murung, merana kerana kecewa dengan kelemahan dan kecuiaan doktor (Renkema, E., Broekhuis, M., & Ahaus, K., 2014). Kesan tersebut selaras dengan pandangan Ali, N. (2007) yang menyatakan bahawa pesakit akan turut membuat tuntutan pampasan dari mahkamah kerana mereka telah mengalami kerosakan kekal fizikal atau mengalami gangguan perasan atau emosi mereka.

6.2 Nama Dan Status Organisasi

Selain kesan kepada pesakit yang terpaksa menanggung kerugian kerana berdepan dengan kecacatan fizikal sepanjang hayat, turut terjejas adalah organisasi perubatan yang telah menimbulkan kes-kes kecuiaan dan kesalahan kinikal terhadap pesakit mereka. Hospital akan dianggap sebagai sebuah organisasi perkhidmatan kesihatan yang bukan lagi sebagai tempat yang selamat bagi seseorang pesakit untuk mendapatkan rawatan (Noh, N. A., Wahab, H. A., & Ah, S. H. A. B., 2014). Bahkan pesakit dan masyarakat akan memandang serong dan kurang yakin terhadap kebolehan doktor yang bertugas di hospital tersebut. Hospital akan terdedah juga kepada penanggungan kos tuntutan mahkamah yang perlu dibayar kepada pesakit. Hospital berkenaan juga telah mula dikenali sebagai sebuah hospital yang gagal memenuhi keperluan perubatan yang menjadi tuntutan masyarakat sekelilingnya (www.sinarharian.com.my/article-kesan). Sungguhpun begitu ia amat jarang berlaku, tetapi menurut kajian terdahulu ia masih berlaku malah terus meningkat (Radhakrishnan, 2003).

7. Cadangan

Pesakit beserta keluarga mereka perlu diberitahu akan maklumat-maklumat yang penting berkenaan dengan rawatan. Di Malaysia, pesakit sangat peka dan sedar akan hak mereka sebagai pengguna dan pastinya mereka mahukan perkhidmatan yang terbaik sebagai balasan. Namun begitu di dalam kes-kes kecuiaan perubatan yang melibatkan standard tugas berhati-hati seorang doktor terutamanya dalam aspek pendedahan maklumat. Namun pertimbangan penambahbaikan yang boleh dilakukan oleh mahkamah di Malaysia dalam menentukan standard tugas berhati-hati dalam aspek pendedahan maklumat hendaklah mengiktiraf hak pesakit dengan melakukan *check and ballance* di dalam kes-kes kecuiaan perubatan yang melibatkan isu pendedahan maklumat. pengurusan hospital supaya berlaku adil terhadap pesakit dengan memberitahu atau mendedahkan kepada mereka akan risiko berdasarkan hak-hak pesakitnya. Sekali pun dalam menjalankan tugas dengan berhati-hati namun seorang doktor perlu mendedahkan pesakitnya kepada risiko dalam rawatan yang boleh menjejaskan kesihatan mereka¹². Perlembagaan Persekutuan telah menggariskan kebebasan peribadi yang dinyatakan dalam Perkara 5 sehingga Perkara 13. Perkara 5(1)¹³ khususnya menyatakan bahawa:

¹² Dr. Puteri Nemie Jahn Kassim, *Medical Negligence Law in Malaysia*, hlm 65.

¹³ Perlembagaan Persekutuan Malaysia, 1957

“Tiada seorang pun yang boleh diambil nyawanya atau dilucutkan kebebasan dirinya kecuali menurut undang-undang.”

Oleh itu itu, adalah adalah perlu pihak mahkamah mempertimbangkan sama ada seorang doktor itu boleh disabitkan dengan kesalahan pelanggaran tugas sekiranya gagal mendedahkan apa-apa perkara berkenaan dengan rawatan ataupun prosedur kepada pesakit. Pihak mahkamah perlu menekankan berhubung kepentingan autonomi pesakit dan hak pesakit. Jesteru pihak doktor perlu diwajibkan menyediakan ganti rugi kepada pesakit jika tuntutan kecuaiian berasas. Di Malaysia mahkamah mengekalkan prinsip penghakiman secara menyeluruh iaitu para doktor adalah dianggap tidak cuai sekiranya mereka bertindak mengikut amalan biasa perubatan, ini kelas berlaku terhadap tuntutan yang melibatkan saman dalam pengaplikasian kes Bolam di tolak¹⁴. Bagaimapun dalam situasi yang berbeza mahkamah Pulau Pinang, telah memihak kepada seorang bekas atlet pecut negara Nor Azleen Mohammad Mustafa, 25 dengan menerima kes saman terhadap seorang pakar ortopedik Pusat Perubatan Universiti Malaya (PPUM), yang didakwa cuai ketika melakukan pembedahan membetulkan tulang belakangnya pada tahun 2005¹⁵.

Dalam kaitan perkara ini, doktor boleh mengelakan diri mereka terdedah kepada kecuaiian dan kesilapan jika diterapkan dengan elemen etika islam. Kefahaman menjalankan tugas menerusi etika islam dapat membimbing doktor takut terhadap takdir Allah jika pelaksanaan tugas tidak dijalankan dengan baik dan berkesan. Etika bermaksud peraturan yang telah ditetapkan untuk dipatuhi oleh individu atau ahli kumpulan. Ini sebagai disiplin atau peraturan dalam menentukan apa yang baik dan mana yang buruk dan mempunyai hubungan dengan akhlak. Ini bermaksud etika adalah peraturan yang berkaitan dengan tingkah laku dalam menentukan baik atau buruk Basir, A., & Alias, J. (2012). Tingkah laku kerja dari perspektif Islam adalah tingkah laku seorang yang berhubung dengan kerja dan dilakukan dengan kesedaran dan kepatuhan kepada nilai dan prinsip yang digariskan oleh al-Quran dan al-Sunnah. Melalui pendekatan Islam, pekerja boleh dimotivasikan dengan mengingatkan tentang ganjaran di akhirat (Shamim, 2012). Etika Islam adalah asas untuk menggerakkan urusan dan mengatur aktiviti kehidupan individu dan masyarakat agar memperoleh kebaikan dalam urusan kehidupan (Shariff, S. M., Mohtar, S., & Jamaludin, R., 2018). Ia menjadi penghubung keimanan seseorang terhadap Islam. melalui perbuatan baik, buruk, benar dan salah dalam tindakan manusia yang berasal daripada al-Quran dan hadis Nabi s.a.w. (Habibah, S., 2015) Justeru para doktor dapat melaksanakan tugas dengan selamat dan berkesan jika mematuhi prosedur perubatan serta amalan prinsip etika Islam.

8. Kesimpulan

Kajian ini menunjukkan bahawa kecuaiian dan kesalahan yang berlaku dalam rawatan terhadap pesakit adalah disebabkan oleh beberapa kelemahan yang didapati daripada kelalaian doktor. Dapatan kajian ini menjelaskan bahawa doktor didapati gagal mengikut perturan seperti tidak mematuhi SOP, gagal membuat diagnosis dan komplikasi, gaya komunikasi doktor dan gagal mematuhi Garis Panduan Klinikal. Prosedur-prosedur ini sangat penting dititikberatkan oleh pada doktor. Kecederaan dan kerosakan kekal fizikal yang dialami oleh pesakit akan menyebabkan

¹⁴ ibid

¹⁵<https://www.bharian.com.my/taxonomy/term/11/2015/05/57893/bekas-atlet-pecut-menang-kes-saman-pakar-ortopedik>

kerugian dan mengalami gangguan perasaan atau emosi. Sepanjang hayat mereka Ali, N. (2007). Oleh itu doktor adalah bertanggungjawab kepada keselamatan pesakit. Ini kerana kecuaiian dalam rawatan, pihak mahkamah tidak akan memihak kepada pesakit kerana doktor telah dianggap mengikuti segala prosedur perawatan terhadap pesakitnya. Justeru, apa yang diperlukan adalah suatu sistem yang memastikan kebertanggungjawaban doktor untuk menentukan pemberian pampasan yang adil kepada pesakit dan tidak mengambil masa yang lama. Oleh hal yang demikian, menyedari isu-isu ini, maka pembaharuan dalam tanggungjawab perubatan amat perlu diberi perhatian oleh semua pihak. Kajian ini menunjukkan bahawa sistem litigasi tidak berjalan dengan memuaskan terhadap pesakit. Ini dapat dilihat kepada pemberian pampasan yang tidak adil dan mencukupi, bagi menyelesaikan masalah tuntutan akibat kecuaiian doktor.

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Burnout dalam Kalangan Guru Sekolah Rendah : Satu Kajian Rintis

Nurul Atiqah Mustaffa^{1*}, Faridah Mydin Kutty¹

¹ Sekolah Kebangsaan Batu Muda, Universiti Kebangsaan Malaysia

* Pengarang Koresponden: p99430@siswa.ukm.edu.my

Abstrak: *Burnout merupakan antara masalah kesihatan mental yang berlaku dalam kalangan guru. Kajian rintis ini dilaksanakan bagi menguji kebolehpercayaan instrumen Inventori Burnout Maslach yang terdiri daripada tiga dimensi iaitu keletihan emosi, depersonalisasi dan pencapaian peribadi. Seramai 30 orang guru sekolah kebangsaan di Selangor terlibat dalam kajian ini. Data kajian kuantitatif ini diperolehi daripada soal selidik dan dianalisis menggunakan perisian SPSS. Soal selidik ini mengandungi 22 item menggunakan skala Likert. Dapatan kajian menunjukkan tahap kebolehpercayaan alpha Cronbach soal selidik adalah tinggi iaitu 0.908. Instrumen ini juga boleh dijadikan panduan atau sumber rujukan dalam mengenalpasti tahap burnout guru di sekolah. Ini dapat membantu pihak pengurusan sekolah bagi memastikan emosi atau kesihatan mental guru berada dalam keadaan yang baik semasa menjalankan tugas. Kesimpulannya, soal selidik ini boleh digunakan dalam kajian ke peringkat seterusnya.*

Kata Kunci: Kajian rintis, kebolehpercayaan, *burnout* guru, keletihan emosi, depersonalisasi, pencapaian peribadi

1. Pengenalan

Kerjaya sebagai guru antara profesyen penting dalam meningkatkan kualiti sistem pendidikan. Guru adalah agen penyampai dan pelaksana dalam merealisasikan dasar pendidikan negara. Peranan guru juga semakin bertambah terutamanya pada era Abad-21 ini. Tanggungjawab guru bukan sekadar mengajar namun bertindak sebagai fasilitator atau pemudahcara semasa menjalankan pengajaran dan pemudahcaraan di dalam bilik darjah. Guru juga sering dibebani dengan rutin pengkeranian seperti menguruskan surat-menyurat sehingga mengganggu waktu persediaan guru untuk mengajar. Beban tugas guru yang semakin meningkat memberikan impak yang besar kepada kualiti pengajaran dan pembelajaran guru, kepuasan kerja serta kestabilan emosi. Apabila guru tidak dapat menghadapi cabaran dalam dunia pendidikan secara tidak langsung membawa kepada stress yang tinggi (Sapora Sipon, 2010). Sekiranya guru gagal mengurus stress dengan baik dibimbangi membawa kepada gejala *burnout*.

Bebanan tugas dan tekanan ini diburukkan lagi apabila terdapat segelintir masyarakat yang memandang kerjaya guru mudah kerana waktu bekerja sedikit serta dapat pulang awal berbanding pekerjaan lain. Realitinya guru berada dalam sebuah organisasi yang dihujani dengan lambakan tugas kadangkala diperolehi secara tidak dirancang dalam satu-satu masa yang tidak dijangka (Ali, 2011). Dilaporkan juga bahawa 46 dari 100 guru mengaku mengalami tekanan harian yang tinggi ketika bekerja, menjadikan kerjaya guru antara profesion yang mudah mendapat tekanan (Greenberg et al., 2016). Guru yang sering mengalami tekanan yang tinggi berisiko kepada

burnout. Ini kerana *burnout* dikaitkan dengan tekanan, keletihan dan kekecewaan yang dialami di persekitaran kerja terutamanya oleh mereka yang selalu berhubung dengan orang lain (Jacobson, 2016; Arvidsson et al., 2016; Özdemir & Demir, 2017).

Pernyataan Masalah

Umumnya, gejala *burnout* sering dialami oleh bidang kerjaya yang melibatkan kemahiran interaksi dan komunikasi (Oplatka, 2002; Hoyos & Kallus, 2005). Profesyen keguruan adalah salah satu daripada bidang tersebut. Keperluan dalam menyemai nilai kemanusiaan terhadap generasi baharu terutamanya kanak-kanak adalah satu tanggungjawab dan cabaran yang perlu digalas sebagai seorang guru. Interaksi daripada pelbagai ragam manusia boleh mendedahkan guru dengan simptom keletihan yang serius. Secara purata, 30% guru yang memasuki profesion keguruan akan berhenti dalam tempoh lima tahun pertama (Farmer, 2017). Ini membuktikan bahawa guru mempunyai risiko dalam mengalami simptom *burnout*.

Gejala *burnout* ini jika tidak dipandang serius boleh membawa kepada gangguan fizikal dan emosi. Individu ini kebanyakannya mengalami migrain, ulser, insomnia selain kemurungan, pesimisme dan mudah marah (Hock, 1988). Guru yang *burnout* tidak mampu melakukan pekerjaan dengan efisien dan akan menyebabkan kualiti hasil kerja guru tidak memuaskan (Burnsting, Sreckovic & Lane, 2014). Mereka akan mengabaikan tugas hakiki, berasa terasing dengan persekitaran di tempat kerja, datang lewat, mempunyai kecenderungan untuk berhenti bekerja lebih awal, prestasi semakin merundum, hubungan kurang baik dengan rakan sekerja, masalah kesihatan seperti rendah diri, cepat marah, kemurungan, insomnia dan pengambilan ubat-ubatan dan alkohol (Sürgevil, 2006; Karaman, 2009; Izgar, 2001).

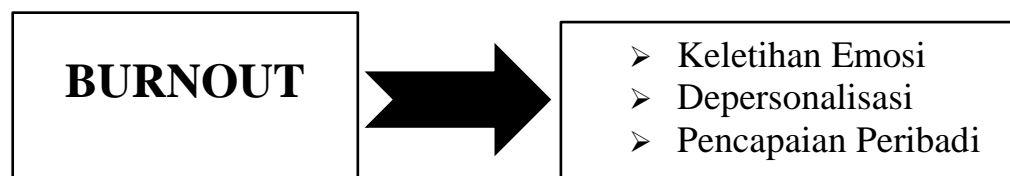
Justeru itu, kajian ini dilakukan untuk melihat kebolehpercayaan instrumen *burnout* sebagai salah satu alat melihat tahap *burnout* guru di sekolah rendah. Hal ini penting agar gejala *burnout* ini dapat dikenalpasti serta dirawat agar tidak memberikan kesan kepada kualiti pengajaran guru dan pembelajaran murid.

Objektif Kajian

Kajian rintis ini dilaksanakan untuk mengukur tahap kebolehpercayaan instrumen *burnout* yang mengandungi tiga dimensi iaitu keletihan emosi, depersonalisasi dan pencapaian peribadi terhadap guru sekolah rendah di Selangor.

Persoalan Kajian

Apakah tahap kebolehpercayaan antara tiga dimensi *burnout* iaitu keletihan emosi, depersonalisasi dan pencapaian peribadi bagi guru sekolah rendah di Selangor?



Rajah 1 : Kerangka Konsep

2. Kajian Literatur

Burnout

Penggunaan istilah *burnout* telah diperkenalkan oleh Freudenberger (1974) yang menggambarkan individu yang mengalami kegagalan dan kelesuan disebabkan tuntutan yang terlalu banyak ke atas tenaga, sumber-sumber serta ketabahan individu. Menurut Leiter dan Maslach (1988), *burnout* juga adalah reaksi emosi negatif individu yang mengalami tekanan berpanjangan di tempat kerja. *Burnout* boleh dirumuskan sebagai satu pembolehubah yang berterusan bermula dari tahap rendah ke tahap sederhana kemudian ke tahap yang tinggi terhadap pengalaman ketandusan emosi, depersonalisasi dan pencapaian peribadi yang rendah (Maslach et al., 1996).

Faktor *Burnout*

Terdapat tiga faktor yang boleh mempengaruhi gejala *burnout* kepada individu seperti faktor peribadi, alam sekitar dan organisasi (Shraga Fisherman, 2015). Faktor peribadi ini melibatkan imej diri, pengalaman dan kekangan masa. Guru yang mempunyai imej diri yang terlalu merendah diri merasakan mereka tidak dapat menyumbang atau tidak berguna kepada orang lain seterusnya membawa kepada gejala *burnout*. Pengalaman bekerja juga menyumbang kepada simptom *burnout*. Mengikut Molly Fisher (2015), guru yang kurang pengalaman atau baharu menceburi bidang pendidikan seringkali mengalami *burnout* berbanding guru yang sudah lama mengajar. Ini menunjukkan bahawa tahap *burnout* guru berbeza mengikut pengalaman mengajar. Menurut Hakanen & Koivumaki (2014), bebanan kerja juga antara faktor berlakunya *burnout*. Merujuk Matiang, Makewa & Role, (2016) turut menyatakan bahawa lambakan tugas yang banyak kepada guru mengganggu waktu peribadi. Bebanan kerja menyebabkan guru perlu menyambung tugas di rumah dalam keadaan keletihan. Ini akan mengganggu waktu bersama keluarga juga menjadi punca *burnout* dalam kalangan guru.

Faktor alam sekitar seperti interaksi guru dengan murid turut menyumbang kepada gejala *burnout*. Guru perlu menghadapi pelbagai tingkah laku murid yang berbeza dan kadangkala sukar dikawal (Richard Hastings & Mohammed Bham, 2013). Faktor organisasi juga boleh menjadi punca *burnout* yang disebabkan gaji yang rendah, kurang rasa hormat dari masyarakat, kekurangan mendapat peluang kerjaya yang lebih baik serta terdapat permintaan yang tidak munasabah (Shraga Fisherman, 2015). Merujuk Sahar Mohamed (2015) berpendapat persekitaran kerja yang tidak inovatif akan memberikan tekanan dan peratusan yang tinggi untuk mendapat *burnout*. Hasil kajian Fatima Al Adwan & Majed Mohammad (2017) menunjukkan *burnout* guru berpunca daripada pengurusan hubungan guru dan ibubapa. Guru berasa tertekan apabila perlu memenuhi permintaan dan harapan yang tinggi daripada ibubapa dan pihak sekolah. Hal ini memberi kesan tekanan psikologi yang tinggi kepada guru dan boleh membawa kepada gejala *burnout* jika tidak segera diurus dengan baik.

Kesan *Burnout*

Gejala *burnout* memberi kesan negatif kepada guru sekiranya tidak segera diberikan rawatan. Tekanan yang tinggi dan berlebihan juga akan menjejaskan kesihatan individu dari segi fizikal dan emosi (Kubiat Ineme & Mfon Ineme, 2016). Kebiasaannya, individu ini sering mengalami masalah kesihatan seperti pengambilan alkohol yang berlebihan, mengalami gangguan tidur, kemurungan, masalah lebihan berat badan, sakit otot dan tulang (Khamisa, Peltzer & Oldenburg,

2013). Masalah kesihatan yang dialami mempengaruhi emosi individu tersebut. Keadaan keletihan individu yang melampau ditambah dengan emosi yang kurang stabil boleh mengurangkan semangat guru untuk mengajar di dalam kelas selain bersikap negatif, pasif dan tidak mempedulikan prestasi pembelajaran murid. Hal ini secara tidak langsung menjejaskan prestasi pencapaian individu.

Burnout yang tidak dirawat pada peringkat awal juga turut menyebabkan individu mengalami gangguan depresi (Bahlmann, Angermeyer & Schomerus, 2013). Hal ini disokong dalam kajian yang telah dibuat oleh Bakker, Demerouti, & Sanz Vergel (2014), yang menyimpulkan bahawa *burnout* bermula daripada perasaan kesusahan dan mengalami kemurungan di tempat kerja dan boleh membawa kepada gejala *burnout* sehingga menjejaskan prestasi kerja seseorang. Di samping itu, kemurungan menyebabkan guru mengalami masalah dalam berkomunikasi dengan orang sekeliling samada dengan ahli keluarga dan rakan sekerja. Guru lebih suka bersendirian daripada bersosial dengan orang sekeliling (Donna Jacobson, 2016). Justeru itu, guru perlulah meminumkan simptom *burnout* ini agar matlamat pengajaran dapat dicapai (Maslach & Cristina, 2003).

