

**Studies in Applications of Psychology and  
Counseling in Asian Context**



# **Studies in Applications of Psychology and Counseling in Asian Context**

**Editor**

Dr. Aqeel Khan



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## Preface

In this book editor collected a set of best articles in the field of application of psychology and counseling in Asian context, which is presented in First International Conference on Applied Counseling and Psychology (ICACP-2017) held at Le Grandeur Palm Resort, Johor Bahru, Malaysia. Editor hopes this book will be useful to readers and it will generate interest among researchers in the area of applied psychology and counseling. Applied Psychology and Counseling is applied field of psychology, in which the emphasis is on using new approaches in scientific manner to solve practical problems of human life. Current book focuses on the four major themes such as *Psychological Health & Well-Being, Contemporary Issues & Challenges in Counselling & Psychology, Life Challenges & Coping and Leadership & Organizational Behavior*. The editor of this book wishes to express gratitude to all authors of their valuable contributions and thanks to ICACP-2017 editorial committee.

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**THEME**

**1**

**Psychological Health  
and  
Well-Being**



## Application of Positive Psychology Intervention Through Modern Technology To Reduce Examination Anxiety

*Babakura Mamman, Mustapha Grema Alhaji, Syed Nazmul Amin, Mohamed Nihra Said Mohd Haruzuan, Aqeel Khan and Zainudin Abu Bakar*

### 1.1 INTRODUCTION

Psychological research for decades has concentrated on human psychopathology and how people react to antagonistic human encounters. In complete contrast, the positive psychology movement tries to comprehend the constructive segments of life analysing the impact of human qualities, endeavouring, and individual accomplishments (Csikszentmihalyi & Seligman, 2000). According to Lyubomirsky and Layous (2013) Positive Psychology Interventions (PPI) are programs, initiatives of treatment techniques or activities with the purpose of nurturing positive sentiments, practices or perceptions. (Seligman, Steen, Park, & Peterson, 2005) PERMA model recommends that PPI's emphasize on positive feelings, positive engagement, positive connections, importance and achievement. Thus PPI differ from well-being ventures that aim to lesson or minimize negative components such as anti-bullying campaigns, quit-smoking projects, and depression

fighting programs and so on. (Keyes, Shmotkin, & Ryff, 2002) acknowledges that removal of negative factor open pathways to well-being. However he also points out that addition programs are needed to increase positive components of well-being. Positive psychology interventions are found to increase hope and strength in students and are believed to promote mental health of individuals (Cheavens, Feldman, Gum, Michael, & Snyder, 2006). Positive psychological intervention the likes of hope, resilience, gratitude are significant predictors of life satisfaction of students which facilitate to overcome problems such as examination anxiety of which gratitude is the strongest predictor (van den Brink & Kohler, 2011). The objectives present paper was to examine the application of positive psychology intervention of gratitude using web 2.0 to reduce the levels of examination anxiety among undergraduate student in UTM Skudai. Thus, this paper will test the following hypothesis: There are no statistically significant mean differences between pre-test and post-test of levels of examination anxiety and gratitude among college students.

## **1.2 LITERATURE REVIEW**

According to Snyder (1994), positive psychological intervention is best approach to manage with anxiety, worries, emotionality depression and many other related psychological and negative thoughts which in turn will help to reduce level of examination anxiety. Examination anxiety adversely affects the ability of students to take right decisions, particularly during examination, further pointed out that examination anxiety which have become pervasive challenges in the present educational institutions of learning (Kaya, Sari, Tolukan, & Gülle, 2014) Examination anxiety is characterized and affects mostly vulnerable students to low scores or result of examination and that can logically prevent a students from acquiring a prescribe grades for class promotional propose, the disarray of examination anxiety affects approximately 16% out of 30 students; furthermore there is a clear indications from literature that, immediate identification of examination anxiety and subsequent therapy can protect individual or students from future exams failure (Levine, Oanddasan, Premeam & Beranson, 2003).