Tiga Dimensi Inventori Burnout Maslach

Inventori Burnout Maslach ini telah diadaptasi untuk digunakan dalam profesyen perguruan. Inventori Burnout Maslach dibina oleh Maslach et al., (1996) atas beberapa sebab antaranya ialah kerjaya guru merupakan pekerjaan yang paling banyak di Amerika Syarikat ketika itu. Selain itu, guru juga menerima tekanan yang agak tinggi daripada masyarakat. Terdapat laporan antarabangsa juga menunjukkan guru meninggalkan profesyen ini dan hanya sedikit yang memilih kekal dalam bidang ini (Maslach et al., 1996). Terdapat tiga dimensi yang menerangkan tentang konsep *burnout*. Menurut Maslach dan Jackson (1981a, 1981b) dimensi tersebut iaitu kelelahan emosi, depersonalisasi dan pencapaian peribadi.

Jadual 1: Dimensi dalam Inventori Burnout Maslach

Bil	Dimensi	Penerangan	Sumber
1	Keletihan Emosi	Keletihan emosi merupakan perasaan ketegangan dan ketandusan sumber emosi dan fizikal (Cropanzano, Rupp & Byrne, 2003) serta ditandai dengan kelelahan fizikal dan kebimbangan yang berpanjangan (Wright & Cropanzano, 1998)	Cropanzano, Rupp & Byrne (2003), Wright & Cropanzano, (1998)
2	Depersonalisasi	Depersonalisasi terjadi apabila seseorang individu mempunyai persepsi negatif terhadap orang lain serta merasakan pekerja melihat orang lain sebagai layak mendapat masalah mereka.	Ryan, (1971)
3	Pencapaian Peribadi	Pengurangan pencapaian peribadi merujuk sebagai perasaan keletihan, mempunyai pandangan sinis dan mempunyai pandangan negatif terhadap pekerjaan seseorang.	(Peng, Zhang, Tian, Miao, Xiao & Zhang, 2014)

Kesahan dan Kebolehpercayaan

Kesahan adalah merujuk kepada mengukur apa yang sepatutnya diukur (Kerlinger, 1986). Sebelum kajian rintis dilakukan, pengkaji perlu melalui proses kesahan bagi instrumen soal selidik yang digunakan. Kesahan yang dijalankan iaitu kesahan muka dan kesahan kandungan. Kesahan muka diperoleh melalui proses *back to back translation* dan diperiksa oleh guru bidang bahasa.

Menurut Tuckman (1999), Anastasi dan Urbina (1997) mendefinisikan kesahan kandungan sebagai kebolehan sesuatu alat ukur mengukur apa yang hendak diukur berdasarkan kerangka teori kajian. Terdapat dua peringkat yang perlu ditekankan dalam menentukan kesahan kandungan iaitu peringkat pembinaan instrumen dan peringkat pengesahan item (Lynn, 1986). Peringkat pembinaan instrumen menekankan penyediaan item yang menepati konseptual sesuatu konstruk. Bilangan item yang dibina perlu banyak sebelum disemak oleh pakar untuk memastikan setiap item perlu dikekalkan atau digugurkan (Nunnally & Berstein, 1994; Mckenzie et al., 2001). Tujuan ujian kebolehpercayaan adalah untuk mengukur kestabilan serta ketekalan instrumen soal selidik dalam mengukur konsep dan membantu menilai ianya baik atau tidak (Sekaran & Bougie, 2009).

3. Metodologi Kajian

Kajian ini menggunakan pendekatan kuantitatif dengan rekabentuk kajian tinjauan. Kajian tinjauan sesuai dijalankan terutamanya semasa mengumpul maklumat bagi populasi bersaiz besar. Kebanyakan penyelidikan dalam bidang sains sosial (Chua, 2006) dan bidang pendidikan (McMillan, 2012) menggunakan instrumen soal selidik dalam kajian tinjauan. Seramai 30 orang responden dalam kalangan guru di sekitar Selangor telah menjawab soal selidik. Responden terdiri daripada guru yang mengajar di sekolah rendah kebangsaan. Kajian rintis ini dijalankan bagi mengukur nilai kebolehpercayaan instrumen soal selidik Inventori Burnout Maslach. Pengkaji dapat melihat tahap kebolehpercayaan soal selidik berpandukan nilai Alpha Cronbach. Nilai pekali Alpha Cronbach yang mendekati 1.00 menunjukkan kebolehpercayaan dan ketekalan instrumen adalah tinggi.

Populasi dan Sampel

Merujuk kepada Unit Data Jabatan Pendidikan Wilayah Persekutuan Kuala Lumpur, jumlah guru sekolah rendah kebangsaan yang terdapat di Kuala Lumpur ialah 6607 orang guru dan saiz sampel untuk kajian ini ialah seramai 364 orang mengikut Krejcie & Morgan (1970). Oleh itu, satu kajian rintis perlu dilaksanakan sebelum menjalankan kajian sebenar. Tujuan kajian rintis dijalankan adalah untuk menguji dan meningkatkan kesahan dan kebolehpercayaan instrumen (Chua, 2006) serta mengenalpasti kelemahan bagi setiap item (Creswell, 2014). Pengkaji akan membuat penambahbaikan bagi setiap item yang lemah dan kabur. Johanson dan Brooks (2010) menyatakan bahawa bilangan minimum bagi sebuah kajian rintis ialah 30 orang. Justeru itu, pengkaji telah memilih 30 orang guru secara rawak dalam kajian rintis ini.

Instrumen Kajian

Dalam instrumen soal selidik dibahagikan kepada dua bahagian. Bahagian A terdiri maklumat demografi sampel seperti jenis jantina dan pengalaman mengajar. Bahagian B pula menggunakan instrumen Inventori Burnout Maslach yang diadaptasi daripada Maslach, Jackson & Schwab, (1986). Instrumen ini juga digunakan oleh pengkaji-pengkaji terdahulu seperti Larrivee (2012), Eltayef (2014), dan Laila dan Kamariah (2019). Pengkaji telah membuat kesahan muka dan kandungan terhadap soal selidik ini. Set soal selidik ini menggunakan prosedur menterjemah kembali untuk memastikan "*Understandability*" dalam instrumen penyelidikan. Sebagai contoh, pengkaji membuat kesahan muka melalui terjemahan '*back-to back*' yang telah disemak oleh dua orang guru bahasa. Selain itu, pengkaji turut mendapatkan kesahan kandungan daripada dua orang pensyarah bidang Psikologi. Sebelum membina soal selidik, pengkaji akan berbincang dengan

pensyarah bagi mendapatkan pandangan berkaitan cadangan penambahbaikan setiap item yang akan digunakan dalam kajian.

Terdapat tiga aspek dalam soal selidik ini iaitu aspek keletihan emosi, depersonalisasi dan pencapaian peribadi. Instrumen ini mengandungi 22 item yang berkaitan kekerapan responden mengalami perasaan atau pengalaman gejala burnout. Soal selidik ini menggunakan skala likert 5 mata (1-tidak pernah, 2-jarang-jarang, 3-kadang-kadang, 4- kerap kali, 5-sangat kerap). Menurut McMillan dan Schumacher (2006), pentaksiran pandangan serta kepercayaan adalah agak tepat apabila menggunakan skala Likert 5 mata dalam soal selidik. Penggunaan skala likert juga sering dijadikan alat psikometrik asas dalam penyelidikan sains sosial dan pendidikan (Joshi, Kale, Chandel & Pal, 2015).

Prosedur Kajian

Pengkaji telah membuat soal selidik dalam bentuk 'google form' bagi memudahkan sebaran kepada sampel dan dapat menjimatkan masa. Responden terdiri daripada guru yang telah mengajar sekurang-kurangnya setahun dan merupakan guru tetap di sekolah tersebut. Dapatan data yang diperolehi selama tiga hari akan dianalisis menggunakan perisian *Statistic Package for Social Science* (SPSS) untuk melihat nilai pekali alpha Cronbach dalam menentukan pekali kepercayaan bagi pencapaian skor setiap item soal selidik. Mengikut Chua (2006), responden yang telah menjadi sampel kajian rintis dikecualikan semasa kajian sebenar dijalankan bagi mengelakkan berlaku sebarang ketidakadilan dalam hasil dapatan kajian.

Analisis Data

Data yang diperolehi daripada kajian rintis ini dianalisis serta diproses menggunakan perisian *Statistic Package for Social Science* (SPSS) 20.0. Pengkaji menggunakan pekali alpha Cronbach untuk menilai tahap kebolehpercayaan setiap item soal selidik. Kebolehpercayaan menurut Creswell (2014) bermaksud konsep ketekalan dan kestabilan bagi sesebuah instrumen. Kebolehpercayaan ini penting bagi memastikan sesebuah instrumen mampu untuk mengukur secara konsisten (Tavakol, Mohagheghi & Dennick, 2008). Bilangan item, korelasi item dan dimensi akan mempengaruhi nilai kebolehpercayaan instrumen (Cortina, 1993). Terdapat beberapa kajian daripada Nunnally (1994), Bland dan Altman (1997), dan DeVellis (2003) yang menyatakan nilai alpha yang diterima antara 0.70 hingga 0.95. Nilai alpha yang rendah atau menghampiri nilai sifar perlu diubahsuai atau dibuang. Item yang memperoleh nilai alpha yang terlalu tinggi juga tidak sesuai digunakan kerana kemungkinan item tersebut telah berulang namun dalam bentuk yang berbeza. Nilai maksimum alpha yang disarankan ialah 0.9 (Streiner, 2003).

4. Dapatan Kajian

Jadual 2 menunjukkan hasil analisis nilai kebolehpercayaan Inventori Burnout Maslach. Nilai alpha Cronbach bagi 22 item dalam soal selidik ini ialah 0.908 iaitu berada pada tahap kebolehpercayaan yang amat baik. Tiga dimensi dalam soal selidik ini menunjukkan aspek keletihan emosi sebanyak 7 item memperoleh nilai alpha 0.837, aspek depersonalisasi mempunyai 7 item merekodkan nilai alpha 0.870 manakala aspek pencapaian peribadi mengandungi 8 item mendapat nilai alpha 0.746. Dapatan kajian membuktikan nilai kebolehpercayaan soal selidik ini lebih tinggi daripada nilai 0.6. Justeru itu, instrumen ini boleh digunapakai dalam kajian yang seterusnya.

Jadual 2 : Analisis Nilai Kebolehpercayaan Inventori Burnout Maslach

Dimensi	Nombor Item	Bilangan Item	Nilai alpha (α) Cronbach
Keletihan Emosi	B1-B7	7	0.837
Depersonalisasi	B8-B14	7	0.870
Pencapaian Peribadi	B15-B22	8	0.746
Keseluruhan	B1-B22	22	0.908

Jadual 3 : Statistik Item

Nombor Item	Min	Sisihan Piawaian	Nilai alpha Cronbach jika item dibuang
B1	3.17	1.09	0.90
B2	3.87	0.94	0.90
B3	3.00	1.26	0.90
B4	3.60	0.93	0.90
B5	3.77	1.17	0.91
B6	2.97	1.22	0.90
B7	3.50	0.94	0.90
B8	2.73	1.20	0.90
B9	3.50	1.04	0.90
B10	2.20	1.13	0.90
B11	2.53	1.36	0.90
B12	2.03	1.19	0.90
B13	2.70	1.21	0.90
B14	2.13	1.22	0.91
B15	3.80	0.92	0.91
B16	3.93	0.98	0.91
B17	3.83	0.99	0.91
B18	2.43	1.28	0.90
B19	3.40	0.81	0.91
B20	2.07	1.17	0.91
B21	3.17	1.23	0.90
B22	2.57	1.19	0.90

5. Perbincangan dan Implikasi

Dapatan kajian rintis ini menunjukkan nilai kebolehpercayaan soal selidik Inventori Burnout Maslach bagi dimensi keletihan emosi, depersonalisasi dan pencapaian peribadi. Purata nilai alpha bagi ketiga-tiga dimensi ini berada pada tahap amat baik iaitu 0.908. Nilai alpha bagi setiap dimensi juga melebihi 0.70 dan ke atas. Dimensi depersonalisasi memperoleh nilai alpha Cronbach yang paling tinggi iaitu 0.870. Ini turut disokong oleh Mohd Majid (2000) menyatakan bahawa sekiranya nilai kebolehpercayaan melebihi 0.60 membuktikan instrumen tersebut mempunyai tahap konsistensi yang baik. Sekaran (2014) juga mengklasifikasikan kebolehpercayaan di bawah 0.6 sebagai lemah, nilai alpha mencapai 0.7 boleh diterima manakala nilai alpha melebihi 0.8 ialah

baik. Berdasarkan hasil analisis menunjukkan ketiga-tiga dimensi dalam instrumen ini boleh digunakan oleh pengkaji semasa menjalankan kajian sebenar melibatkan guru-guru sekolah rendah di Kuala Lumpur.

Kesimpulan

Kajian ini dijalankan dengan memfokuskan tahap kebolehpercayaan bagi instrumen Inventori Burnout Maslach yang telah diadaptasi daripada kajian Maslach, Jackson & Schwab (1986). Hasil dapatan kajian rintis membolehkan instrumen ini digunakan dalam kajian seterusnya yang melibatkan 370 orang guru daripada 10 buah sekolah kebangsaan yang dipilih secara rawak di Kuala Lumpur.

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Faktor-Faktor yang Mempengaruhi Penguasaan Pengajian Ilmu Qiraat: Satu Kajian di Maahad Tahfiz Al-Quran Wal Qiraat MAIK

(Factors that Influence the Mastery of Qiraat Study: A Case Study in Maahad Tahfiz Al-Quran Wal Qiraat MAIK)

Ahmad Mujahideen Yusoff¹, Muhammad Amiri Ab Ghani^{2*}, Norhanis Amran³, Ahmad Najib bin Abdullah⁴

¹ Jabatan Usuluddin, Kolej Islam Antarabangsa Sultan Ismail Petra (KIAS), Kelantan, Malaysia

² Jabatan al-Quran & Hadis, Kolej Islam Antarabangsa Sultan Ismail Petra (KIAS), Kelantan, Malaysia

³ Pusat Khidmat Akademik, Kolej Islam Antarabangsa Sultan Ismail Petra (KIAS), Kelantan, Malaysia

⁴ Akademi Pengajian Islam, Universiti Malaya (UM), Kelantan, Malaysia

* Pengarang Koresponden: amiri@kias.edu.my

Abstrak: Ilmu Qiraat semakin berkembang dengan kemunculan institusi pengajian yang menawarkan program pengajian yang berkaitan dengannya. Namun begitu, peringkat kajian tentang penguasaan pengajiannya masih kurang meluas. Oleh yang demikian, kajian ini dilakukan bagi melihat faktor-faktor yang mempengaruhi penguasaan pengajian Ilmu Qiraat di Maahad Tahfiz al-Quran Wal Qiraat MAIK (MTQ MAIK). Kajian kuantitatif ini merupakan sebuah kajian rintis dan instrumennya adalah menggunakan set soal selidik bagi mendapatkan data dan menggunakan aplikasi SPSS 21.0 bagi menganalisa data. Seramai 30 orang responden yang terdiri daripada pelajar-pelajar yang mengikuti program Diploma Tahfiz al-Quran Wal Qiraat di Maahad Tahfiz Al-Quran Wal Qiraat MAIK (MTQ MAIK) dari tahun 2018 hingga 2020 dijadikan sebagai sampel telah dipilih dengan menggunakan kaedah persampelan bertujuan (purposive sampling). Sebanyak 15 item yang meliputi teori dan amali didatangkan dalam soal selidik ini. Kajian mendapati bahawa peringkat penguasaan pelajar-pelajar berkenaan pengajian ilmu Qiraat berada pada peringkat sederhana. Perkara ini dikuatirkan dengan data yang didapati dari teori dan amali. Oleh itu, faktor peningkatan proses pengajaran dan pembelajaran secara teori dan amali sepatutnya ditingkatkan dan ditambahbaik supaya tahap penguasaan pengajaran ilmu Qiraat dalam kalangan pelajar dapat dinaikkan ke peringkat yang lebih tinggi.

Kata Kunci: Penguasaan, Qiraat, MTQ MAIK

Abstract: The knowledge of Qiraat is growing with the emergence of educational institutions that offer study programs related to it. However, the level of research on the mastery of his studies is still less widespread. Therefore, this study was conducted to look at the factors that influence the mastery of the study of Qiraat in Maahad Tahfiz al-Quran Wal Qiraat MAIK (MTQ MAIK). This quantitative study is a pilot study and the instrument is to use a set of questionnaires to obtain data and use SPSS 21.0 application to analyze the data. A total of 30 respondents consisting of students who followed the Diploma program in Tahfiz al-Quran Wal Qiraat at Maahad Tahfiz Al-Quran Wal Qiraat MAIK (MTQ MAIK) from 2018 to 2020 were selected as a sample using purposive sampling method. A total of 15 items covering theory and practice were included in this questionnaire. The study found that the level of mastery of students regarding the study of Qiraat

is at a moderate level. This is reinforced by data obtained from theory and practice. Therefore, the factor of improving the teaching and learning process in theory and practice should be improved and improved so that the level of mastery of teaching Qiraat knowledge among students can be raised to a higher level.

Keywords: Mastery, Qiraat, MTQ MAIK

1. Pengenalan

Antara cabang Ulum al-Quran ialah Ilmu Qiraat. Ilmu Qiraat merupakan satu ilmu yang hanya dipelajari oleh orang-orang tertentu sahaja. Antara sebab ilmu Qiraat kurang berkembang pada masa dahulu berbanding ilmu-ilmu lain seperti ilmu fekah dan ilmu akidah kerana masyarakat hanya berpada dengan satu Qiraat sahaja. Menurut Abdul Halim (2014), hal ini berlaku kerana kebanyakan masyarakat hanya terdedah dan mengetahui ilmu bacaan al-Quran daripada riwayat Hafis daripada 'Asim sahaja sedangkan pendedahan dan pengetahuan sebegini adalah merupakan sesuatu yang tidak patut berlaku kerana riwayat bacaan ini hanyalah merupakan salah satu daripada 20 riwayat bacaan al-Quran. Selain itu, penguasaan terhadap ilmu ini masih berada di peringkat pengukuhan berdasarkan dapatan-dapatan kajian yang lalu kerana objektif pembelajaran masih belum tercapai (Ali & Abdullah, 2016).

Namun pengajian ilmu qiraat di Malaysia pada masa kini bukan lagi menjadi suatu ilmu yang ganjil. Ini kerana hampir setiap institusi pengajian tinggi telah menawarkan pengajian yang berkaitan dengan ilmu qiraat (Muhammad Hafiz, Abd Muhaimin & Norazman, 2015). Maahad Tahfiz al-Quran Wal Qiraat MAIK (MTQ MAIK) merupakan salah sebuah institusi pengajian tinggi yang menawarkan program pengajian Diploma Tahfiz al-Quran Wal Qiraat yang diuruskan oleh Majlis Agama Islam dan Adat Istiadat Melayu Kelantan (MAIK) (Wan Muhammad Abdullah, 2021). Setakat ini, MTQ MAIK merupakan antara IPT yang turut menawarkan pengajian tersebut di peringkat pengajian tinggi di Kelantan.

2. Definisi Ilmu Qiraat

Dari sudut bahasa, qiraah menurut Sabir (1999) adalah masdar dari kalimah qara'a. Al-Qadhi (2014) menyebut bahawa qiraah jamaknya ialah qiraat. Manakala Sya'ban (2008) dan al-Fayruz Abadi (2019) pula menjelaskan perkataan qiraat adalah jamak bagi perkataan qiraah yang berasal dari qara'a yang bermaksud bacaan.

Manakala dari sudut istilah, para ulama telah memberikan pengertiannya, antaranya Ibn al-Jazari (2014) menyatakan bahawa ilmu Qiraat ialah satu ilmu yang membincangkan berkaitan kaedah bagi menyebut kalimah-kalimah al-Quran dan perselisihannya disamping menyandarkan kepada periwayatnya iaitu imam Qiraat. Menurut Muhaysin (1409H) menyebut bahawa ilmu Qiraat ialah ilmu yang berkenaan dengan cara-cara menyebut kalimah al-Quran dari sudut takhfif, tasydid, perbezaan lafaz-lafaz al-Quran yang terdaoat dalam huruf-huruf Hijaiyyah. Manakala al-Sobuni (2015) pula menakrifkan ilmu Qiraat sebagai suatu pandangan daripada beberapa pandangan dalam cara pembacaan al-Quran yang mana imam-imam Qiraat memilih satu cara yang berlainan penuturan ayat al-Quran dan ianya bersambung dari segi jalur sanadnya sehingga kepada Nabi S.A.W.. Secara kesimpulannya, ilmu Qiraat ialah satu ilmu yang menerangkan tentang cara-cara

bacaan al-Quran atau kepelbagaian penyebutan bacaan al-Quran yang mana ianya diriwayatkan daripada Nabi S.A.W. yang diriwayatkan daripada imam-imam Qiraat.

3. Maahad Tahfiz al-Quran Wal Qiraat MAIK (MTQ MAIK)

Di Malaysia, pengajian ilmu Qiraat bukanlah sejenis pengajian yang asing pada masa sekarang bahkan pengajian ilmu ini telah memperlihatkan perkembangan dan pertubuhan yang rancak sejak beberapa tempoh masa yang lalu (Daud, Abdullah & Mohd Saleh, 2015). Hal ini dapat dilihat melalui pertumbuhan pusat pengajian di setiap negeri yang menjadikan ilmu Qiraat sebagai subjek wajib bagi para pelajar yang menghafaz al-Quran (Ali & Abdullah, 2016). Antara pusat pengajian yang menawarkan program pengajian yang berkaitan dengan ilmu Qiraat ialah Maahad Tahfiz al-Quran Wal Qiraat Majlis Agama Islam dan Adat Istiadat Melayu Kelantan (MAIK). Maahad tahfiz ini telah ditubuhkan pada 25 Ogos 1980 dengan nama Kelas Tahfiz al-Quran Majlis Agama Islam dan Adat Istiadat Melayu Kelantan (MAIK). Ia dikendalikan di bawah pengawasan Sahib al-Samahah Dato' Mufti dan MAIK sebagai urusetia (Ab Rahman, Shukeri & Zulkifli, 2012). Pada 1 Februari 1993, satu permohonan telah diajukan kepada Pengarah Institut Pengajian Tahfiz al-Quran Pusat Islam Malaysia, Kuala Lumpur bagi mewujudkan program bersama Diploma Tahfiz al-Quran wal Qiraat dan permohonan tersebut telah diluluskan. Pada tahun 2007, nama Kelas Pengajian Tahfiz al-Quran Wal Qiraat Majlis Agama Islam dan Adat Istiadat Melayu Kelantan (MAIK) ditukarkan kepada Maahad Tahfiz al-Quran Wal Qiraat Majlis Agama Islam dan Adat Istiadat Melayu Kelantan (MAIK) dan nama ini telah diguna pakai sehingga ke hari ini (Mohd Sukeri, 2021).

Sistem pengajian di MTQ MAIK berasaskan kepada kurikulum Darul Quran JAKIM sepenuhnya. Sehubungan itu, pada tahun 2010 satu persefahaman (MOU) telah dicapai oleh pihak Maahad Tahfiz dengan Darul Quran JAKIM (Mohd Shahrir Muhaimi, 2021). Manakala mahasiswa/wi yang berjaya menamatkan pengajian akan mendapat Diploma Tahfiz al-Quran Wal Qiraat, Darul Quran (JAKIM). Mereka boleh melanjutkan pengajian pada peringkat ijazah di Institut Pengajian Tinggi (IPT) dari dalam dan luar negara (Wan Asma, 2021). Objektif umum penubuhan maahad tahfiz ini adalah untuk melahirkan huffaz, pendakwah, pendidik dan imam yang berwibawa, berketerampilan dan mahir selaras dengan keperluan ummah dan negara. Manakala objektif khas kepada penubuhan institut tahfiz ini adalah untuk melahirkan huffaz yang mahir dalam pembacaan dan pengajian ilmu al-Quran bagi memelihara kesucian dan kesahihan al-Quran al-Karim dan seterusnya membentuk generasi al-Quran yang bertakwa, berilmu dan bermanfaat kepada pembangunan negara dan ummah (Mohd Najmuddin, 2021). Program pengajian dijalankan selama enam semester iaitu selama tiga tahun. Program pengajian ini telah mendapat perakuan akreditasi daripada Agensi Kelayakan Malaysia (MQA) dan diiktiraf oleh Jabatan Perkhidmatan Awam (JPA). Diploma ini juga turut diiktiraf untuk menyambung pengajian di institut pengajian tinggi tempatan dan antarabangsa (Mohd Fadly Hisyam, 2021).

4. Metodologi Kajian

Kajian kuantitatif melalui kaedah soal selidik dilakukan untuk memperoleh keterangan sistematik berkaitan fakta dan ciri-ciri bagi sesuatu populasi atau skop kajian secara empirikal dan betul (Gay, 2003). Hal ini disebabkan oleh kaedah pengumpulan data bagi bentuk kajian ini dilakukan tanpa sebarang gangguan, manipulasi serta kawalan eksperimen. Oleh itu, fenomena yang dijelaskan oleh kajian sebegini adalah merupakan sebuah kajian semula jadi yang betul-betul terjadi di

lapangan. Kajian ini adalah kajian rintis yang berbentuk kuantitatif yang menggunakan set soal selidik sebagai instrumen untuk mendapatkan data dan SPSS 21.0 digunakan untuk menganalisis data. Sebanyak 15 item yang meliputi teori dan amali didatangkan dalam soal selidik ini. Kajian rintis ini telah dijalankan dalam kalangan pelajar-pelajar yang mengikuti program pengajian di peringkat Diploma Tahfiz al-Quran Wal Qiraat di MTQ MAIK yang melibatkan seramai 30 orang responden dari tahun 2018 hingga 2020 dijadikan sebagai sampel telah dipilih dengan menggunakan kaedah persampelan bertujuan (purposive sampling). Menurut Chua (2006), jumlah minima sampel kajian bagi kajian rintis adalah memadai seramai 30 orang responden sahaja.

5. Perbincangan

Kaedah pengumpulan data melalui skala jawapan jenis likert telah digunakan dalam kajian ini di mana lima mata sebagai skala bagi jawapan responden berkaitan semua item yang diaplikasikan dalam instrumen kajian. Skala likert sangat sesuai digunakan untuk mengukur pendapat yang dijawab oleh responden pada ruangan tertentu secara berterusan berkaitan sesuatu persepsi dan sikap (Cohen, 2017). Bagi instrumen kajian ini, responden dikehendaki memilih jawapan dengan menjawab salah satu daripada nombor 1 hingga 5 berdasarkan penjelasan bagi nombor-nombor tertentu iaitu 1: sangat lemah (tidak mengetahui apa-apa), 2: lemah (mengetahui sedikit), 3: sederhana (mengetahui sebahagian), 4: baik (mengetahui sebahagian besar) dan 5: sangat baik (mengetahui semua). Terdapat 15 item soalan yang meliputi teori dan amali telah diberikan kepada para responden sepertimana yang diterangkan di bawah ini:

Jadual 1: Deskriptif Responden Tentang Pengetahuan Berkaitan Pengenalan Ilmu Qiraat

Pengetahuan Berkaitan Pengenalan Ilmu Qiraat	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	2	7%
Sederhana	14	47%
Baik	11	36%
Sangat Baik	3	10%
Jumlah	30	100%

Jadual 1 menunjukkan tiada seorang (0%) pelajar yang sangat lemah. Bagi jawapan lemah, seramai 2 (7%) pelajar. Manakala sederhana pula, seramai 14 (47%) pelajar dan bagi jawapan baik pula seramai 11 (36%) pelajar. Akhir sekali, jawapan sangat baik iaitu seramai 3 (10%) pelajar. Tahap pengetahuan pelajar berkenaan pengenalan ilmu Qiraat memberikan jawapan sederhana adalah yang paling tinggi.

Jadual 2: Deskriptif Responden Tentang Tahap Penguasaan Kitab-Kitab Qiraat Dalam Bahasa Arab

Penguasaan Kitab-Kitab Qiraat Dalam Bahasa Arab	Kekerapan	Peratus
Sangat Lemah	0	0 %
Lemah	6	20%
Sederhana	20	67%
Baik	4	13%
Sangat Baik	0	0%
Jumlah	30	100%

Jadual 2 menunjukkan tiada seorang (0%) pelajar yang sangat lemah. Manakala jawapan lemah, pelajar telah menjawab jawapan lemah seramai 6 (20%) pelajar. Bagi jawapan sederhana pula, seramai 20 (67%) pelajar. Adapun bagi jawapan baik seramai 4 (13%) dan sangat baik pula, tiada seorang (0%) pelajar menjawab. Tahap penguasaan kitab-kitab Qiraat dalam bahasa Arab bagi jawapan sederhana paling tinggi peratusan yang dijawab oleh pelajar.

Jadual 3: Deskriptif Responden Tentang Penguasaan Matan Syatibiyah

Penguasaan Matan Syatibiyah	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	4	13%
Sederhana	19	63%
Baik	5	17%
Sangat Baik	2	7%
Jumlah	30	100%

Jadual 3 menunjukkan tidak seorang (0%) pelajar menjawab jawapan sangat lemah. Bagi jawapan lemah pula, seramai 4 (13%) pelajar, manakala sederhana seramai 19 (63%) pelajar. Bagi jawapan baik pula, seramai 5 (17%) pelajar menjawab jawapan tersebut. Akhir sekali, jawapan sangat baik iaitu seramai 2 (7%) pelajar telah menjawabnya. Tahap penguasaan Matan Syatibiyah menunjukkan peratusan bagi jawapan sederhana mencatat peratusan tertinggi yang dijawab oleh pelajar.

Jadual 4: Deskriptif Responden Tentang Penguasaan Usul Qiraat ‘Asim Riwayat Hafs

Penguasaan Usul Qiraat ‘Asim Riwayat Hafs	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	2	7%
Sederhana	10	30%
Baik	13	43%
Sangat Baik	5	17%
Jumlah	30	100%

Jadual 4 menunjukkan tidak seorang (0%) pelajar menjawab jawapan sangat lemah. Manakala jawapan lemah pula, seramai 2 (7%) pelajar dan jawapan sederhana seramai 10 (30%) pelajar. Bagi jawapan baik pula, pelajar telah menjawab seramai 13 (43%). Akhir sekali jawapan sangat baik iaitu seramai 5 (17%) pelajar telah menjawab. Tahap penguasaan Usul Qiraat ‘Asim Riwayat Hafs bagi peratusan yang tertinggi dijawab oleh pelajar adalah bagi jawapan baik.

Jadual 5: Deskriptif Responden Tentang Penguasaan Usul Qiraat ‘Asim Riwayat Syu’bah

Penguasaan Usul Qiraat ‘Asim Riwayat Syu’bah	Kekerapan	Peratus
Sangat Lemah	1	3%
Lemah	2	7%
Sederhana	16	53%
Baik	8	27%

Sangat Baik	3	10%
Jumlah	30	100%

Jadual 5 menunjukkan 1 (3%) pelajar menjawab sangat lemah. Manakala bagi jawapan lemah, seramai 2 (7%) pelajar. Bagi jawapan sederhana, seramai 16 (53%) pelajar. Bagi jawapan baik pula, seramai 8 (27%) pelajar. Akhir sekali jawapan sangat baik seramai 3 (10%) pelajar menjawab. Tahap penguasaan Usul Qiraat 'Asim Riwayat Syu'bah menunjukkan peratusan paling tinggi dijawab oleh pelajar adalah jawapan sederhana.

Jadual 6: Deskriptif Responden Tentang Penguasaan Usul Qiraat Nafi' Riwayat Qalun

Penguasaan Usul Qiraat Nafi' Riwayat Qalun	Kekerapan	Peratus
Sangat Lemah	0	0 %
Lemah	4	13%
Sederhana	15	50%
Baik	9	30%
Sangat Baik	2	6%
Jumlah	30	100%

Jadual 6 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah. Jawapan lemah pula, seramai 4 (13%) pelajar. Manakala jawapan sederhana pula yang merupakan peratusan tertinggi dijawab oleh pelajar seramai 15 (50%). Bagi jawapan baik pula, pelajar telah menjawab seramai 9 (30%). Akhir sekali, jawapan sangat baik seramai 2 (6%) pelajar telah menjawab. Tahap penguasaan Usul Qiraat Nafi' Riwayat Qalun menunjukkan peratusan paling tinggi dijawab oleh pelajar adalah jawapan sederhana.

Jadual 7: Deskriptif Responden Tentang Penguasaan Usul Qiraat Nafi' Riwayat Warsy

Penguasaan Usul Qiraat Nafi' Riwayat Warsy	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	2	7%
Sederhana	17	57%
Baik	9	30%
Sangat Baik	2	6%
Jumlah	30	100%

Jadual 7 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah dan bagi jawapan lemah, seramai 2 (7%). Manakala sederhana pula, seramai 17 (55%). Bagi jawapan baik pula, seramai 9 (30%). Akhir sekali, jawapan sangat baik iaitu 2 (6%) dijawab oleh pelajar. Tahap penguasaan usul Qiraat Nafi' Riwayat Warsy juga menunjukkan peratusan bagi jawapan sederhana paling tinggi yang dijawab oleh pelajar.

Jadual 8: Deskriptif Responden Tentang Penguasaan Usul Qiraat Ibnu Kathir

Penguasaan Usul Qiraat Ibnu Kathir	Kekerapan	Peratus
Sangat Lemah	0	0%

Lemah	5	17%
Sederhana	16	53%
Baik	7	23%
Sangat Baik	2	7%
Jumlah	30	100%

Jadual 8 menunjukkan tiada seorang (0%) pelajar memberi jawapan sangat lemah. Manakala jawapan lemah 5 (17%) pelajar memberi jawapan tersebut. Manakala jawapan sederhana pula, pelajar seramai 16 (53%). Bagi jawapan baik pula, pelajar telah menjawab seramai 7 (23%). Akhir sekali, jawapan sangat baik iaitu seramai 2 (7%) hanya dijawab oleh pelajar. Tahap penguasaan usul Qiraat Ibnu Kathir juga menunjukkan peratusan jawapan sederhana yang tertinggi.

Jadual 9: Deskriptif Responden Tentang Penguasaan Usul Qiraat Abu ‘Amr

Penguasaan Usul Qiraat Abu ‘Amr	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	5	17%
Sederhana	17	57%
Baik	6	20%
Sangat Baik	2	6%
Jumlah	30	100%

Jadual 9 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah. Manakala jawapan lemah, seramai 5 (17%) pelajar. Manakala jawapan sederhana pula, seramai 17 (57%). Bagi jawapan baik pula, seramai 6 (20%). Akhir sekali, jawapan sangat baik seramai 2 (6%). Begitu juga tahap penguasaan usul Qiraat Abu ‘Amr juga menunjukkan peratusan jawapan sederhana paling tinggi oleh pelajar.

Jadual 10: Deskriptif Responden Tentang Penguasaan Usul Qiraat Ibnu ‘Amir

Tahap Penguasaan Usul Qiraat Ibnu ‘Amir	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	5	17%
Sederhana	17	57%
Baik	6	20%
Sangat Baik	2	6%
Jumlah	30	100%

Jadual 10 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah. Bagi jawapan lemah, seramai 5 orang (17%). Manakala sederhana pula, seramai 17 (57%). Bagi jawapan baik pula, pelajar telah menjawab seramai 6 (20%). Akhir sekali jawapan sangat baik iaitu 2 (6%) pelajar. Tahap penguasaan usul Qiraat Ibnu ‘Amir juga menunjukkan peratusan sederhana paling tinggi yang dijawab oleh pelajar.

Jadual 11: Deskriptif Responden Tentang Penguasaan Usul Qiraat Hamzah

Tahap Penguasaan Usul Qiraat Hamzah	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	4	14%
Sederhana	16	53%
Baik	7	23%
Sangat Baik	3	10%
Jumlah	30	100%

Jadual 11 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah, manakala pelajar yang memberi jawapan lemah seramai 4 (14%) pelajar. Bagi jawapan sederhana, pelajar menjawab seramai 16 (53%). Manakala jawapan baik, pelajar seramai 7 (23%) orang. Akhir sekali jawapan sangat baik seramai 3 (10%) pelajar. Bagi tahap penguasaan usul Qiraat Hamzah kebanyakan pelajar menjawab jawapan sederhana paling ramai.

Jadual 12: Deskriptif Responden Tentang Penguasaan Usul Qiraat al-Kisai

Penguasaan Usul Qiraat al-Kisai	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	5	17%
Sederhana	17	56%
Baik	5	17%
Sangat Baik	3	10%
Jumlah	30	100%

Jadual 12 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah. Bagi jawapan lemah, seramai 5 (17%) pelajar. Manakala jawapan sederhana, seramai 17 (56%) pelajar. Bagi jawapan baik pula, pelajar telah menjawab seramai 5 (17%) pelajar. Akhir sekali jawapan sangat baik seramai 3 (7%) pelajar. Tahap penguasaan usul Qiraat al-Kisai menunjukkan peratusan tertinggi bagi jawapan sederhana.

Jadual 13: Deskriptif Responden Tentang Penguasaan Bacaan Surah al-Baqarah Dengan 7 Qiraat Secara Melihat Mushaf

Penguasaan Surah al-Baqarah Dengan 7 Qiraat Secara Melihat Mushaf	Kekerapan	Peratus
Sangat Lemah	0	0%
Lemah	6	20%
Sederhana	12	40%
Baik	12	40%
Sangat Baik	0	0%
Jumlah	30	100%

Jadual 13 menunjukkan tiada seorang (0%) pelajar menjawab jawapan sangat lemah. Bagi jawapan lemah 6 (20%) pelajar. Manakala jawapan sederhana, seramai 12 (40%) pelajar. Bagi jawapan baik pula, seramai 12 (40%) pelajar. Akhir sekali, jawapan sangat baik tiada seorang (0%) pelajar.

Tahap penguasaan surah al-Baqarah dengan tujuh Qiraat secara melihat mushaf menunjukkan peratusan sederhana paling tinggi.

Jadual 14: Deskriptif Responden Tentang Penguasaan Bacaan Surah al-Baqarah Dengan 7 Qiraat Tanpa Melihat Mushaf

Penguasaan Bacaan al-Baqarah Dengan 7 Qiraat Tanpa Melihat Mushaf	Kekerapan	Peratus
Sangat Lemah	4	13%
Lemah	6	20%
Sederhana	12	40%
Baik	6	20%
Sangat Baik	2	7%
Jumlah	30	100%

Jadual 14 menunjukkan seramai 4 (20%) pelajar menjawab sangat lemah. Manakala bagi jawapan lemah, seramai 6 (20%) pelajar. Seramai 12 (40%) pelajar telah menjawab sederhana. Jawapan baik pula 6 (20%) pelajar dan akhir sekali jawapan sangat baik hanya dijawab seramai 2 (7%) pelajar. Bagi tahap penguasaan bacaan al-Baqarah dengan tujuh Qiraat tanpa melihat mushaf menunjukkan jawapan sederhana paling tinggi peratusannya bagi pelajar.

Jadual 15: Deskriptif Responden Tentang Penguasaan Menyebut Kalimah Mempunyai Khilaf

Penguasaan Menyebut Kalimah Mempunyai Khilaf	Kekerapan	Peratus
Sangat Lemah	2	7%
Lemah	5	17%
Sederhana	14	47%
Baik	7	23%
Sangat Baik	2	6%
Jumlah	30	100%

Jadual 15 menunjukkan seramai 2 (7%) menjawab jawapan sangat lemah. Bagi jawapan lemah 5 (17%) pelajar. Manakala jawapan sederhana, seramai 14 (47%) pelajar. Bagi jawapan baik pula, pelajar telah menjawab seramai 7 (23%) pelajar. Akhir sekali jawapan sangat baik seramai 2 (6%) pelajar. Tahap penguasaan menyebut kalimah mempunyai khilaf menunjukkan peratusan tertinggi adalah bagi jawapan sederhana oleh pelajar.