Students who face examination may suffer from examination anxiety. Having in mind or foreseeing the consequences of inadequate performance appear to be exaggerated (Spilberger & Vagg, 1995). Therefore, literature points towards PPIs which focus on human strengths rather than weaknesses, as potential moderators in relation to examination anxiety and (Diener & Seligman, 2002). Positive psychological interventions like hope, resilience, and gratitude are significant predictors of life satisfaction of students which facilitate to overcome problems such as examination anxiety of which gratitude is the strongest predictor (Seligman et al., 2005).

The concept of positive psychology has many constructs: happiness, grit, optimism, flourishing, fear, and depression symptoms, and gratitude. Gratitude is one of the constructs in positive psychology that deals with how persons appreciate positive things in their environment. There are various interpretations of gratitude; many authors have defined the term differently. For example, Hasemeyer (2013) states that gratitude is conceived as the ability to enhance one's well-being through simple means, this implies that gratitude is a disposition of feeling thankful to people in life. According to Wood, Froh, and Geraghty (2010), gratitude could be seen as part of life that covers significant parts of individual persons' life orientation through which an individual notices and appreciates the positive things around him or her. If an individual student is grateful, they may tend to have the positive belief of interacting with their peers and appreciating the world around them. Also, gratitude according to (Emmons & McCullough, 2003) is a sense of interpersonal exchange that leads students to acknowledge benefits from their peers. Therefore, the concept of gratitude may seem to help students achieve a positive state and eventually helps in reducing depression and examination anxiety among students. Gratitude helps to establish and regulate relationships between factors like generousness, getting something for nothing, sensing of giving and receiving (Emmons & Stern, 2013).

Gratitude has the overwhelming support to students' life, it has the ability to reduce the level of examination anxiety and promotes happiness and well-being among students (Emmons & Stern, 2013), students usually are faced with activities such as



assignments, presentation, submission deadline, and reading for exams. These factors may trigger their level of anxiety, which might affect their academic performance. Thus, helping students to realize their gratitude may help on resolving their tension and anxiety. Wood et. al. (2010) opined that gratitude couple with examination anxiety may improve students' stable mind and ultimately reduce examination anxiety. Basically, factors such as social relationship and social facilitation behaviour are considered to be one of the strategic elements that give proper meaning to the concept of gratitude. The present paper covers the social aspect by using a one of the social media platforms to serve as intervention to determine undergraduate students' level of gratitude.

Recent technologies such as smartphones, social media platforms are considered to be very important tools in supporting positive psychology interventions among students. These technologies had been in use by many people including students. For instance, social media supports positive intervention (Sosik & Cosley, 2014) by increasing happiness through sharing picture, expression of feelings, status update, private message and comments of other people posting to express their current state of mine in various use of social media platforms. Social media like Facebook and Google form or Google+ could be used to support reflection in interpersonal relationship and express negative emotions that may allow an expression of negative emotion (Sosik & Cosley, 2014). Technology such a Facebook or Google forms allows it users to engage in a conversation by offering social support and contextual relevance in an individualized training. Similarly, technology intervention could create the room for social interaction among students and their teachers, it equally create the avenue of creativity through intervention assistance (Morris & Picard, 2014).

Positive technologies are strategies which involved the application of scientific approach to the use of technology to improve our personal experience toward achieving a particular goal ( Baños, Botella, Gaggioli, Riva, & Wiederhold, 2013). This could be achieved with the application of positive psychological intervention. In recent years a number of technology based intervention software were introduced, For example, iPhone have

introduced a Live Happy app which has activities such as doing kind things and savouring the day and this is only one of the many different applications available which intervenes in a number of issue affecting individual on a personal basis (Baños et. al., 2013). In order to reduce the level of anxiety among students, positive psychology interventions through modern technology can provide a solution. Researchers have developed model of behaviour intervention technology to resolve issues related to positive psychology. Behavior intervention technologies are now trending in promoting positive psychological intervention because there are exist many technologies out there, which are in use to remedy PPIs (Desmet & Sääksjärvi, 2016). These technologies are structured based on the number and duration of sessions and it's usually take places on weekly basis. This is done to track its users.