6. Kesimpulan

Penguasaan ilmu Qiraat sangat penting bagi pelajar-pelajar khususnya mereka yang mengikuti bidang pengajian al-Quran. Kesilapan bacaan yang dilakukan boleh menjejaskan hakikat makna al-Quran. Kesalahan berkenaan dengan ilmu Qiraat boleh terjadi apabila pelajar-pelajar tidak menguasai sepenuhnya pengajian Qiraat melalui teori dan amali yang mereka dipelajari secara formal. Tambahan lagi, terdapat juga pelajar yang hanya sekadar mendengar dan memahami apa-apa yang diajarkan oleh tenaga pengajar sahaja secara teori sedangkan proses pengajian ilmu Qiraat mestilah bergerak secara seiring antara teori dan amali. Oleh itu, penguasaan ilmu Qiraat bagi pelajar-pelajar MTQ MAIK yang mengikuti program Qiraat sangatlah mustahak kerana

mereka adalah generasi yang akan menyebarkan ilmu Qiraat kepada umum. Tambahan lagi, penguasaan ilmu Qiraat yang kurang mantap akan mengurangkan kesucian al-Quran.

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Hubungan Pendedahan Teknologi dengan Sikap Pelajar (*Relationship Between Technology Disclosure and Student Attitude*)

Jegatheswary Perumal¹

¹ Falkulti Pendidikan, Universiti Kebangsaan Malaysia, Bangi, Malaysia

Abstrak: *Teknologi merupakan satu medium pembelajaran yang penting pada era modenisasi ini tetapi beberapa kajian lepas melaporkan adanya isu yang timbul di kalangan sikap pelajar dalam pembelajaran berasaskan teknologi. Hal ini mencetuskan idea dan keinginan untuk pengkaji bagi mengkaji amalan guru dalam pendedahan teknologi dengan sikap pelajar. Tujuan kajian ini adalah untuk mengenalpasti hubungan antara pendedahan teknologi dengan sikap pelajar dan sikap pelajar terhadap pendedahan teknologi. Objektif kajian ini adalah untuk mengenal pasti tahap pendedahan teknologi kepada pelajar, mengenal pasti perbezaan sikap pelajar terhadap teknologi mengikut jantina dan mengenal pasti hubungan pendedahan teknologi dengan sikap pelajar terhadap teknologi. Seramai 370 orang pelajar tingkatan 1 di tiga buah sekolah menengah harian di zon bangsar/pudu di wilayah persekutuan Kuala Lumpur telah dipilih sebagai responden. Soal selidik telah digunakan sebagai instrumen kajian. Data dianalisis dengan menggunakan perisian komputer SPSS versi 22. Dalam kajian ini, analisis statistik deskriptif telah dilaksanakan untuk mendapatkan min, peratus dan kekerapan, diikuti analisis ujian-t dan korelasi Pearson. Dapatan kajian ini menunjukkan tahap pendedahan teknologi adalah pada tahap sederhana di kalangan pelajar. Seterusnya, keputusan ujian-t menunjukkan perbezaan yang signifikan sikap pelajar terhadap pendedahan teknologi mengikut jantina. Dapatan kajian ini juga membuktikan bahawa wujudnya hubungan positif dan sangat lemah antara pendedahan teknologi dengan sikap pelajar. Kesimpulannya pelajar masih mempunyai minat dan semangat apabila teknologi digunakan dalam PdPC di dalam kelas tetapi guru perlu mempelbagaikan aktiviti dan strategik pengajaran yang berasaskan teknologi. Kajian ini boleh dilanjutkan dengan mencari sikap pelajar secara spesifik terhadap pembelajaran berasaskan teknologi.*

Kata Kunci: Teknologi, Pendedahan Teknologi, Pembelajaran Berasaskan Teknologi, Sikap Pelajar

Abstract: *Technology is an important learning medium in this era of modernization but several previous studies reported that there are issues that arise among students' attitudes in technology-based learning. This triggers ideas and desires for researchers to study the relationship between technology exposure and students' attitudes. The purpose of this study is to identify the relationship between technology exposure and students' attitudes and students' attitudes towards technology exposure. The objective is to identify the level of technology exposure to students, identify differences in students' attitudes towards technology by gender and identify the relationship between technology exposure and students' attitudes towards technology. A total of 370 form 1 students in three day secondary schools in bangsar/pudu zone in the federal territory of Kuala Lumpur were selected as respondents. Questionnaires were used as research instruments. Data were analysed using SPSS Computer software version 22. In this study, descriptive statistical analysis was performed to obtain mean, percentage and frequency, followed by t-test analysis and*

Pearson correlation. The findings of this study shows that the level of technology exposure is at a moderate level among students there were also significant differences in students' attitudes towards technology exposure by gender and there were also significant differences in students' attitudes towards technology exposure by gender. The findings of this study also prove the existence of a positive and very weak relationship between technological exposure and student attitudes. In conclusion, students still have interest and enthusiasm when technology is used in the classroom but teachers need to diversify technology-based teaching activities and strategies. This study can be extended by looking at students' specific attitudes towards technology-based learning.

Keywords: Technology, Technology Disclosure, Technology-Based Learning, Students Attitude

1. Pengenalan

Transformasi dalam dunia Teknologi Maklumat dan Komunikasi (TMK) pada hari ini telah banyak memberikan impak positif dalam pelbagai bidang seperti perindustrian, pelancongan, komunikasi dan juga pendidikan (Fatimah, 2017). Dalam bidang pendidikan, peranan teknologi maklumat menjadi sangat penting sebagai sumber penyaluran ilmu yang dapat disampaikan dengan efektif melalui proses PdP antara guru dengan pelajar (Mohd Izham, Mohd Hamzah, Noraini Attan, 2007). Teknologi maklumat memberikan banyak manfaat dan maklumat boleh diakses dengan pantas dan mudah. Oleh itu, pelbagai kaedah telah digunapakai untuk pengintegrasian teknologi dalam proses PdPc oleh guru di dalam kelas.

Teknologi merupakan satu medium pengajaran yang memainkan peranan penting pada era moden ini. Walaupun pelbagai kebaikan dalam PdPc berasaskan teknologi diperolehi tetapi banyak isu-isu yang timbul di kalangan murid yang mempengaruhi sikap pelajar. Antara isu yang berjaya dikenalpasti oleh pengkaji ialah murid dengan kemahiran digital yang rendah tidak dapat melibatkan diri dalam PdPc berasaskan teknologi (Nina Bergdahl, Jalal Nouri, Uno Fors, 2020). Ini kerana beliau mendapati murid tiada pendedahan awal terhadap penggunaan teknologi dan ia membuatkan mereka rasa kurang keyakinan untuk menggunakan teknologi lalu tidak aktif dalam kelas. Isu kedua yang dikenalpasti dalam pembelajaran berasaskan teknologi ialah pelajar kurang berbincang dengan guru semasa Pdpc berasaskan teknologi dilakukan. Perkara ini membuktikan kurang berlakunya komunikasi antara pelajar dan guru di dalam kelas (Alhumaid, 2019). Ini kerana mereka lebih meluangkan masa dengan alatan teknologi dan jarang berjumpa dengan guru. Isu yang seterusnya ialah penglibatan pelajar secara aktif sangat kurang dan menyebabkan pelajar berisolasi (Alhumaid, 2019). Menurut beliau, perkara ini berlaku kerana pelajar suka duduk berasingan dan bersendirian dalam menyiapkan tugas. Seterusnya, dalam kajian Jan Ardies pula memberikan bukti ada hubungan kolerasi di antara perwatakan pelajar dan sikap pelajar terhadap teknologi (Jan Ardies, Sven De Maeyer, David Gijbels, Hanno van Keulen, 2014). Selain daripada itu, dalam kajian ini juga mendapati minat pelajar turun dalam menggunakan teknologi dari tahap pertama ke kedua di sekolah. Kekurangan minat ini telah berlaku dalam kalangan pelajar perempuan.

Sikap pelajar ke atas penggunaan teknologi mengandungi pelbagai sub aspek dan kajian yang berfokuskan dimana cara teknologi diintegrasikan mempengaruhi kelakuan pelajar (Jonathan Osborne, Shirley Simon, Sue Collins, 2003). Ini dapat dinyatakan bahawa cara teknologi digunakan dalam Pdpc memainkan peranan sangat tinggi dalam membentuk sikap murid. Murid

yang berkualiti adalah murid yang boleh mendengar dan memberikan perhatian penuh serta aktif di dalam dan di luar kelas selain bersedia untuk menerima arahan guru (Mohamad Baharom dan Hasyim Iliyas, 2010). Jikalau minat murid kurang, mereka akan hilang tumpuan dalam kelas dan menjejaskan prestasi mereka pada akhirnya. Disebabkan sikap murid sangat mempengaruhi penglibatan murid di dalam kelas, sikap negatif murid perlulah diatasi dengan kaedah pengajaran dan pembelajaran yang efektif. Oleh itu, isu yang dikenalpasti perlulah ditangani dengan segera untuk kebaikan guru dan murid.

Tujuan Kajian

Tujuan kajian ini adalah untuk mengenalpasti hubungan antara pendedahan teknologi dengan sikap pelajar dan sikap pelajar terhadap pendedahan teknologi.

Objektif Kajian

1. Menenalpasti tahap pendedahan teknologi kepada pelajar.
2. Menenalpasti perbezaan sikap pelajar terhadap teknologi mengikut jantina.
3. Menenalpasti hubungan pendedahan teknologi dengan sikap pelajar terhadap teknologi.

2.Sorotan Literatur

Burnett (2010) mengatakan dalam kajian beliau pendedahan awal kepada komputer multimedia berlaku kerana ia boleh merangsang dan mendorong murid untuk belajar dengan lebih baik, cepat dan berkesan. Jika murid mengetahui asas komputer, mereka akan lebih faham apa yang dipelajari kerana otaknya boleh memproses maklumat dengan lebih cepat. Selain itu, kajian (Zakiah Mohamad Ashari, Alifa Aliya Ngadiman, Nurul Farhana Zainudin, Nurul Farhana Jumaat, 2018) adalah untuk mengkaji hubungan antara pengetahuan, sikap terhadap penggunaan gadget teknologi dan pembangunan sosioemosi di Tiram, Johor. Kajian ini merupakan kuantitatif dan soal selidik diedarkan kepada 260 murid daripada 3 buah sekolah di Zon Tiram untuk mengutip data. Data dianalisis dengan menggunakan deskriptif dan dan Ujian Pearson untuk analisis statistik untuk mengenalpasti hubungan antara dua pembolehubah. Dapatan menunjukkan wujudnya hubungan signifikan antara pengetahuan dan sikap terhadap penggunaan gadget teknologi dan pembangunan sosioemosi. Kajian ini juga menunjukkan pengetahuan pelajar dan sikap terhadap penggunaan gadget teknologi mempunyai hubungan positif dengan sosioemosi pelajar. Perbincangan kajian ini mencadangkan cara menggunakan gadget dengan efektif kepada sekolah, ibu bapa dan murid. Sosioemosi seseorang murid bukan sahaja dipengaruhi oleh pengetahuan murid tersebut malah sangat dipengaruhi oleh sikap murid untuk menggunakan gadget teknologi.

Kajian oleh (Nina Bergdahl, Jalal Nouri, Uno Fors, 2020) adalah untuk mengenalpasti tahap penglibatan pelajar dalam kelas berbentuk digital. Ujian statistik telah dilakukan ke atas 410 orang murid sebagai responden untuk mengkaji hubungan antara penglibatan pelajar dengan pendedahan teknologi dan juga telah mengenalpasti bagaimana kemahiran digital telah mempengaruhi penglibatan murid dalam kelas berbentuk teknologi ini. PdPc Hasil kajian mendapati wujudnya hubungan kolerasi yang signify antara kemahiran digital pelajar dan penglibatan mereka dalam aktiviti kelas. Didapati juga murid yang mempunyai kemahiran digital yang tinggi aktif melibatkan diri dalam aktiviti kelas dan murid yang kurang melibatkan diri dalam aktiviti kelas adalah disebabkan oleh kemahiran digital yang rendah. Markah akhir tahun murid selepas didedahkan dengan teknologi juga dianalisis untuk melihat perubahan pencapaian murid tersebut.

Seterusnya, kajian yang dilakukan oleh (Jan Ardies, Sven De Maeyer, David Gijbels, Hanno van Keulen, 2014), berfokuskan kepada enam aspek untuk menilai sikap iaitu minat, aspirasi, kebosanan, kesan implimentasi, masalah yang dihadapi dan jantina. Pelbagai jenis variat telah dibina dalam kajian ini dan persoalan utama kajian ini ialah apakah perwatakan murid untuk membina sikap pelajar terhadap teknologi. Instrument jenis soal selidik telah digunakan untuk mengenalpasti sikap pelajar terhadap teknologi. Populasi kajian ini adalah seramai 2973 murid grade 1 dan grade 2 di sekolah menengah iaitu terdiri daripada murid berusia 12 hingga 14 tahun. Dapatan menunjukkan minat murid untuk menggunakan teknologi di dalam kelas menurun dari grade 1 hingga grade 2. Didapati juga penurunan minat untuk menggunakan teknologi adalah sangat tinggi untuk pelajar perempuan.

Namun demikian, kajian yang dilakukan oleh (Tariq Hussain, Mumtaz Akhter, 2016) menunjukkan pelajar mempunyai sikap positif terhadap penggunaan teknologi. Kajian ini adalah untuk mengkaji sikap pelajar terhadap teknologi. Populasi kajian ialah 3338 orang pelajar jurusan Elektrik dan mekanikal dari 11 kolej kerajaan dan 33 institut politeknik swasta di Pakistan. Soal selidik PATT USA digunakan untuk mengukur sikap pelajar terhadap teknologi. Dapatan kajian ini menunjukkan wujudnya hubungan kolerasi signifi dengan pemboleh ubah kajian. Pelajar menunjukkan sikap positif dalam menggunakan teknologi dalam kelas.

3. Metodologi

Rekabentuk Kajian

Kajian ini merupakan kajian kuantitatif yang berbentuk penyelidikan kolerasi iaitu penyelidikan yang cuba mencari hubung kait atau perhubungan antara pemboleh ubah dengan menggunakan kaedah statistik kolerasi tanpa mencari sebab dan penyebabnya. Analisis deskriptif kekerapan, peratusan, min dan sisihan piawai digunakan bagi melaporkan dapatan kajian. Seterusnya, tempat kajian lapangan dipilih berdasarkan objektif kajian kerana sebahagian daripada data yang digunakan dalam kajian ini merupakan data yang diperolehi daripada kajian lapangan. Data ini adalah data primer dan data dipungut melalui soal selidik daripada kajian lapangan.

Populasi dan Sampel Kajian

Populasi kajian ini merangkumi semua pelajar tingkatan 1 iaitu seramai 8601 orang pelajar dari 46 buah Sekolah Menengah Harian di Zon Bangsar Pudu dalam wilayah persekutuan Kuala Lumpur. Disebabkan oleh populasi sangat besar, pengkaji telah melakukan persampelan. Persampelan dibuat secara rawak berlapis dengan memilih 3 buah Sekolah Menengah Harian dari populasi kajian ini. Selepas itu sampel sebanyak 370 orang murid telah dipilih berdasarkan jadual Krichie Morgan untuk mewakili responden. Lebih besar peratusan sampel daripada populasi adalah lebih baik kerana penyelidik mempunyai lebih kemungkinan untuk memilih sampel yang mempunyai ciri-ciri populasi (Mohamad Najib Abdul Ghafar, 1999). Kemudian, bilangan responden lelaki dan perempuan di setiap kelas ditentukan secara rawak mudah.

Instrumen

Soal Selidik

Pengkaji telah menggunakan borang soal selidik untuk mendapatkan data responden (maklumat demografi), amalan dan cara guru dalam penggunaan teknologi dalam kelas dan sikap pelajar terhadap pendedahan teknologi. Kandungan soal selidik dalam ini amat ringkas dan tidak

membebankan pelajar untuk menjawab. Soal selidik yang digunakan adalah yang telah diadaptasi dari pengkaji lepas (Matthew Andrew, Jennifer Taylorson, Donald J Langille, Aimee Grange, Norman Williams, 2018) dan diterjemahkan bahasa dari Bahasa Inggeris ke Bahasa Melayu dengan menggunakan kaedah “back translation”. Juga terdapat beberapa item diubah suai oleh pengkaji dengan bantuan penyelia. Borang soal selidik ini mempunyai 2 bahagian iaitu bahagian A tentang latar belakang pelajar dan bahagian B dibahagikan kepada bahagian B (I) kemudahan teknologi di rumah dan B(II) untuk mengetahui tentang pendedahan teknologi serta sikap pelajar. Keseluruhannya borang soal selidik ini mengandungi 41 item yang perlu dijawab oleh pelajar.

Bahagian A (Demografi)

Bahagian ini adalah untuk mengetahui maklumat demografi atau butiran peribadi responden mengenai jantina, agama, bangsa, tingkatan, ada membuat latihan, ulangkaji atau menghadiri kelas tambahan, kekerapan membaca dan hasrat utama responden ke sekolah. Bahagian ini mempunyai lapan soalan untuk dijawab oleh responden.

Bahagian B

Bahagian B(I) ini mempunyai tiga soalan untuk mendapatkan maklumat tentang alatan teknologi yang pelajar sedia ada di rumah. Ini adalah untuk mengetahui tentang pendedahan awal ke atas gadget yang terkini. Bahagian B (II) mempunyai 30 soalan dalam bentuk skala Likert. Responden diminta menyatakan tahap persetujuan berdasarkan lima peringkat yang telah dinyatakan dalam Skala Likert. Soalan di bahagian ini adalah untuk tujuan mengukur persepsi responden terhadap amalan guru, cara guru menggunakan teknologi dan sikap pelajar terhadap penggunaan teknologi di dalam kelas.

Kajian Rintis

Pengkaji melakukan kajian rintis terlebih dahulu terhadap soalan kajian untuk menguji kebolehpercayaan instrument (Mohamad Najib Abdul Ghafar, 1999) sebelum melakukan kajian yang sebenar. Kajian rintis ini dijalankan di salah satu tempat yang sama dimana kajian sebenar dijalankan. Kajian rintis dilakukan dengan menggunakan sampel yang mempunyai ciri-ciri yang sama dengan populasi yang hendak diuji. Ciri-ciri yang sama termasuklah peringkat umur, latar belakang pendidikan dan tahap penguasaan Bahasa Melayu. Kajian rintis juga dijalankan oleh pengkaji sendiri untuk mengetahui tahap kefahaman pelajar terhadap arahan dan susunan ayat bagi setiap item. Subjek untuk kajian rintis ini terdiri daripada 30 orang pelajar tingkatan 1 dari kelas baik, sederhana dan lemah. Pengkaji mendapati hasil kajian rintis ini seperti berikut:-

- 1) Murid boleh memahami kandungan soal selidik. Responden dapat membaca dengan jelas setiap soalan dan tidak berlaku kekeliruan.
- 2) Ada dua soalan sahaja di bahagian A (demografi) diubahsuai kerana pelajar kelas belakang kurang memahaminya.
- 3) Masa yang diberikan satu minggu untuk menjawab soalan adalah sangat mencukupi untuk pelajar menjawab soal selidik kajian ini.

Kesahan dan kebolehpercayaan

Borang soal selidik

Kesahan dan Kebolehpercayaan dalam kajian ini dilakukan dengan Ujian “Cronbach Alpha” yang diproses menggunakan perisian komputer SPSS versi 22. Penggunaan soal selidik berasaskan

Skala Likert dipilih kerana Skala Likert mempunyai kebolehpercayaan dan kesahan yang tinggi. Keseluruhan 30 item atau indikator yang digunakan mempunyai nilai kebolehpercayaan yang tinggi iaitu nilai Cronbach Alpha 0.905 bagi 18 item pendedahan teknologi dan Cronbach Alpha 0.534 bagi 12 item sikap pelajar. Hasil ini menjelaskan bahawa item yang membentuk skala mempunyai kebolehpercayaan ketekalan dalaman yang dapat diterima. Walaupun item SP1 dan SP7 direkodkan sebagai pernyataan negatif tetapi Item pendedahan teknologi dan sikap murid dapat digunakan untuk dinilai dalam kajian ini.

Skala Pengukuran/Penskoran

Skala Likert digunakan untuk menyatakan tahap persetujuan berdasarkan lima peringkat yang telah dinyatakan dalam Skala Likert. Tanda aras skor min yang digunakan adalah berpandukan kepada skala likert 5 mata seperti Sangat tidak setuju, Tidak setuju, Kurang setuju, Setuju, Sangat setuju. Skor min yang diperolehi daripada instrumen soal selidik dibahagikan kepada empat tahap iaitu lemah, rendah, sederhana dan tinggi. Data yang diperolehi dianalisis menggunakan perisian SPSS versi 22.

Prosedur Pengumpulan Data

Pertama sekali, pengkaji telah mendapatkan surat sokongan dari Fakulti Pendidikan Universiti Kebangsaan Malaysia untuk memohon kebenaran dari pihak universiti bagi melaksanakan kajian ini. Seterusnya pengkaji telah memohon di KPM untuk mendapatkan persetujuan menjalankan kajian di sekolah-sekolah terpilih. Seterusnya pengkaji berjumpa dengan pengetua sekolah-sekolah yang dijadikan sebagai lokasi kajian untuk mendapatkan persetujuan bagi menjalankan kajian ini. Oleh kerana situasi pandemik melanda dunia, pengkaji mengambil langkah untuk mengutip data menerusi talian “Google Form” kerana semua sekolah diarahkan tutup. Masa diberikan selama seminggu untuk menjawab soalan selidik ini menerusi pautan yang dikongsikan. Kemudian data diproses dan dianalisis.

Penganalisan Data

Pengkaji telah membuat penyemakan ke atas setiap soalan bagi memastikan semua soalan di jawab oleh responden mengikut arahan yang betul selepas tamat tempoh menjawab. Dalam kajian ini data dianalisis melalui Statistik Deskriptif Kuantitatif untuk menghuraikan ciri-ciri variabel dan Statistik Inferensi Ujian-t untuk sampel-sampel bebas dan Ujian Kolerasi Pearson untuk menyatakan hubungan antara variabel-variabel (Piaw, 2014). Data yang diperolehi dianalisis menggunakan perisian SPSS versi 22. Dalam kajian ini, data dianalisis melalui statistik deskriptif untuk objektif pertama dengan tujuan untuk mengenal pasti tahap pendedahan teknologi kepada pelajar. Analisis statistik deskriptif melibatkan kekerapan, peratusan, min dan sisihan piawai digunakan bagi melaporkan dapatan kajian. Seterusnya statistik inferensi pula digunakan untuk menganalisis data melalui ujian -t untuk mengukur objektif kedua bagi mengenal pasti perbezaan sikap pelajar terhadap teknologi mengikut jantina. Paras keyakinan 95 peratus ($p > 0.05$) digunakan untuk menentukan aras signifikan statistik bagi mengurangkan ralat persampelan. Kemudian, ujian Kolerasi Pearson adalah untuk mengukur objektif kajian yang ketiga iaitu untuk mengenal pasti hubungan pendedahan teknologi dengan sikap pelajar terhadap teknologi. Kesemua dapatan data dipersembahkan dalam bentuk jadual.

4. Dapatan Kajian

Dapatan Obj 1: Mengenalpasti tahap pendedahan teknologi kepada pelajar.

Jadual 1: Analisis Deskriptif Tahap Pendedahan Teknologi

Item	Soalan	Min	Sisihan Piawai	Kedudukan
PT7	Guru menggunakan video untuk mengajar.	4.10	0.888	1
PT8	Guru menggunakan 'power point slides' untuk memberikan nota di dalam kelas.	4.07	0.934	2
PT1	Guru menggunakan komputer / komputer riba di dalam kelas untuk mengajar.	4.02	0.968	3
PT18	Guru membawa murid ke makmal komputer untuk menjalankan pengajaran dan pembelajaran.	3.97	0.984	4
PT17	Guru menyuruh murid mencari maklumat tambahan melalui internet di rumah.	3.95	0.893	5
PT16	Guru mendemontrasi cara menggunakan aplikasi baharu seperti padlet dan kahoot sebelum suruh murid menggunakannya di dalam kelas.	3.92	0.972	6
PT3	Guru menggunakan LCD /Projektor di dalam kelas untuk mengajar.	3.88	1.010	7
PT13	Guru menggunakan komputer / computer riba dalam kelas untuk buat latihan.	3.79	1.029	8
PT12	Guru menggunakan aplikasi seperti Kahoot dalam latihan berasaskan permainan seperti kuiz.	3.64	1.066	9
PT9	Guru menggunakan rangkaian website untuk mengajar.	3.42	1.136	10
PT5	Guru menggunakan animasi untuk mengajar.	3.28	1.162	11
PT11	Guru menggunakan aplikasi seperti padlet semasa pengajaran dan pembelajaran.	3.16	1.153	12
PT15	Guru menggunakan email untuk memberi latihan tambahan.	2.98	1.016	13
PT4	Guru menggunakan corak grafik untuk mengajar.	2.97	0.996	14
PT10	Guru menggunakan rangkaian website untuk memberi latihan.	2.67	1.135	15
PT6	Guru menggunakan 3D untuk mengajar.	2.59	1.130	16
PT2	Guru menggunakan chromebook/ tablet di dalam kelas untuk mengajar.	2.49	1.212	17
PT14	Guru menggunakan chromebook / tablet dalam kelas untuk buat latihan.	2.23	1.291	18
	Jumlah	3.396	1.054	

Jadual 1 menunjukkan analisis deskriptif pendedahan teknologi. Di dalam jadual 1 susunan item dibuat ikut min tertinggi hingga min terendah. Keputusan analisis ini menunjukkan item PT7 “Guru menggunakan video untuk mengajar” mempunyai min tertinggi iaitu (min=4.10, sp=0.888) diikuti dengan item PT8 “Guru menggunakan ‘power point slides’ untuk memberikan nota di dalam kelas” dengan (min=4.07, sp=0.934) dan item PT1 “Guru menggunakan komputer/komputer riba di dalam kelas untuk mengajar” (min=4.02, sp=0.968). Dari dapatan boleh disimpulkan bahawa guru menggunakan alat teknologi seperti komputer atau komputer riba sebagai alat dalam kaedah pengajaran mereka. Semasa PdPc kebanyakan guru menggunakan video

dan ‘power point slides’ sebagai pendekatan dalam pengajaran. Selanjutnya item PT18 “Guru membawa murid ke makmal komputer untuk menjalankan pengajaran dan pembelajaran” memiliki (min=3.97, sp=0.984) diikuti dengan item PT17 “Guru menyuruh murid mencari maklumat tambahan melalui internet di rumah” (min=3.95, sp=0.893) dan item PT16 “Guru mendemonstrasi cara menggunakan aplikasi baharu seperti padlet dan kahoot sebelum suruh murid menggunakannya di dalam kelas” mempunyai (min=3.92, sp=0.972).

Kemudian item PT3 “Guru menggunakan LCD /Projektor di dalam kelas untuk mengajar” dengan mempunyai (min=3.88, sp=1.010) diikuti item PT13 “Guru menggunakan komputer/computer riba dalam kelas untuk buat latihan” (min=3.79, sp=1.029) dan item PT12 “Guru menggunakan aplikasi seperti Kahoot dalam latihan berasaskan permainan seperti kuiz” dengan (min=3.64, sp=1.066). Item PT9 “Guru menggunakan rangkaian website untuk mengajar” mencapai (min=3.42, sp= 1.136). Seterusnya adalah item PT5 “Guru menggunakan animasi untuk mengajar” memiliki (min=3.28, sp=1.162). Item PT11 “Guru menggunakan aplikasi seperti padlet semasa pengajaran dan pembelajaran (min=3.16, sp=1.153) diikuti oleh item PT15 “Guru menggunakan email untuk memberi latihan tambahan” ialah (min=2.98, sp=1.016). Dalam penemuan berikutnya yang dinyatakan, nilai min berada pada nilai yang rendah untuk item PT4 “Guru menggunakan corak grafik untuk mengajar” (min=2.97, sp=0.996) diikuti oleh item PT10 “Guru menggunakan rangkaian website untuk memberi latihan” yang mempunyai (min=2.67, sp=1.135) dan item PT6 “Guru menggunakan 3D untuk mengajar” (min=2.59, sp=1.130). Selain itu, item PT2 “Guru menggunakan chromebook/ tablet di dalam kelas untuk mengajar” mencapai (min=2.49, sp=1.212) dan akhir sekali item PT14 “Guru menggunakan chromebook/tablet dalam kelas untuk buat latihan” (min=2.23, sp=1.291). Secara keseluruhan analisis ini menunjukkan, purata min bagi pendedahan teknologi ialah 3.40 dan purata sisihan piawai 1.054. Ini bermakna pendedahan teknologi berada pada tahap sederhana.

Dapatan Obj 2: Mengenal pasti perbezaan sikap pelajar terhadap pendedahan teknologi mengikut jantina.

Jadual 2: Analisis Statistik Kumpulan untuk Min Sikap Pelajar

Jantina	N	Min	Sisihan Piawai	Ralat Piawai Min
Min Sikap Pelajar				
Lelaki	185	3.2036	.40879	.03005
Perempuan	185	3.3189	.36975	.02718

Jadual 3: Analisis Ujian-t untuk Sampel-Sampel Bebas bagi Sikap Pelajar

Ujian-t untuk kesamaan Min							
	Nilai t-kiraan	Darjah kebebasan	Signifikan 2-Tailed	Perbezaan Min	Perbezaan Ralat Piawai	95% Selang Keyakinan Perbezaan	
						Paling Rendah	Paling Tinggi
Sikap Murid	-2.846	368	.005	-.11532	.04053	-.19501	-.03563

Jadual 3 menunjukkan keputusan statistik ujian-t untuk sikap pelajar terhadap pendedahan teknologi mengikut jantina. Analisis perbezaan sikap pelajar terhadap teknologi mengikut jantina

menunjukkan nilai $t = -2.846$ dan tahap signifikan $p = 0.005$. Tahap signifikan ini adalah lebih kecil daripada 0.05 ($p < 0.05$). Oleh itu hipotesis nul ditolak. Kesimpulannya terdapat perbezaan yang signifikan sikap pelajar terhadap pendedahan teknologi mengikut jantina. Terdapat perbezaan antara nilai min lelaki dan perempuan seperti dalam jadual 3 diatas iaitu nilai min perempuan, 3.3189 lebih besar daripada lelaki, 3.2036 . Kesimpulannya sikap pelajar perempuan lebih positif terhadap pendedahan teknologi daripada sikap pelajar lelaki.

Dapatan Obj 3: Mengenal pasti hubungan pendedahan teknologi dengan sikap pelajar terhadap teknologi.

Jadual 4: Keputusan Analisis Ujian Kolerasi Pearson

		Pendedahan Teknologi	Sikap Manusia
Pendedahan Teknologi	Kolerasi Pearson	1	.204**
	Signifikan 2-Tailed		.000
		N	370
Sikap Manusia	Kolerasi Pearson	.204**	1
	Signifikan 2-Tailed	.000	
		N	370

**Korelasi signifikan pada 0.01 (2-tailed)

Jadual 4.13 menunjukkan keputusan analisis kolerasi Pearson untuk mengenalpasti hubungan antara pendedahan teknologi dengan sikap pelajar iaitu nilai $r = 0.204$ dan tahap signifikan $p = 0.000$. Tahap signifikan ini lebih kecil dari 0.05 ($p < 0.05$), oleh itu hipotesis nul ditolak. Kesimpulannya terdapat hubungan yang positif dan sangat lemah.

5. Perbincangan

Pendedahan teknologi secara sederhana

Tahap pendedahan teknologi adalah pada tahap sederhana. Ini bermakna pendedahan teknologi memang berlaku tetapi pada tahap yang sederhana. Guru memang menggunakan komputer riba atau chrome book di kelas dan menggunakan animasi di dalam PdPC. Dalam kajian (Christen, 2009) beliau mengatakan dalam kajian beliau pendedahan awal kepada komputer multimedia berlaku kerana ia boleh merangsang dan mendorong murid untuk belajar dengan lebih baik, cepat dan berkesan. Oleh itu amatlah penting murid didedahkan dengan pelbagai jenis alatan atau aplikasi teknologi bagi membantu pembelajaran.

Pelajar perempuan mempunyai sikap positif terhadap pendedahan teknologi.

Pelajar perempuan mempunyai sikap positif terhadap pendedahan teknologi mungkin kerana gaya pembelajaran yang berbeza. Dapatan ini disokong oleh kajian pengkaji mendapati satu perlima murid (Miller, Shannon McClintock, 2011) perempuan telah bercakap tentang cara mereka untuk mempersembahkan sesuatu dan menunjukkan apa yang boleh dilakukan dengan menggunakan teknologi. Murid sangat bersemangat apabila dibenarkan untuk mengembangkan kebolehan dan kekuatan mereka melalui teknologi. Murid disini sering menggunakan komputer riba untuk membuat tayangan slaid, program maya, video You Tube ,membaca isi di blog malah menulis di blog sendiri.

Hubungan pendedahan teknologi dengan sikap pelajar

Dapatan kajian ini menunjukkan mempunyai hubungan positif dan sangat lemah antara pendedahan teknologi dengan sikap pelajar kerana pelajar mungkin minat dan bersemangat apabila teknologi digunakan dalam PdPC di dalam kelas. Dapatan ini disokong dengan kajian yang dilakukan oleh (Tariq Hussain, Mumtaz Akhter, 2016) menunjukkan pelajar jurusan Elektrik dan mekanikal dari 11 kolej kerajaan dan 33 institut politeknik swasta di Pakistan mempunyai hubungan kolerasi signifikan dengan pemboleh ubah kajian. Pelajar menunjukkan sikap positif dalam menggunakan teknologi dalam kelas. Bukan itu sahaja, dapatan kajian ini juga disokong oleh kajian (Muhammad Sabiq Mohd Noor, Megat Aman Zahiri Megat Zakaria, 2018) yang menunjukkan motivasi dan sikap pelajar berada pada tahap tinggi selepas guru menggunakan Website berkenaan dalam PdPc. Secara keseluruhannya, kajian ini menunjukkan pengimplementasian VLE mempunyai banyak kelebihan kepada murid terutamanya dari aspek motivasi, sikap dan pencapaian dalam pembelajaran Bahasa Melayu. Perkara ini membuktikan sikap pelajar berubah menjadi positif dari sudut ketekunan menjawab soalan selepas didedahkan dengan teknologi.

Kesimpulan

Dapatan kajian membuktikan bahawa terdapat hubungan yang positif antara pendedahan teknologi dengan sikap pelajar. Pendedahan teknologi yang meluas dalam PdPc dapat melahirkan sikap positif terhadap murid dalam pembelajaran. Murid perempuan lebih cenderung menggunakan teknologi sebab minat. Pihak sekolah dan guru perlu mempelbagaikan aktiviti pembelajaran yang berasaskan teknologi yang supaya dapat menarik minat murid lelaki. Oleh kerana kajian ini mempunyai hubungan yang positif dan sangat lemah antara pendedahan teknologi dengan sikap pelajar, kajian boleh dilanjutkan untuk mengetahui sikap pelajar secara spesifik terhadap pendedahan teknologi.

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Keperluan Modul Perancangan Harta dalam Kursus Praperkahwinan Islam di Malaysia *(The Importance of Estate Planning Module in Premarital Course for Muslims in Malaysia)*

Nurhayati Abdul Ghani^{1*}, Maffuza Salleh¹, Tuan Nurhafiza Raja Abdul Aziz¹

¹ Jabatan Undang-undang, Fakulti Syariah dan Undang-undang, Kolej Universiti Islam Antarabangsa Selangor, Malaysia

* Pengarang Koresponden: nurhayati.ag@kuis.edu.my

Abstrak: *Perancangan harta merupakan satu topik penting yang perlu difahami oleh pasangan dalam rumah tangga. Tanpa perancangan harta yang baik, sesebuah keluarga akan berada dalam keadaan yang sukar jika keluarga ditimpa musibah seperti perceraian, kemalangan dan kematian. Banyak kes-kes yang berlaku melibatkan perebutan harta berpunca daripada kegagalan merancang harta dengan baik. Di Malaysia, individu yang beragama Islam diwajibkan untuk menjalani kursus praperkahwinan sebelum berkahwin. Kursus ini menggunakan Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI) yang diterbitkan oleh pihak Jabatan Kemajuan Islam Malaysia (JAKIM) dan disemak setiap 5 tahun. Oleh itu, kajian ini dibuat untuk menunjukkan kepentingan modul perancangan harta untuk dimasukkan ke dalam kursus praperkahwinan bagi memberi pendedahan perancangan harta kepada pasangan yang bakal mendirikan rumahtangga. Kajian ini berbentuk kualitatif, menggunakan kaedah analisis dokumen MBKPI dan temubual tidak berstruktur kepada pihak penggubal modul iaitu JAKIM dan pihak pelaksana modul iaitu penceramah kursus praperkahwinan daripada Jabatan Agama Islam Selangor (JAIS). Hasil kajian mendapati MBKPI sedia ada hanya membincangkan tajuk perancangan kewangan sahaja dan tiada pendedahan berkenaan perancangan harta. Data menunjukkan, statistik perceraian semakin meningkat terutama dalam kalangan pasangan muda (umur perkahwinan di bawah 5 tahun) menunjukkan adanya keperluan untuk modul perancangan harta dimasukkan dalam kursus praperkahwinan kepada bakal suami dan isteri.*

Kata Kunci: modul, perancangan harta, kursus praperkahwinan

Abstract: *Estates planning is an important topic that married couples should understand. Without a good property plan, a family will be in a difficult situation if the family faces difficulties such as in case of divorce, accident or death. Many of the cases involved property struggles stemming from failure to plan the estates properly. In Malaysia, Muslim individuals are required to undergo premarital course before marriage. This course applies the Integrated Module of Islamic Premarital Course (MBKPI) published by the Department of Islamic Development Malaysia (JAKIM) and to be reviewed every 5 years. Therefore, this study was conducted to show the importance of estates planning module to be included in the MBKPI to give exposure to estates planning to couples who are going to get married. This qualitative study used the method of document analysis of MBKPI and unstructured interviews to JAKIM (as module designer), and the speakers/fasilitators of premarital course from Selangor Islamic Religious Department (JAIS) as*

the module implementers. The results showed that the existing MBKPI only discussed the topics of financial planning and had no exposure on estates planning. Statistic data shows that the number of divorces is increasing especially among young couples (under 5 years of marriage age) indicating the need for estates planning module to be included in premarital course for prospective husbands and wives.

Keywords: estate planning, module, premarital course

1. Pengenalan

Di Malaysia, setiap individu beragama Islam yang akan mendirikan rumahtangga wajib melengkapkan kursus praperkahwinan. Kursus selama 2 hari dengan 13 jam kursus ini adalah satu usaha kerajaan untuk mempersiapkan pasangan muslim yang bakal mendirikan rumah tangga dengan ilmu-ilmu asas yang perlu diketahui untuk membina sebuah keluarga yang harmoni dan bahagia. Pelaksanaan kursus praperkahwinan ini diharapkan dapat mengurangkan kadar perceraian yang semakin meningkat saban tahun. Kursus praperkahwinan ini menggunakan Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI) yang dibangunkan oleh pihak Jabatan Kemajuan Islam Malaysia (JAKIM) dengan melibatkan pelbagai kementerian dan jabatan yang berkaitan, serta disemak dari semasa ke semasa untuk mempertingkatkan kecekapan dan memantapkan pelaksanaannya. MBKPI ini digunakan sepenuhnya tanpa pindaan dalam kursus praperkahwinan di seluruh negara yang dijalankan oleh pihak jabatan agama Islam negeri-negeri atau pihak-pihak yang dibenarkan. Oleh itu, kajian ini dijalankan untuk menunjukkan kepentingan tajuk perancangan harta untuk dimasukkan ke dalam kandungan modul sedia ada.