Behaviour intervention technologies comprise of the computers, tablet, sensors, video conferencing, instant message, telephone calls, web-based intervention, mobile technology, social media, virtual reality and artificial intelligent use to reduce anxiety or improve well-being among students (Mohr, Burns, Schueller, Clarke, & Klinkman, 2013; Mohr, Schueller, Montague, Burns, & Rashidi, 2014). The use of data, devices, and program will help recover individual person's behavioural pattern (Schueller, Muñoz, & Mohr, 2013), devices such as mobile phones, computers, and tablets helps teachers and counsellors to acquire useful information regarding students' psychological well-being.

Apart from the use of the above listed technologies there are supplementing avenues use to encourage positive psychological intervention. These may include the following: face-to-face, didactic content, homework exercise, teacher support, counsellor support, and peer networking (Schueller et. al., 2013). The school should provide these services together with behaviour intervention technologies to promote positive psychology among students. For example, the counselling unit has a responsibility to conduct a face-to-face intervention therapy to those who are newly recruited and subsequently follow it up with BIT. Similarly, teachers also have a significant role to play in delivering the intervention. They may wish to support the students by giving homework related to well-

being, this could be achieved by using some of the technologies for behaviour intervention. Furthermore, a peer networking from of intervention is found to be very essential in applying the intervention. However, it could be best if this networking is coupled with one of the social media platforms like Facebook. This may allow interaction and collaboration among peers. Technologies such as social and digital media could be applied in psychology intervention strategies (Schueller et. al., 2013).BIT can support collaboration between student, which could allow student to have a collective expertise and knowledge that is beyond expert's consultation.

### **1.3 METHODS**

The present paper used pre-test and post-test treatment group quasi experimental design. A non-random sample of thirty (30) undergraduate students from Universiti Teknologi Malaysia was selected to participate in this study.

#### **Participants**

A total of 30 undergraduate students, Males ( $n = 12$ , 40%) and females ( $n = 18$ , 60%), with age range 18 - 24 were samples for the study. The sample of the study was chosen using a non-random sampling technique. The participants were selected from Universiti Teknologi Malaysia, Skudai Johor the criteria of inclusion being- undergraduate students preparing to sit for semester final examinations and willing to participate in the study. In line with aforementioned, the exclusion criteria meant undergraduate students not sitting for exams were not included in this study.

#### **Instrument**

In order to collect the data from the participants, two instruments were used to measure students' levels of examination anxiety. The instrument for measuring student anxiety was developed by Speilberger (1978). The *Test Anxiety Inventory (TAI)* as named by Spielberger (1980) has reliability analysis of Cronbach *alpha* 0.70. The questionnaire consists of five point likert scales (Strongly agree, agree, undecided, disagree and strongly disagree). This

questionnaire consists of 20 questions items constitute under the scales which seek to determine student's level of examination anxiety. The second scale employed in this study was six (6) items gratitude questionnaire by McCullough, Emmons, and Tsang (2001). The scale on gratitude is a self-reported instrument developed to assess individual differences tendency to experience gratitude in everyday life. The scale consists of seven point likert scales (Strongly agree, agree, slightly agree undecided, slightly disagree, disagree and strongly disagree), with a Cronbach alpha level of the six items ranging from .76 to .84.

### **Data Analysis**

Data were analysed using the statistical package for social science (Version 23.0: SPSS/PASW Inc.). A descriptive statistic was conducted to describe the data. Furthermore a paired sample *t* test was used to compare pre-test and post-test means of examination anxiety and gratitude among undergraduate students in UTM. The data collected from the participants were expressed on mean (M), standard deviation (SD) while the level of significance adopted for this study was  $P < .05$ .