2. Ulasan Kajian Lepas

Kepentingan Perancangan Harta

Konsep perancangan harta dalam Islam yang komprehensif telah dibincangkan oleh Othman (2006) iaitu perancangan harta merujuk kepada suatu perancangan yang mampu dilaksanakan dengan cara seseorang semasa hayatnya memperolehi, mengurus dan mengagihkan hartanya kepada waris-waris dan benefisiari mengikut budi bicara serta adil di samping ia dapat mengawal, memantau dan memanfaatkan harta itu untuk penerima, dirinya dan keluarga semasa hayat dan selepas kematian. Perancangan harta juga merujuk kepada satu aktiviti merancang oleh seseorang individu untuk memindahmilikkan harta yang dimiliki kepada orang lain berdasarkan kepada hukum syarak (Sadali, 2006).

Menurut Muhamad Husni (2015) perancangan harta amatlah penting bagi memastikan harta sentiasa beredar dalam pelbagai sektor sehingga memungkinkan pengembangan harta dan penggunaannya secara meluas dan menyeluruh. Melalui pengurusan harta yang baik, ia dapat menjamin peredaran harta secara meluas berpandukan hukum Syarak agar ianya dapat dinikmati oleh masyarakat dan negara.

Menurut Imam Abu Ishak as-Shatibi pula selain dari untuk memelihara kemaslahatan atau kepentingan manusia dalam menjalani kehidupan di dunia, ia juga bertujuan memelihara kepentingan manusia selepas kematian mereka. Ini menunjukkan bahawa Islam membawa rahmat kepada manusia sekalian alam sebagaimana firman Allah (s.w.t) yang bermaksud iaitu: “Kami

tidak mengutuskan engkau (wahai Muhammad), melainkan menjadi rahmat untuk semesta alam” (Al-Quran 21: 107).

Perbincangan berkaitan perancangan harta adalah bertepatan dengan maqasid syariah iaitu hifz al-mal. Syariah Islam dibina dengan asas untuk membawa kepada kebaikan dan menolak keburukan, dengan sifat keadilan, rahmat, kebajikan dan kebijaksanaan yang tulen untuk menyelesaikan masalah manusia dalam kehidupan dunia dan akhirat. Harta adalah nadi kehidupan manusia bagi menjamin kesejahteraan hidup. Oleh itu, Islam menggalakkan manusia untuk mencari rezeki dan memiliki harta dengan cara yang sah menurut syarak dan undang-undang.

Beberapa cara pemilikan harta yang diharuskan dalam Islam antaranya ialah jual beli, zakat, sedekah, wasiat, hibah, wakaf, pusaka dan selainnya. Islam juga menggalakkan pelaburan positif dan meluaskan manfaat ekonomi. Dalam masa yang sama, Islam mengharamkan pengambilan harta melalui penindasan, penipuan dan pencerobohan hak orang lain. Perbuatan mencuri, memberi dan menerima riba dan/atau rasuah, menyeludup dan sebagainya termasuk muamalah yang melibatkan *gharar* dan *maysir* adalah haram dalam Islam. Dalam konteks perancangan harta bolehlah digambarkan bahawa seseorang itu hendaklah merealisasikan keadilan, kesaksamaan, syura iaitu perbincangan, rahmah dan hikmah dalam setiap tindakan dan perancangan yang dibuat bagi diri sendiri mahupun mereka yang berada disekeliling. Firman Allah (s.w.t) yang bermaksud: “Sesungguhnya Allah menyuruh (kamu) berlaku adil dan berbuat kebajikan” (Al-Quran, 16: 90).

Membuat kebajikan bukan sahaja kepada ahli keluarga. Harta yang diperolehi juga perlu dibelanjakan untuk kebajikan masyarakat umum (Mohd Zamro & Mohd Ridzuan, 2006). Dalam hal ini, Islam telah menyediakan mekanisme bagi umat Islam untuk membelanja dan menggerakkan harta mereka untuk membantu kepada mereka yang memerlukan contohnya, melalui sedekah, hibah, wakaf dan sebagainya. Wakaf memainkan peranan dalam menyediakan kemudahan asas kepada masyarakat seperti pendidikan, perumahan, kesihatan dan tempat ibadat. Begitu juga dengan pembentukan dana wakaf yang mampu menggerakkan harta yang diwakafkan agar ianya dapat digunakan manfaatnya oleh masyarakat. Di Malaysia, antara contoh dana dan harta wakaf yang ada ialah dalam bentuk masjid dan tanah perkuburan, surau, sekolah dan pondok pendidikan, ladang pertanian, kebun, dusun dan bendang, hasil sewaan tanah, tanah terbiar, bangunan (kedai, rumah kedai, kediaman), hasil sewaan bangunan, wakaf wang tunai, saham wakaf, wakaf saham, wakaf kaki, skim pelan takaful wakaf dan sebagainya (Siti Mashitoh, 2007). Melalui bentuk-bentuk wakaf ini, ia mampu menggerakkan harta yang dimiliki untuk manfaat bersama. Justeru itu, boleh disimpulkan bahawa Islam bukan hanya menyeru umatnya untuk mengumpulkan harta malah menggalakkan mereka membuat perancangan harta untuk kepentingan ahli keluarga dan masyarakat.

Perancangan harta penting bagi menangani masalah berkaitan harta yang tidak dituntut. Dalam sebuah akhbar tempatan melaporkan terdapat sejumlah lebih RM65 billion harta pusaka di negara ini yang masih belum dituntut (Sinar Harian, 2020). Melihat kepada jumlah harta yang belum dituntut dan harta beku yang tinggi, sudah tentu ianya merupakan suatu kerugian bagi ahli waris khususnya dan juga negara amnya. Perkara ini pasti tidak akan berlaku sekiranya harta tersebut dirancang dan diuruskan dengan sebaik mungkin. Adalah amat penting bagi pemilik harta untuk merancang dan mengurus harta yang dimiliki semasa hidup demi kesenangan ahli waris terutama

selepas berlakunya kematian. Tanpa pengurusan harta, perkara di atas akan berlanjutan dan ahli waris tidak mendapat faedah dan terhalang daripada menikmati harta tersebut. Hal ini bertentangan dengan kepentingan yang dijaga dalam Islam dan tidak mencapai maqasid al-syariah seperti yang telah dijelaskan sebelum ini.

Selain faraid, antara alternatif yang boleh dilakukan oleh umat Islam dalam menguruskan harta mereka ialah dengan melakukan perlantikan pentadbir pusaka semasa hidup bagi memudahkan proses pembahagian mengikut faraid, melakukan wakaf dan hibah (Ahmad Hidayat, 2008), membuat penamaan kepada anggota keluarga terdekat yang benar benar berhak untuk menerima simpanan mereka dan mengadakan surat wisoyah (Abdul Aziz & Yusmawati, 2006). Oleh itu, setiap individu yang memiliki harta perlu proaktif dalam menguruskan harta yang dimiliki mengikut kaedah yang telah digariskan oleh Islam termasuklah dalam soal perwarisan harta kerana apabila meninggal dunia nanti, maka ahli warislah yang akan menerima dan mengambil faedah daripada harta si mati.

Kajian yang dibuat oleh Rusnadewi dan Noor Inayah (2010) mendapati, masyarakat di negara ini kurang mempunyai kecenderungan untuk membuat perancangan pengagihan harta secara teliti terutamanya dalam membuat perancangan awal. Kesan daripada itu, mereka telah bergantung sepenuhnya kepada sistem pewarisan harta selepas kematian iaitu pembahagian secara faraid. Oleh yang demikian, persepsi masyarakat yang berpandangan bahawa perancangan awal pengagihan harta tidak diperlukan sama sekali memandangkan harta boleh diagihkan melalui sistem faraid sewajarnya dikikis. Sebaliknya, perancangan pengagihan harta semasa hidup seperti pemberian melalui hibah dan wasiat perlu dipertingkatkan bagi mengelakkan masalah tersebut kerana ia jelas merugikan masyarakat Islam.

Walaupun konsep perancangan harta telah diiktiraf dalam Islam dan mempunyai manfaat dan tujuan kebaikan, namun malangnya, masih ramai di kalangan masyarakat di negara ini mempunyai persepsi bahawa perancangan harta tidak diperlukan sama sekali kerana Islam telah memperuntukkan mengenai faraid sebagai kaedah pembahagian harta selepas kematian. Mereka dilihat kurang berminat untuk membuat perancangan rapi, terutamanya dari sudut persiapan pengagihan harta sebelum mereka meninggal dunia. Masalah kegagalan dan kelewatan pengagihan harta pusaka di Malaysia timbul berikutan ramai yang tidak menyedari tentang keperluan dan kepentingan untuk membuat perancangan awal pengagihan harta (Rusnadewi & Noor Inayah, 2010).

Kursus Praperkahwinan

Christine Senediak (1990) menyifatkan kursus praperkahwinan sebagai satu pencegahan latihan kemahiran (*preventive skills training*) sebelum berumahtangga, merangkumi kemahiran komunikasi, perundingan, penyelesaian masalah dan membuat keputusan. Kursus ini disediakan untuk memberi pengetahuan awal kepada pasangan berkenaan maklumat serta cara untuk mempertahankan dan memperbaiki hubungan mereka setelah berkahwin. Kursus praperkahwinan dapat membantu pasangan memahami dan mengatasi krisis perkahwinan sekiranya ia muncul dalam hubungan mereka.

Kandungan kursus praperkahwinan kebiasaannya meliputi topik-topik seperti komunikasi, penyelesaian konflik, peranan dalam perkahwinan, komitmen, pengurusan kewangan, seksual, keibubapaan dan asal usul keluarga pasangan (Killawi et al., 2017). Selain itu, topik pengurusan wang, perumahan, insuran dan hutang (Silliman dan Schumm, 1999) dan topik berkaitan kerohanian (Senediak, 1990) turut dibincangkan dalam kursus praperkahwinan. Program kursus praperkahwinan ini telah menjadi tumpuan dasar awam dan antarabangsa kerana beberapa negara telah mencadangkan dan menawarkan insentif yang memerlukan setiap pasangan menyertai kursus pra-perkahwinan (Carroll & Doherty, 2003).

Di Malaysia, kursus praperkahwinan diwajibkan kepada setiap individu muslim yang akan berkahwin. Kursus ini dilaksanakan bertujuan untuk memberi maklumat dan pendedahan awal kepada bakal-bakal suami isteri yang akan mendirikan rumahtangga agar dapat mengurangkan permasalahan rumahtangga dan perceraian yang dihadapi oleh umat Islam di Malaysia. Kursus praperkahwinan ini biasa dirujuk sebagai kursus kahwin atau kursus perkahwinan. Peserta yang berjaya melengkapkan modul 13 jam kursus praperkahwinan akan mendapat Sijil Kursus Praperkahwinan yang diperlukan untuk prosedur permohonan perkahwinan (Saidon et al., 2016). Kursus ini juga adalah bertujuan membantu bakal pengantin menyelami proses-proses yang lazim dialami oleh seseorang sebelum memasuki alam perkahwinan dan mengetahui persediaan yang perlu dilakukan sebagai langkah memantapkan keyakinan diri (Ruhil Hayati, 2011).

Kursus praperkahwinan di Malaysia telah bermula sejak era 90-an untuk memberi ilmu dan persediaan yang lengkap kepada semua pasangan yang akan melangsungkan perkahwinan (Siti Murdiah et al., 2016). Kursus praperkahwinan di Malaysia menggunakan Modul Bersepadu Kursus Pra Perkahwinan Islam (MBKPI) yang digubal di bawah kelolaan Bahagian Keluarga Sosial dan Komuniti, Jabatan Kemajuan Islam Malaysia (JAKIM). MBKPI ini digunakan bermula pada tahun 1996 dan diwajibkan pelaksanaannya pada tahun 1997 kepada semua negeri-negeri di Malaysia.

Pelbagai kajian telah dibuat mengenai pelaksanaan dan kesan kursus praperkahwinan ini seperti Siti Masliza (1997) dan Towil (1999) kajian di Selangor, Safuan Yaacob (2000) di pantai timur, Khairil Azuar (2002) di Terengganu dan Latipah (2003) di Kedah. Kajian-kajian ini mendapati kursus ini berkesan untuk memberikan pendedahan ilmu-ilmu kekeluargaan kepada pasangan yang akan berkahwin dan membentuk keluarga bahagia (Siti Masliza, 1997).

Oleh yang demikian, tidak hairanlah Timbalan Menteri Wanita, Keluarga dan Pembangunan Komuniti dalam Hansard Parlimen bertarikh 13 November 2018 menyatakan hasrat kerajaan untuk mewajibkan kursus praperkahwinan ini kepada pasangan bukan Islam bagi menangani isu perceraian pasangan dalam tempoh 5 tahun perkahwinan. Satu daripada tiga perkahwinan pertama berakhir dalam usia perkahwinan bawah 5 tahun. (Luqman Arif, 2018).

Walaupun begitu, Syarifah Nur Nusrach dan Suhaili (2018) berpendapat, tempoh masa 13 jam adalah tidak mencukupi dan ia akan menjejaskan keberkesanan kursus praperkahwinan tersebut. Oleh itu, mereka mencadangkan bahawa tempoh untuk melengkapkan kursus perlu diperluaskan untuk merangkumi semua topik. Saidon et al. (2016) pula mengkritik pengecualian kepada kursus praperkahwinan untuk orang tertentu. Pengecualian yang diberikan adalah berbeza antara negeri-

negeri, seperti di negeri Selangor, pengecualian diberikan kepada orang yang pernah berkahwin dan bercerai yang berumur 40 tahun ke atas, orang kurang upaya, orang asing yang tidak faham bahasa Melayu, dan Pendaftar Perkahwinan. Bagi negeri Kelantan pula, pengecualian diberikan kepada mereka yang mempunyai latar belakang dalam pengajian Islam seperti mempunyai Sijil Menengah Ugama (SMU), atau Sijil Tinggi Agama Malaysia (STAM), ijazah pengajian Islam dan mereka yang sekurang-kurangnya 5 tahun belajar di sekolah tradisional Islam (sekolah pondok). Rafeah et al. (2016) berpandangan sepatutnya tiada pengecualian kepada kursus praperkahwinan ini. Mereka yang mempunyai latar belakang dalam pengajian Islam atau pengetahuan Syariah juga perlu mengikuti kursus ini, kerana kursus ini dapat membantu mereka menghadapi kehidupan perkahwinan seperti konsep penyelesaian masalah, kemahiran komunikasi bersama pasangan dan pengurusan kewangan; yang tidak termasuk dalam pengajian akademik mereka.

Kajian-kajian lepas membuktikan keperluan dan keberkesanan kursus praperkahwinan ini, walau bagaimana pun, prosedur dan pelaksanaannya boleh ditambahbaik.

Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI)

Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI) merupakan hakcipta terpelihara di atas nama Ketua Pengarah, Jabatan Kemajuan Islam Malaysia (JAKIM) di bawah kelolaan Bahagian Keluarga, Sosial dan Komuniti JAKIM. MBKPI menjadi piawai rujukan dan panduan kepada Jabatan Agama Islam Negeri dan syarikat/penganjur yang melaksanakan kursus praperkahwinan di negeri-negeri tanpa sebarang pindaan. MBKPI disemak lima tahun sekali oleh JAKIM bagi tujuan pemantapan dan pemerksaan (Utusan Malaysia, 22 September 2015).

Sejarah MBKPI bermula pada tahun 1996 bila mana Bahagian Pembangunan Keluarga, Sosial dan Pengurusan Masjid telah mengemaskini modul bagi pengukuhan institusi keluarga Islam dengan 'Modul Bersepadu Kursus Pra Perkahwinan Islam (MBKPI)' (Ruhil Hayati, 2011).

Susulan daripada penggubalan MBKPI 1996, Garis Panduan Pengawalan Dan Pelaksanaan Modul Bersepadu Kursus Pra Perkahwinan 1997 telah diterbitkan. Pada tahun 2002, semakan telah dibuat dan dikemaskinikan terhadap modul Kursus Pra Perkahwinan Islam 1996. Hasil daripada itu terbit modul Kursus Pra Perkahwinan Islam 2002, (versi 2) dengan penambahbaikan dari segi isi kandungan, susunan tajuk serta masa yang ditetapkan bagi setiap tajuk (JAKIM, 2002).

Bagi memastikan modul yang disediakan tersebut sesuai dengan keperluan semasa dan perkembangan intelektual masyarakat, pemurnian dan penambahbaikan dibuat kepada MBKPI. Garis Panduan Kawalan MBKPI dan MBKPI Saudara Baru telah diterbitkan sebagai panduan dan peraturan kepada semua pihak yang terlibat dalam melaksanakannya di seluruh negeri. Ianya diguna pakai oleh semua penganjur-penganjur kursus dan menjadi panduan kepada JAKIM dan Jabatan Agama Islam Negeri (JAIN) untuk membuat pemantauan yang bersistematik terhadap pelaksanaan MBKPI oleh semua penganjur kursus (Siti Murdiah et al., 2016).

Modul kursus tersebut kemudiannya dikemaskini sekali lagi pada tahun 2013 dengan sedikit perubahan pada nama iaitu Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI). Selain itu, terdapat penambahan grafik dan video di setiap slot supaya para peserta lebih memahami dengan lebih jelas maklumat yang ingin disampaikan. Selaras dengan itu, Garis Panduan

Pelaksanaan Kursus Praperkahwinan Islam Berdasarkan Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI) 2016 telah diterbitkan, dan memperuntukkan bahawa MBKPI akan disemak setiap 5 tahun. Nizaita Omar et al. (2018) dalam kertas kerja mereka bertajuk ‘Penelitian Terhadap Pelaksanaan Kursus Praperkahwinan Islam Di Malaysia’ telah membuat analisis dan perbandingan kandungan MBKPI versi 1(1996), 2 (2002) dan 3 (2013). Walau bagaimanapun, didapati masih tiada kajian dibuat berkenaan kandungan MBKPI versi 4 (2018).

3. Perbincangan dan Kesimpulan

Nizaita Omar et al. (2018) dalam kertas kerja mereka bertajuk ‘Penelitian Terhadap Pelaksanaan Kursus Praperkahwinan Islam Di Malaysia’ telah membuat analisis dan perbandingan kandungan MBKPI versi 1(1996), 2 (2002) dan 3 (2013). Kajian ini mengkaji kandungan MBKPI versi 4 (2018). Dapatan kajian mereka mengenai rumusan kandungan MBKPI versi 1 hingga versi 3; dan dapatan kajian ini mengenai rumusan kandungan versi 4 dipersembahkan dalam jadual 1 di bawah:

Jadual 1: Rumusan Perbandingan Kandungan MBKPI Versi 1-4.

PERKARA	VERSI 1 (1996)	VERSI 2 (2002)	VERSI 3 (2013)	VERSI 4 (2018)
JUMLAH TAJUK	10	11	11	10
SUSUNAN TAJUK	i. Perkahwinan dan Prosedur	i. Akidah	i. Akidah	i. Tasawwur Islam
	ii. Hubungan dalam Keluarga	ii. Akhlak	ii. Akhlak	ii. Perkahwinan
	iii. Akhlak	iii. Ibadah	iii. Ibadah	iii. Prosedur Perkahwinan
	iv. Komunikasi Suami Isteri	iv. Perkahwinan dan Prosedur	iv. Perkahwinan dan Prosedur	iv. Tanggungjawab Suami Isteri
	v. Pengurusan Sumber Keluarga	v. Komunikasi Suami Isteri	v. Komunikasi Suami Isteri	v. Komunikasi Suami Isteri
	vi. Pengurusan Stress dan Konflik	vi. Hubungan dalam Keluarga	vi. Hubungan dalam Keluarga	vi. Pengurusan Kewangan
	vii. Akidah	vii. Pengurusan Kewangan dan Masa	vii. Pengurusan Kewangan dan Masa	vii. Pengurusan Kesihatan
	viii. Ibadah	viii. Pengurusan Kesihatan Keluarga	viii. Pengurusan Kesihatan Keluarga	viii. Pengurusan Stress dan Konflik
	ix. Pengurusan Kesihatan	ix. Pengurusn Tekanan (Stress) dan Konflik	ix. Pengurusn Tekanan (Stress) dan Konflik	ix. Pembubaran Perkahwinan
	x. Pembubaran Perkahwinan	x. Perkhidmatan Runding Cara di Jabatan Agama Islam Negeri	x. Perkhidmatan Runding Cara di Jabatan Agama Islam Negeri	x. Majlis Akad Nikah dan Walimatul Urus
	-	xi. Pembubaran Perkahwinan	xi. Pembubaran Perkahwinan	-
KAEDAH PENYAMPAIAN	Kuliah	Kuliah Pembentangan	Kuliah Pembentangan Video (setiap tajuk)	Kuliah Perbentangan Slaid Video (setiap tajuk)

Dapat dilihat, MBKPI Versi 4 (2018) mengandungi 10 topik yang sedikit berbeza iaitu Tajuk 1 Tasawwur Islam, Tajuk 2 Perkahwinan, Tajuk 3 Prosedur Perkahwinan, Tajuk 4 Tanggungjawab Suami Isteri, Tajuk 5 Komunikasi Suami Isteri, Tajuk 6 Pengurusan Kewangan, Tajuk 7 Pengurusan Kesihatan, Tajuk 8 Pengurusan Stres dan Konflik, Tajuk 9 Pembubaran Perkahwinan dan Tajuk 10 Majlis Akad Nikah dan Walimatulurus. MBKPI ini walau bagaimana pun masih menggunakan Garis Panduan Pelaksanaan Kursus Praperkahwinan Islam Berdasarkan Modul Bersepadu Kursus Praperkahwinan Islam (MBKPI) 2016.

Secara ringkas, analisis kandungan MBKPI mendapati terdapat 10 tajuk yang dibincangkan meliputi pelbagai aspek seperti tasawwur Islam, tanggungjawab perkahwinan, komunikasi, pengurusan kesihatan serta pengurusan stress dan konflik. Kajian mendapati tiada perbincangan berkaitan perancangan harta dalam MBKPI versi 4 sedia ada. Perbincangan tajuk 6 Pengurusan Kewangan selama 1 jam memfokuskan kepada pengurusan kewangan dalam keluarga. Peserta didedahkan bagaimana mengurus bajet, defisit (kekurangan) dan surplus (lebih) dalam kewangan keluarga, menyediakan perlindungan (takaful) dan membuat simpanan kecemasan serta pelaburan. Dengan kata lain, ia berkenaan pengurusan pendapatan sama ada bentuk tunai atau selain tunai, serta pengurusan hutang. Pengurusan kewangan yang baik akan menghasilkan harta keluarga sama ada dalam bentuk simpanan tunai, atau asset- harta alih atau harta tak alih. Selain itu, tajuk 9 ada membincangkan kesan pembubaran perkahwinan seperti iddah, nafkah, hadhanah, mut'ah, harta sepencarian dan ruju'. Walau bagaimanapun, perancangan harta sebagai satu persediaan menghadapi musibah, perceraian atau kematian pasangan tidak dibincangkan. Pengkaji berpendapat, pendedahan kepada perancangan harta sebelum dan semasa perkahwinan adalah sama penting untuk dibincangkan seperti pentingnya dibincangkan hak suami isteri terhadap harta sepencarian selepas pembubaran perkahwinan.

Perancangan dan pengurusan harta adalah satu topik yang sangat penting dalam sesebuah keluarga. Tanpa perancangan dan pengurusan harta yang baik, sesebuah keluarga akan berada dalam keadaan yang sukar jika keluarga ditimpa musibah seperti perceraian, kemalangan dan kematian. Laporan akhbar media massa dan media sosial seringkali mendedahkan keadaan isteri, bekas isteri atau balu, serta anak-anak yang teraniaya dalam kes-kes perebutan harta yang berlaku antara ahli keluarga dan waris. Perkara ini berlaku akibat daripada kegagalan merancang dan menguruskan harta dengan baik semasa dalam tempoh perkahwinan.

Pasangan yang bercerai sering menghadapi kemelut pertikaian perebutan harta apatah lagi jika tiada perancangan harta. Dalam kes pasangan meninggal dunia, pertikaian turut melibatkan waris-waris dan bukan waris. Banyak berita melaporkan kesusahan keluarga akibat daripada perceraian atau kematian. Antara sebab utama ialah kurangnya pengetahuan mengenai kepentingan merancang dan mengurus harta semasa dalam perkahwinan. Kegagalan ini menyebabkan proses pengurusan harta selepas perceraian dan proses pembahagian pusaka menjadi rumit. Susulan daripada ini, dilaporkan terdapat harta bernilai RM70 billion yang dibekukan kerana ia tidak dapat dituntut atau tidak dituntut oleh waris (Sinar Harian; 28 September 2020).

Pada 30 November 2020, Jabatan Perangkaan Malaysia mengeluarkan kenyataan media bagi perangkaan perkahwinan dan perceraian Malaysia 2020. Laporan Statistik Perkahwinan dan Perceraian Malaysia 2020 merekodkan bilangan rakyat Malaysia yang berkahwin tahun 2019

menurun sebanyak 1.2% kepada 203,821 orang, berbanding 206,352 orang pada tahun 2018, manakala kadar perceraian rakyat Malaysia meningkat sebanyak 12% kepada 56,975 pada 2019, berbanding 50,862 pada tahun 2018.

Jika difokuskan kepada perkahwinan orang Islam sahaja, bilangan perkahwinan pada tahun 2019 menurun sebanyak 1.5% daripada 150,098 pada tahun 2018 kepada 147,847. Bilangan perceraian orang Islam pula meningkat sebanyak 13% daripada 40,269 pada 2018 kepada 45,502 tahun 2019. Kadar peningkatan perceraian ini lebih tinggi daripada peningkatan perceraian di kalangan bukan Islam yang mencatatkan peningkatan 8.3%.

Menurut laporan tersebut, umur perkahwinan tertinggi dilaporkan pada golongan berumur 25-29 tahun bagi lelaki dan perempuan manakala umur perceraian tertinggi pula ialah pada usia 30-34 tahun bagi lelaki dan perempuan. Data ini menunjukkan banyak berlaku perceraian dalam kalangan pasangan muda. Oleh yang demikian, bukan sahaja ilmu pengurusan kewangan perlu dititik beratkan kepada pasangan yang ingin mendirikan rumah tangga, tetapi pasangan juga perlu didedahkan dengan ilmu perancangan harta semasa dalam perkahwinan supaya selepas perceraian atau kematian pasangan, mereka mampu menguruskan harta dengan baik.

Data statistik ini menunjukkan adanya keperluan untuk pendedahan perancangan harta perkahwinan kepada pasangan yang bakal berkahwin. Medium kursus praperkahwinan yang diwajibkan kepada semua orang Islam dilihat sebagai satu medium atau forum yang sesuai, kondusif dan efektif. Memandangkan semakan semula MBKPI dibuat secara berkala setiap 5 tahun, kajian ini bertujuan mencadangkan penambahbaikan kandungan MBKPI sedia ada.

Walaupun tiada tajuk perancangan harta dalam MBKPI, pengkaji berpendapat kesedaran perancangan harta masih boleh diterapkan dalam tajuk-tajuk sedia ada. Semasa perbincangan objektif perkahwinan dalam tajuk 1 misalnya, peserta boleh ditanya soalan, apakah objektif perkahwinan dari segi kewangan? Apakah jangkaan kedudukan kewangan keluarga dalam masa 5 atau 10 tahun akan datang? Objektif perkahwinan untuk menghalalkan perhubungan kelamin antara lelaki dan perempuan serta untuk membina keluarga dan melahirkan zuriat keturunan telah menjadi pengetahuan umum. Apa yang penting juga untuk diketengahkan kepada peserta kursus adalah apakah hala tuju pembinaan kewangan dan harta keluarga mereka.

Selain itu, tajuk 3 prosedur perkahwinan ada membincangkan mengenai mas kahwin sebagai hak pihak isteri. Kesan perceraian dan kematian suami terhadap mas kahwin boleh dibincangkan bersama. Begitu juga dalam tajuk 4, tanggungjawab suami isteri boleh membincangkan tanggungjawab masing-masing berkaitan kewangan dan harta. Tajuk 5 berkaitan komunikasi boleh menjelaskan kepada peserta pentingnya ada komunikasi yang telus berkenaan pengurusan kewangan dan perancangan harta. Tajuk 7 mengenai kesihatan mungkin boleh ditanya persoalan kepada peserta apakah maksud kesihatan kewangan? Ini akan membuka minda peserta tentang aspek kewangan yang sihat. Soalan hipotetikal juga boleh ditanyakan kepada peserta seperti jika suami gagal menyediakan nafkah tempat tinggal, makanan dan pakaian yang minimum, berapa lamakah sesebuah perkahwinan boleh bertahan? Soalan begini boleh dikemukakan dalam tajuk 8, stress dan konflik yang mungkin berlaku akibat pengurusan kewangan yang lemah.

Matlamat perkahwinan yang utama adalah untuk membina keluarga. Tiada sesiapa pun berkahwin untuk bercerai, sama ada bercerai hidup atau bercerai mati, apatah lagi untuk meruntuhkan keluarga. Hakikatnya, perceraian dan kematian adalah satu kemungkinan yang boleh atau pasti berlaku kepada setiap perkahwinan. Apa yang kita cuba elakkan ialah pecah belah keluarga apabila berlaku perceraian atau kematian pasangan akibat perebutan harta. Data statistik Jabatan Perangkaan Malaysia 2020 menunjukkan jumlah perceraian yang meningkat, melibatkan pasangan daripada semua peringkat umur. Data juga menunjukkan perceraian banyak juga berlaku kepada pasangan muda, atau berlaku di usia muda perkahwinan (iaitu dalam 5 tahun pertama tempoh perkahwinan). Oleh itu, pendedahan persediaan menghadapi perceraian semasa kursus praperkahwinan adalah patut dan mempunyai asas. Ilmu perancangan harta akan bertindak sebagai persediaan awal menghadapi perceraian atau kematian.

Bagi tajuk perancangan harta pula, mungkin ada yang berpandangan masih terlalu awal untuk pendedahan dalam kursus praperkahwinan memandangkan peserta sedang fokus untuk mendirikan rumahtangga dan kurang berkesan. Pengkaji berpendapat, kaedah hipotetikal atau simulasi situasi perceraian atau kematian mungkin akan lebih memberi kesan. Boleh juga menggunakan cara kes studi dengan menggunakan kes sebenar dan meminta peserta membincangkannya. Pendekatan ini akan dimasukkan dalam cadangan modul dalam bab ini.

Adalah dicadangkan modul perancangan harta dijadikan satu topik wajib dalam modul kursus praperkahwinan Islam di Malaysia. Kajian lepas mendapati kursus praperkahwinan ini berkesan dalam membantu bakal-bakal pengantin membuat persiapan diri untuk mendirikan rumahtangga. Penambahan kandungan berkaitan perancangan harta yang komprehensif dalam MBKPI diharapkan dapat memberikan pendedahan awal kepada peserta kursus praperkahwinan yang bakal mendirikan rumahtangga seterusnya dapat membuat perancangan harta sebagai persediaan untuk kelangsungan hidup dalam kes perceraian atau kematian pasangan. Diharapkan isu bekas isteri/suami dan anak-anak ataupun waris teraniaya akibat perebutan harta dapat dikurangkan.

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Penggunaan Pelantar Pembelajaran Digital dalam Kalangan Guru Bahasa Melayu Sekolah Rendah Sewaktu Perintah Kawalan Pergerakan

Nasuha Shamsudin^{1*}, Wan Muna Ruzanna Wan Mohammad^{1*}

¹ Fakulti Pendidikan, Universiti Kebangsaan Malaysia, Bangi, Malaysia

* Pengarang Koresponden: nasuhashamsudin59@gmail.com, drmunamohammad@gmail.com

Abstrak: Wabak Corona Virus telah membawa perubahan kepada bidang pendidikan di seluruh dunia. Pembelajaran di atas talian telah mengambil tempat para guru dan murid sepanjang tempoh Perintah Kawalan Pergerakan (PKP) bagi memastikan kelangsungan pembelajaran. Kementerian Pelajaran Malaysia (KPM) telah mengambil tindakan pantas dengan menyediakan Pelantar Pembelajaran Digital atau dikenali dengan Digital Learning Platform (DLP) bagi memudahkan para guru dan murid melangsungkan sesi pengajaran dan pembelajaran secara jarak jauh. Kajian ini bertujuan untuk menentukan tahap penggunaan pelantar pembelajaran digital dan faktor-faktor luar yang menghalang penggunaan pelantar pembelajaran digital dalam kalangan guru bahasa Melayu (BM) di Sekolah Kebangsaan (SK) di Kuala Lumpur. Kajian tinjauan ini melibatkan 108 orang guru BM di SK yang dipilih secara rawak di sekitar Kuala Lumpur. Statistik deskriptif digunakan bagi menjawab persoalan kajian. Instrumen kajian yang digunakan ialah soal selidik yang diadaptasi daripada soal selidik Vespanathan Supramaniam (2014). Soal selidik terbahagi kepada tiga bahagian iaitu bahagian A bagi demografi responden, bahagian B bagi tahap penggunaan DLP dan bahagian C bagi faktor-faktor luar menghalang penggunaan DLP dalam kalangan guru BM sewaktu PKP. Soal selidik diedarkan kepada responden sepanjang tempoh PKP dilaksanakan. Dapatan kajian menunjukkan bahawa tahap penggunaan DLP dalam kalangan guru BM sewaktu PKP berada ditahap sederhana dengan purata skor bagi keseluruhan item (min 3.22). Penggunaan aplikasi DLP paling tinggi ialah Google Classroom iaitu dengan nilai (min 3.29) diikuti dengan Microsoft 365 (min 1.92) dan Microsoft Education (min 1.50). Selain itu, dapatan kajian bagi faktor-faktor luar yang menghalang penggunaan DLP yang diperolehi mendapati item kemudahan alatan TMK dan internet di rumah guru sewaktu tempoh PKP amat tinggi iaitu pencapaian (min 2.79). Hasil analisis jelas mendapati bahawa tahap dan faktor-faktor luaran yang menghalang penggunaan DLP dalam kalangan guru BM sewaktu PKP berada pada tahap sederhana. Kajian ini akhirnya mencadangkan supaya kemudahan alatan TMK dan internet para guru sewaktu tempoh PKP diberi peruntukkan bagi menggalakkan penggunaan DLP dalam kalangan guru BM sepanjang PKP dilaksanakan.

Kata Kunci: DLP, Tahap Penggunaan DLP, Faktor Luar Menghalang DLP

Abstract: The Corona Virus outbreak has brought changes to the field of education around the world. Online learning has taken the place of teachers and students throughout the period of the Movement Control Order (PKP) to ensure the continuity of learning. The Ministry of Education Malaysia (MOE) has taken swift action by providing a Digital Learning Platform or known as Digital Learning Platform (DLP) to facilitate teachers and students to conduct teaching and

learning sessions remotely. This study aims to determine the level of use of digital learning platforms and external factors that prevent the use of digital learning platform among teachers Malay (BM) at Sekolah Kebangsaan (SK) in Kuala Lumpur. This survey study involved 108 BM teachers in SK who were randomly selected around Kuala Lumpur. Descriptive statistics were used to answer the research questions. The research instrument used was a questionnaire adapted from the questionnaire of Vespanathan Supramaniam (2014). The questionnaire was divided into three parts, namely part A for the demographics of the respondents, part B for the level of use of DLP and part C for external factors hindering the use of DLP among BM teachers during PKP. Questionnaires were distributed to respondents throughout the period the PKP was implemented. The findings showed that the level of use of DLP among BM teachers during PKP was at a moderate level with an average score for all items (mean 3.22). The highest use of DLP applications is Google Classroom with a value (mean 3.29) followed by Microsoft 365 (mean 1.92) and Microsoft Education (mean 1.50). In addition, the findings of the study for external factors that hinder the use of DLP obtained found that the items of ICT equipment and internet facilities in teachers' homes during the period of PKP is very high, namely achievement (mean 2.79). The results of the analysis clearly found that the level and external factors that hinder the use of DLP among BM teachers during PKP is at a moderate level. This study finally suggests that ICT and internet facilities for teachers during the PKP period be allocated to encourage the use of DLP among BM teachers during the implementation of PKP.

Keywords: DLP, DLP Usage Level, External Factors Preventing DLP

1. Pengenalan

Berdasarkan laporan daripada United Nations Educational, Scientific and Cultural (UNESCO), hampir 1.37 billion murid di seluruh dunia berada di rumah disebabkan penutupan sekolah bagi menangani pandemik COVID-19 yang melanda dunia. Inisiatif untuk menggunakan multimedia telah diperkenalkan oleh kementerian pendidikan di seluruh dunia untuk memastikan kesinambungan pembelajaran. Salah satu inisiatif ialah e-pembelajaran dalam pengajaran guru melalui pelantar pembelajaran digital (Digital Learning Platform). Walau bagaimanapun, penggunaan DLP bukanlah sesuatu yang boleh dicapai oleh setiap murid disebabkan kekangan infrastruktur, namun ia adalah salah satu pendekatan yang boleh guru-guru gunakan bagi memastikan murid tidak ketinggalan dalam pelajaran.

Di Malaysia, DLP berbentuk Google Classroom bermula pertengahan tahun 2019 telah disediakan oleh KPM melalui email khas untuk kegunaan guru dan murid. Guru-guru boleh memuat naik pelbagai bahan mengajar ke dalam pelantar untuk kegunaan murid. Guru juga boleh mula teroka sumber-sumber guru yang ada pada pelantar ini. Jika sebelum ini pada tahun 2011, KPM telah memperkenalkan VLE Frog di mana ia merupakan satu projek Transformasi sistem pendidikan di bawah Projek 1BestariNet maka setelah tamat tempoh perkhidmatan YTL, Google Classroom telah mengambil alih bagi meningkatkan kecekapan pengajaran dan pembelajaran digital sesuai dengan Pdpc Abad ke-21.

Namun begitu, kajian yang dilaksanakan oleh pihak kementerian pada tahun 2010 mendapati penggunaan Teknologi Komunikasi dan Maklumat (TMK) di sekolah adalah terhad. Hampir 80% guru menggunakan TMK kurang daripada satu jam seminggu dan hanya satu pertiga pelajar

menyatakan guru mereka kerap menggunakan TMK dalam pengajaran dan pembelajaran (Nurul Farhana, 2013). Menurut kajian yang dijalankan oleh Yusof Boon dan Sani Ngatimin (2011), tahap penggunaan makmal komputer di sekolah berada pada tahap yang sederhana dan antara masalah utama yang dihadapi dalam penggunaan makmal komputer di sekolah adalah kelewatan penyelenggaraan komputer-komputer yang rosak. Ini terbukti secara realitinya masih wujud kepincangan dalam proses pelaksanaan di peringkat sekolah yang perlukan penambahbaikan.

Kesediaan guru dalam menggunakan teknologi maklumat adalah merupakan satu petanda untuk melihat sejauh mana kefahaman guru terhadap teknologi baru serta dapat mengetahui kemahiran yang baru hasil daripada kursus yang telah dihadiri. Sebagai contoh, kajian oleh Sharifah Nor Puteh dan Kamarul Azman (2011) terhadap guru-guru di Daerah Gombak, Selangor, mendapati bahawa tahap kesediaan penggunaan TMK guru berada pada tahap sederhana (66.2%), dimana guru hanya menggunakan peralatan TMK asas seperti komputer riba dan pencetak. Beberapa faktor telah dikenalpasti mempengaruhi kesediaan guru untuk menggunakan TMK. Antaranya, peranan dan sikap guru dapat dikenalpasti sebagai salah satu faktor mempengaruhi kesediaan guru dalam menggunakan TMK (Abdul Razak & Jamaluddin, 1998). Selain itu, faktor seperti pengetahuan dan kemahiran yang baik dalam penggunaan TMK juga dapat meningkatkan keyakinan guru semasa mengajar (Balakrishnan, 2002).