## **1.4 RESULTS**

The results of the study as shown in Table 1.1 indicate the analysis on mean difference between pre-test and post-test. The statistical analysis tool employed in this study was paired samples *t*-test. Results of the paired samples *t*-test revealed that undergraduate students level of examination anxiety differs before the students were exposed to the intervention ( $M = 24.93$ ,  $SD = 5.37$ ) and after taking the intervention ( $M = 31.23$ ,  $SD = 6.29$ ) at the .05 level of significance ( $t = -3.13$ ,  $df = 29$ ,  $n = 30$ ,  $p < .05$ , 95% confidence interval for mean difference 6.3). A two-tailed paired samples *t*-test shows that undergraduate students' gratitude level differs before and after the intervention. The results of the gratitude on pre-test indicates that ( $M = 51.93$ ,  $SD = 2.73$ ) and after students are exposed to the treatment ( $M = 86.18$ ,  $SD = 5.60$ ) at .05 level of significant ( $t = -34.11$ ,  $df = 29$ ,  $n = 30$ ,  $p < 0.05$ , 95% CI for mean difference -34.20).

**Table 1.1: Descriptive statistics and *t*-test results for examination anxiety and gratitude**

Outcome	Pre-test		Post-test		<i>n</i>	Differences	<i>T</i>	<i>df</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>				
Examination Anxiety	24.93	5.37	31.23	6.29	30	6.30	-3.13	29
Gratitude	51.93	2.73	83.13	5.60	30	-34.20	-34.11	29

\**p* < 0.05

The mean difference of the results from pre-test and post-test are shown in Table 1.1. It was found that there was statistically significant mean difference between pre-test and post-test in the levels of examination anxiety and gratitude ( $p < .05$ ).

## 1.5 DISCUSSION

The test was conducted one week prior to examination commencement of undergraduate students selected to participate in the study. The students were briefed with instructions to adopt the gratitude intervention designed for the study. After seeking their consent, they were co-opted to a Facebook group created by the researchers. The intervention meant that the students would individually and privately post a list 3 things they are grateful for on a daily basis for 1 consecutive week. Prior to the commencement of the Facebook posting, the students were asked to fill two questionnaires: one of the questionnaire is on examination anxiety and the other is on gratitude. Thus, after one week of intervention of gratitude expression through web 2.0 (Facebook), another round of questionnaire for the second time on examination anxiety and gratitude were filled and submitted to the researchers by the participants. The result of the study was subjected to statistic package for social sciences (SPSS) to compare the means of pre-test and post-test of the variables under study. The findings revealed that there is significant improvement on gratitude on the part of the students as well there is significant reduction in examination anxiety among undergraduate students in UTM ( $p < .05$  Table 1.1). The paired samples *t*-test results had indicated that there was a statistically significant mean difference between pre-test and

post-test on examination. Also, the result on gratitude showed that there was statistically significant mean difference between pre-test and post-test ( $p < .05$  Table 1.1). These findings show that after undergoing the intervention, the participants level of gratitude have risen as compare to before the intervention took place. Therefore, as level of gratitude improves the level of examination anxiety decreases. Thus, an increase in gratitude resulted in the reduction in level of examination anxiety among undergraduate student.

Moreover, the positive outcome of the results in this study is in agreement with findings in previous studies that there is statistically significant different between the mean score of pre-test and post-test of examination anxiety (Arjunan & Joseph, 2016; Kamble & Bhoslay, 2016; Reddy, Reddy, & Reddy, 2016; Tooransposhti, 2011; Ugodulunwa & Okolo, 2015; Velayudhan, Gayatridevi, & Bhattacharjee, 2010). Furthermore, the results on gratitude which shows positive significant relationship, which are in agreement with the present study includes (Froh, Kashdan, Ozimkowski, & Miller, 2009; Froh, Sefick, & Emmons, 2008; Seligman et. al., 2005; Toepfer, Cichy, & Peters, 2012). Conversely, other studies results shown that there no significant difference in the pre-test and post-test (Kaya et. al., 2014) and that of gratitude (Hassan, 2010; Hoffman, 2015; Jalali, Moussavi, Yazdi, & Fadardi, 2014). Further investigation on this area should be carried out with more sample and a full pledge quasi experimental study that has control and experimental groups.