2. Ulasan Kajian Lepas

2.1 VLE Frog

VLE merupakan inovasi dalam sistem pendidikan yang telah diperbaharui bertujuan untuk membuat penambahbaikan dalam sistem pendidikan yang sedia ada. Mohamed Noor (2001) mendapati bahawa bagi merealisasikan program ini, setiap guru perlu bersedia dan memahami peranan yang perlu dimainkan mereka untuk melaksanakan program VLE ini. Semua pihak terlibat dengan PdP, perlu bersedia dan memainkan peranan masing-masing bagi merealisasikan program e-pembelajaran ini.

Konsep yang digunakan dalam mengaplikasikan VLE ini adalah sama dengan penggunaan laman sosial lain seperti blogspot dan laman facebook. Menurut Siti Ezaleila dan Azizah (2011), rakyat Malaysia meluangkan purata masa hampir 20 jam seminggu di laman sosial untuk tujuan komunikasi, perkongsian maklumat serta hiburan. Mereka juga bersetuju bahawa laman sosial merupakan satu platform tambahan kepada interaksi luar talian yang biasa digunakan dan diyakini mampu menggantikan komunikasi lain dalam masa terdekat.

Menurut Rossafri dan Shabariah (2011), kaedah pembelajaran menggunakan laman sosial iaitu facebook dapat meningkatkan motivasi dan kefahaman pelajar. Berdasarkan kajian tersebut, sepatutnya tidak wujud masalah yang besar kepada pelajar dari segi kemahiran untuk menggunakan platform pembelajaran maya yang disediakan oleh pihak kementerian ini.

Menurut Norazilawati et al. (2013), guru-guru sains telah mengaplikasikan VLE Frog dan ia membantu pengajaran dan pembelajaran serta memotivasikan guru untuk mengajar lebih baik. Namun tidak semua guru selesai menjalankannya kerana terdapat masalah dan kekangan yang dihadapi guru semasa mengaplikasikannya. Antaranya ialah capaian Internet yang terhad, masa yang tidak mencukupi, silibus serta bebanan kerja guru yang banyak.

Guru menghadapi pelbagai cabaran untuk menggunakan teknologi dalam PdP. Sebagai contoh, kajian oleh Nurul Farhana (2013) terhadap guru-guru di sekolah-sekolah Malaysia mendapati bahawa hasil infrastruktur ICT dan motivasi daripada pentadbir mempunyai hubungan positif dengan sikap terhadap penggunaan VLE Frog dalam kalangan guru-guru. Kajian tersebut menunjukkan kedua-dua faktor itu merupakan cabaran dalam mengimplementasikan VLE Frog dalam PdP. Selain itu, kajian Ida Norini (2013) mendapati sebilangan besar pelajar tidak mahu mengambil kesempatan dengan kemudahan VLE Frog ini disebabkan oleh beberapa faktor. Faktor sikap malas dan tidak ingin mencuba untuk memajukan diri dalam bidang ilmu merupakan satu cabaran dalam mengimplementasikan aplikasi ini. Kesan daripada ini, portal VLE Frog tidak pernah dilawati dan dimanfaatkan.

Selain itu, kajian lepas oleh Norazilawati et al. (2013) mendapati bahawa terdapat empat masalah dan kelemahan utama yang dikenalpasti. Antaranya ialah capaian Internet terhad, masa yang tidak mencukupi, silibus dan bebanan kerja guru yang banyak. Beliau juga menyatakan isu pelaksanaan merupakan satu kekangan kepada pengaplikasian VLE Frog terutamanya di sekolah luar bandar. Antara isu tersebut ialah aspek teknikal, penyebaran maklumat tentang VLE Frog, latihan guru, dan pemantauan tidak berlaku dengan sempurna di kawasan ini. Dari segi kelengkapan peralatan, didapati kebanyakan sekolah luar bandar menghadapi masalah berkaitan capaian Internet. Perkara ini telah menimbulkan satu dilema dalam kalangan pentadbir sekolah berkenaan dan guru selaku pelaksana. Dalam kajian beliau tentang sikap terhadap pelaksanaan VLE Frog didapati guru menyambut baik hasrat KPM dalam pelaksanaan VLE Frog, tetapi ianya bertukar menjadi pandangan negatif apabila guru ingin mengaplikasikannya, terdapat halangan seperti capaian Internet yang rendah yang membantutkan usaha guru untuk menggunakannya. Guru mula beranggapan bahawa ia membuang masa sedangkan guru mempunyai bebanan kerja lain yang lebih penting untuk disiapkan.

Mohd Aizuddin (2013), dalam kajian beliau menyatakan guru yang menguasai penggunaan VLE Frog akan mudah mengendalikan aktiviti PdP. Maklumat dan isi kandungan pelajaran dapat disampaikan kepada pelajar dengan cepat dan sistematik. Menurut Siti Aminah (2013), tinjauan awal terhadap penggunaan VLE Frog mendapati masih terdapat ramai guru yang kurang kemahiran ICT. Hal ini bertambah serius apabila golongan pentadbir buta ICT dan tidak dapat menyokong guru mengaplikasikan VLE Frog di sekolah.

Hasil kajian yang dibuat oleh Aman Shah (2012) pula tentang persepsi guru terhadap pengintegrasian VLE Frog dalam proses pengajaran dan pembelajaran mendapati guru bersetuju bahawa pengintegrasian VLE Frog dalam proses pengajaran dan pembelajaran membantu mereka menyampaikan isi pelajaran dengan lebih baik. Majoriti guru memberikan pandangan bahawa penggunaan VLE Frog dalam proses pengajaran dan pembelajaran lebih efektif serta bermakna.

2.2 Pelantar Pembelajaran Digital

Pelaksanaan pendidikan digital merupakan salah satu elemen dalam pembelajaran abad ke 21 iaitu kemahiran maklumat, media dan teknologi. Ia sejajar dengan anjakan ketujuh PPPM 2013-2025 dalam melaksanakan e-pembelajaran di mana guru-guru akan mengajar murid-murid melibatkan penggunaan internet (Cheng, 2006; Fee, 2005). Sepanjang tempoh gelombang satu dan dua, guru-guru telah diberikan pelbagai kursus dalam melaksanakan pembelajaran digital di sekolah

khususnya melalui penggunaan pelantar pembelajaran maya Frog (2012-2019) dan Google Classroom (2019 – kini) yang bertujuan untuk meningkatkan kompetensi guru.

Walau bagaimanapun, pelbagai kekangan yang dihadapi oleh guru menyebabkan ICT kurang digunakan dalam sesi PdPc mereka (Tezci, 2009). Kekangan seperti talian internet, kurang peranti serta kompetensi guru adalah perkara yang menjadi isu dalam banyak kajian. Walau bagaimanapun, guru perlu melaksanakan pembelajaran digital secara kerap ketika di sekolah serta melakukan kajian sendiri terhadap penggunaan ICT. Hal ini kerana guru akan berhadapan dengan gelombang ketiga (2021-2025) dalam anjakan tersebut di mana penggunaan ICT diinovasi serta digunapakai merentas pelbagai bidang.

Kita mengambil situasi penggunaan Google Classroom, murid yang kerap menggunakan lebih mudah untuk memahami antaramuka dan cara akses. Ia perlu dilaksanakan dan diamal ketika sesi persekolahan kerana talian internet dan peralatan digital telah disediakan oleh pihak KPM kepada sekolah (KPM, 2013). Kurang penggunaan e-pembelajaran menyebabkan kesan pada masa akan datang. Pada ketika tempoh PKP ini, sudah pasti masih ada murid-murid dan guru-guru yang mempunyai masalah dalam akses kepada pelantar maya. Perkara berkaitan teknikal akan menyebabkan kurang motivasi murid untuk belajar. Oleh yang demikian, sebagai guru pada era pendidikan moden, kita perlu mempertingkatkan diri dengan kemahiran metodologi sistematik dan teknologi sedia ada.

Dalam keghairahan mengimplementasi teknologi, kita perlu memahami fungsi, keperluan dan pengintegrasian untuk menyediakan sebuah proses pembelajaran yang bukan sahaja berasaskan meningkatkan pencapaian semata-mata, malahan membangunkan kemahiran dan potensi diri murid.

Kita juga perlu berpandangan jauh dalam pendidikan digital, di mana terdapat ruang inovasi yang boleh digunakan untuk pelbagai bidang seperti pendidikan khas. Sesungguhnya peluang pendidikan digital bukan sahaja untuk pelajar normal, tetapi ia terbuka kepada murid berkeperluan khas. Walau bagaimanapun, ia perlu dimulakan dari awal secara rutin, supaya proses pembelajaran murid lebih lancar dan bermakna. Teknologi itu memudahkan, bukan menyulitkan. Kesimpulannya jelaslah bahawa pengajaran dan pembelajaran menggunakan pelantar pembelajaran digital memberi kesan positif dalam sistem pendidikan di Malaysia.

3. Perbincangan dan Kesimpulan

3.1.1 Tahap Penggunaan DLP dalam Kalangan Guru BM Sewaktu PKP

Data kajian berkaitan tahap penggunaan DLP mendapati jumlah keseluruhan skor purata bagi setiap item adalah 3.22. Daripada 8 item yang dikemukakan nilai min yang tertinggi ialah item kelapan iaitu “penggunaan DLP untuk memberikan tugas murid di rumah sewaktu tempoh PKP” adalah pada tahap yang tinggi (min 3.44 dan sisihan piawai 1.241). Dalam pada itu, nilai min yang terendah adalah pada item keempat iaitu “penggunaan DLP dalam perbincangan (forum) untuk membincangkan sesuatu topik sewaktu PKP” (min 2.97 dan sisihan piawai 1.363). Secara keseluruhannya dapat dilihat daripada jadual nilai min bagi setiap item adalah pada tahap tinggi iaitu dengan nilai skor min secara keseluruhannya 3.2 ke atas. Daripada dapatan kajian tersebut, dapat disimpulkan bahawa guru-guru Bahasa Melayu di Wilayah Persekutuan Kuala Lumpur

menggunakan DLP sewaktu PKP untuk menjayakan Pdpc. Tahap penggunaan DLP yang tinggi ini membuktikan bahawa guru telah bersedia dengan pengajaran dan pembelajaran jarak jauh sepanjang tempoh PKP ini berlangsung.

3.1.2 Tahap Penggunaan Aplikasi DLP dalam Kalangan Guru BM Sewaktu PKP

Kekerapan penggunaan aplikasi DLP guru BM SK sepanjang tempoh PKP juga diambil kita. Jadual 4.3 menunjukkan skor secara terperinci bagi tahap penggunaan aplikasi DLP dalam kalangan guru BM sewaktu tempoh PKP. Data kajian berkaitan tahap penggunaan aplikasi DLP mendapati jumlah keseluruhan skor purata bagi setiap item adalah 1.46. Daripada 16 item yang dikemukakan nilai min yang tertinggi ialah item pertama iaitu “Google Classroom” (min 3.29 dan sisihan piawai 1.299). Dalam pada itu, nilai min yang terendah adalah pada item kelima belas iaitu “Qtus” (min 1.19 dan sisihan piawai 0.549). Secara keseluruhannya dapat dilihat daripada jadual nilai min bagi setiap item adalah pada tahap sangat rendah iaitu dengan nilai skor min secara keseluruhannya 1.4 ke atas. Daripada dapatan kajian tersebut, dapat disimpulkan bahawa guru-guru Bahasa Melayu di Wilayah Persekutuan Kuala Lumpur menggunakan aplikasi DLP Google Classroom sewaktu PKP untuk menjayakan Pdpc. Tahap penggunaan Google Classroom yang tinggi ini membuktikan bahawa guru kerap menggunakan pelantar yang telah disediakan oleh KPM sepanjang tempoh PKP berbanding aplikasi lain.

3.2 Faktor-faktor yang Menghalang Penggunaan DLP dalam Kalangan Guru BM Sewaktu PKP

Analisis data menunjukkan bahawa skor purata min keseluruhan bagi faktor-faktor luaran yang menghalang penggunaan DLP dalam pengajaran dan pembelajaran bahasa Melayu sewaktu PKP ialah 2.34. Berdasarkan 9 item yang dikemukakan nilai min yang tertinggi ialah item ketiga iaitu “Kemudahan TMK dan internet di rumah guru sewaktu tempoh PKP” (min 2.79 dan sisihan piawai 1.319). Dalam pada itu, nilai min yang terendah adalah pada item kelima iaitu “Sokongan daripada pentadbiran sekolah untuk guru menjalankan sebarang aktiviti DLP sewaktu tempoh PKP” (min 1.69 dan sisihan piawai 0.963). Secara keseluruhannya dapat dilihat daripada jadual nilai min bagi setiap item adalah pada tahap rendah iaitu dengan nilai skor min secara keseluruhannya 2.3 ke atas. Daripada dapatan kajian tersebut, dapat disimpulkan bahawa guru-guru Bahasa Melayu di Wilayah Persekutuan Kuala Lumpur tidak mengalami masalah jika DLP dijalankan sewaktu tempoh PKP.

3.3 Implikasi Kajian

Kajian ini memberi gambaran bahawa penggunaan DLP dalam kalangan guru BM sewaktu PKP berada ditahap sederhana atas beberapa faktor luar yang menghalang penggunaan DLP dalam Pdpc guru . Terdapat beberapa implikasi yang dibincangkan melibatkan beberapa pihak hasil daripada kajian yang dijalankan ini.

3.3.1 Guru Bahasa Melayu

Kesan yang sangat baik daripada penggunaan DLP sebagai alat bantu mengajar sewaktu PKP. Ini merupakan salah satu kaedah bagi mengelakkan jangkitan wabak . Penggunaan DLP menjadikan murid berasa seronok dan menarik minat mereka dalam pembelajaran dan berperanan aktif di dalam bilik darjah. Hal ini merupakan satu cabaran bagi guru untuk bersedia menggunakan teknologi dan inovasi dalam pendidikan.

Kemahiran guru perlu dipertingkatkan sehingga proses pengajaran dan pembelajaran dengan menggunakan teknologi dan inovasi pendidikan dapat berjalan dengan baik. Kesediaan dan kemahiran guru dalam menggunakan teknologi dan inovasi pendidikan khususnya adalah penting. Oleh yang demikian, guru memainkan peranan yang utama kerana mereka juga merupakan orang yang akan menilai pembelajaran tersebut. Kesediaan dan kemahiran dalam teknologi pendidikan merupakan tuntutan dalam era moden. Kesediaan dan kemahiran boleh ditingkatkan melalui kursus dan latihan yang berkaitan dengan teknologi dan inovasi pendidikan, khususnya penggunaan DLP

3.3.2 Pihak Pentadbir Sekolah

Bagi menjayakan program penggunaan teknologi dan inovasi pendidikan, maka peranan pentadbir sekolah juga berperanan penting. Ini kerana sekolah dan pentadbir merupakan sebuah organisasi yang mempunyai kaitan dengan proses pembelajaran dan pengajaran. Pihak sekolah dan pentadbir turut bertanggungjawab dalam bekerjasama untuk mewujudkan kelancaran proses pembelajaran dan pengajaran dengan menggunakan DLP yang disediakan KPM. Oleh itu, untuk melancarkan proses pembelajaran dan pengajaran, dicadangkan supaya pihak pentadbir menyediakan jadual waktu guru serta memantau jadual tersebut berkaitan dengan sebaik mungkin.

3.3.3 Pihak Jabatan Pelajaran Negeri

Pihak Jabatan Pelajaran Negeri diharapkan dapat mengadakan program, kursus dan seminar mengenai aplikasi DLP semasa dan yang terkini. Program, kursus ataupun seminar dapat diguna dan bersesuaian dengan pengajaran dan pembelajaran murid. Ianya juga selaras dengan keperluan murid. Sebagai seorang yang profesional, guru harus belajar dalam meningkatkan profesionnya dan menyesuaikan dengan perkembangan pendidikan semasa. Diharapkan juga Jabatan Pelajaran Negeri dapat melatih dan melantik lebih ramai jurulatih utama menjadi mentor dan tempat rujukan kepada para guru khususnya latihan pendedahan teknologi dan inovasi pendidikan. Jurulatih yang dilantik juga sebagai tempat rujukan kepada para guru mengenai gaya pengajaran dan cara pengajaran bagi pemupukan kecerdasan emosi dalam pengajaran dan pembelajaran khususnya bagi guru yang baru dilantik.

3.3.4 Jabatan Pelajaran Daerah

Hal yang demikian, dengan cadangan terhadap pihak Jabatan Pelajaran Negeri, maka bagi pihak Jabatan Pelajaran Daerah pula sebaiknya mengadakan program, seminar dan kursus serta menyediakan laman web. Ini bertujuan untuk mendedahkan para guru mengenali pelbagai perkembangan pendidikan semasa di samping bertukar pendapat dan pengalaman antara satu sama lain. Jabatan Pelajaran Daerah juga diharapkan dapat membantu para guru menerapkan kemahiran yang diperolehi semasa latihan dan menyokong para guru supaya mengaplikasikan ilmu yang telah dipelajari daripada latihan sehingga guru tidak merasa terbeban dengan kewajipan menghadiri kursus sahaja. Guru-guru sewajarnya diberikan insentif lebih kerana mereka telah banyak dibebani dengan kerja sekolah yang kadang-kadang turut mengambil masa mereka di luar waktu sekolah. Bagi menceriaikan dan memberi semangat kepada para guru yang diwajibkan menghadiri kursus atau latihan, maka ada baiknya diberikan insentif.

3.3.5 Kementerian Pelajaran Malaysia

Kementerian Pelajaran Malaysia sebagai institusi tertinggi dalam pendidikan, diharapkan mengadakan penilaian dan pemantauan ke atas program-program latihan DLP yang telah disediakan. Latihan perlu dirancang dengan baik dengan memperhatikan tempoh latihan dan kandungan latihan. Latihan juga hendaknya berterusan dengan tempoh yang tidak terlalu singkat dan juga tidak terlalu lama. Tempoh latihan yang terlalu singkat tidak dapat memberikan masa yang cukup bagi jurulatih untuk melakukan hand-on. Beasley dan Sutton (dalam Christensen 2002) mendapati bahawa diperlukan minima 30 jam pelatihan untuk seseorang menumbuhkan kepercayaan diri terhadap sesuatu perkara. Selain itu, KPM juga diharap dapat memperbanyakkan prasarana, kemudahan internet serta menyediakan bajet-bajet yang diperlukan sekolah untuk guru mengaplikasikan penggunaan teknologi dan inovasi pendidikan. Pemerhatian dan penambahbaikan juga tidak hanya dijalankan di sekolah kawasan bandar, namun kawasan luar bandar juga harus diambil perhatian. Dengan adanya kemudahan dan prasarana yang sama antara bandar dan luar bandar dapat merapatkan jurang perbezaan yang kadang-kala berlaku antara sekolah bandar dan luar bandar. Hal yang demikian, murid-murid sekolah kawasan luar bandar juga merupakan generasi masa hadapan negara yang perlu diperhatikan juga kualiti pengajaran dan pembelajaran mereka.

3.4 Kesimpulan

Secara keseluruhannya bab ini telah membincangkan dengan lebih jelas mengenai hasil dapatan kajian. Melalui kajian ini, dapatlah dibuat kesimpulan bahawa penggunaan DLP sebagai media pengajaran memberi kesan yang lebih signifikan dalam wajah norma baharu Malaysia hari ini. Kajian ini turut mengutarakan beberapa cadangan yang dianggap relevan bagi pihak-pihak yang berhubungan dengan pendidikan. Cadangan juga diberikan untuk kajian lanjutan di masa hadapan. Cadangan tersebut dimaksudkan bagi penambahbaikan yang boleh diambil kira untuk kajian-kajian lanjutan di masa akan datang. Secara keseluruhannya, kajian ini diharapkan akan dapat membantu pihak yang berkaitan dalam usaha mencipta kecemerlangan guru dan murid dalam keadaan norma baharu.

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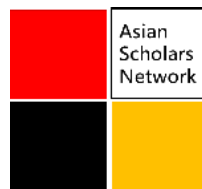
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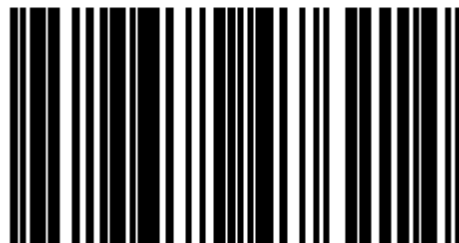


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