## 1.6 CONCLUSION

In conclusion, therefore, if students' level of gratitude increases, their levels of examination anxiety reduce and this may assure improvement in students' academic performance.

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# Using Video Modeling Module to Increase Social Interaction and Emotional Intelligence in Children with ASD

*Farrah Syuhaida Bt Ismail and Yeo Kee Jiar*

## 2.1 INTRODUCTION

Autism spectrum disorder (ASD) is a developmental disorder and it is typically diagnosed during early childhood and always affects an ability of the students to interact and communicate with other person. ASD is described as a set of behaviors and the “spectrum condition” in ASD children make them different compare to normal children. It is always diagnosed before the age of three, due to their profound communication delays (Solomon, Goodlin-Jones, & Andres, 2004). Children with ASD have fewer interaction with friends, make and accept less initiations and spend their time playing alone compare playing with their friends (Nikopoulos & Keenan, 2007). Other symptoms are lack of reciprocal social interaction skills, difficulty making eye contact or holding a conversation, problems in communication skills and also repetitive and stereotyped patterns of activities, interests and behaviour (American Psychiatric Association, 1994).

Social interaction and friendship is important for healthy human development. From social interaction, people can express their emotions and share their problems with other person and it has a beneficial outcome for human health. Children with ASD do not have interest to join their peers' activities because they do not know how to start conversation with other person (Kokina & Kern, 2010). The inability to get engage with social situations is one of the important factors of the problems. They also avoid attending to public or social event (Prior & Ozonoff, 1998). Less involvement in the social aspect of school can cause an inability to form friendships. Lack of friendships can cause anxiety problems and depression and finally it will affect their emotional intelligence.

Nowadays, there are many studies in the area of social interaction and emotional intelligence for children with ASD. Intervention techniques in the literature increased dramatically, for example applied behaviour analysis (ABA). Besides, there are also naturalistic techniques, likes imitation, parent training, peer training, social skills groups, visual supports and video modeling (Reichow & Volkmar, 2010). Video modeling is defined as watching the target behaviour through video model in order to learn the behaviour or skills. According to Crozier & Tincani (2005), Kokina & Kern (2010) and Schneider & Goldstein (2010), majority of children with ASD are visual learners, so visual instruction and information is very important for them. Children with ASD usually get benefits from visually cued instruction (Quill, 1997) and easy to process visual information compare to verbal information based on many studies using standardized intelligence tests (DeMyer et. al., 1974; Shah & Frith, 1983; Happe 1994a; Freeman et. al., 1985; Asarnow et. al., 1987; Lincoln et. al., 1988).

According to Charlop-Christy, Le & Freeman (2000), video modeling is the best strategy for ASD children because it give benefits in visual processing, reduces social anxiety, draws attention to relevant stimuli, and is basically motivating (Charlop-Christy, Le & Freeman, 2000). It is described as the instances of modeling whereas the model is not a live one, but recorded video that aims to change existing behaviors or learn new behaviour (Grant & Evans, 1994). After watching the model's behaviour from the videotaped,

then it is hoped that the children will show that specific behaviour in general settings (Haring, Kennedy, Adams, & Pitts-Conway, 1987; Morgan & Salzberg, 1992). Video modeling as one of the treatment to ASD children has been effective to increase pre-school children's social interaction and social play (Ballard & Crooks, 1984). As mentioned above, video modeling combines between visual cues and modeling. The combination between visual cues and modeling in instruction builds on the strengths of children with ASD. According to Bellini and Akullian (2007), video modeling is also suitable to ASD children who are visual learners.

Video modeling may also effectively help children with autism to learn from modeled behaviours and to concentrate on these behaviors in a way that they would not do if provided with live models (Charlop & Milstein, 1989). According to Van der Geest, Kemmer, Camfferman, Verbaten, & Van Engeland (2002), research shows that children with ASD more attracted to human figure than neutral objects when presented in pictures even though they may have problems in orienting to social stimuli (Dawson, Matson, & Cherry, 1998) or looking at people in real situations (Swettenham et. al., 1998).

Past studies showed that video modeling is a teaching methodology that can produce fast acquisition of a variety of skills in children with ASD (Buggery, 2005; MacDonald et. al, 2005) and typically developing children (Boudreau and D'Entremont, 2010). Specific skills successfully addressed in research include social skills (Bellini, Akullian, & Hopf, 2007), play behavior (Reagon et. al., 2006), conversation skills (Wert & Neisworth, 2003), and self-help skills (e.g., Shipley-Benamou, Lutzker, & Taubman, 2002). Charlop-Christy, Le, and Freeman (2000) also agree that video modeling is more effective compare to vivo modeling to teach children with ASD. Video and vivo modeling interventions were planned for five children ages 7-11 with ASD and compared the results. At the end of the intervention, video modeling facilitated faster acquisition of skills to four out of five children. All children were able to master the skills they learned from video modeling, whereas there are no children were able to master the skills taught using vivo modeling.

Hence, we can conclude that in order to improve social interaction and emotional intelligence among ASD children, appropriate training and well planned treatment strategies must be given which aims to increase social interaction and emotional intelligence among ASD children. The main objective of this study is to determine the effectiveness of video modeling module by looking at the rankings of social interaction and emotional intelligence instrument scores before and after the implementation of video modeling module in treatment groups.

## **2.2 RESEARCH METHOD**

This study was based on quasi-experimental research design using pre-test and post-test method (Creswell, 2007; Campbell & Stanley, 1963). To identify the impact of video modeling module, a quantitative approach was used in order to increase social interaction and emotional intelligence among ASD children. Two groups of ASD children involved in this study, one from experimental group and another one from control group. Teachers from experimental group used the video modeling module in the teaching and learning process to increase social interaction and emotional intelligence among ASD children while teachers from control group just used the usual learning activity.

### **Participant**

A group of 7-11 years ASD children from primary school around Johor Bahru were gathered as the sample for this study. The study involved 40 ASD children from five primary schools under the Ministry of Education. Twenty ASD children were selected as an experimental group while the other twenty ASD children were selected as the control group. The twenty ASD children from the experimental group were selected based on their cooperation, willingness, and encouragement given by the special education teachers to the researcher during conducting the research.

### **Research Instruments**

A set of questionnaires was developed to measure social interaction and emotional intelligence problems among ASD children.

Researcher was conducted pre-test to both the experimental and control groups before ASD children from the experimental group were completed all the activities in the video modeling module. After the teachers have implemented the video modeling module for three months in special education class, the post-test was conducted. This is to test the effectiveness of the module in order to increase social interaction and emotional intelligence among ASD children.

This questionnaire consists of 40 question items. The question items were developed based on two variables, communication and social connection by referring Theory of Mind put forward by Simon Baron-Cohen, Alan Leslie, dan Uta Frith (1985) and also based on **The Four Branches of Emotional Intelligence** basic concepts put forward by Mayer and Salovey (1997), namely **Perceiving Emotions, Facilitating Emotions, Understanding Emotions and Managing Emotions**. The question items have been reviewed by four experts who were qualified in psychology and special education field to ensure the content validity of the questionnaire. The four experts were chosen based on their knowledge and experience acquired and also their willingness to guide the researcher improves the question items. To test the reliability of the test, a pilot study was carried out to 30 special education teachers from 7 schools who did not involve in the actual study.

## Procedure

A 45-minute to one hour video modeling module is being conducted for 12 weeks on experimental group while the control group did not receive any training. For the first week, teachers from both experimental and control group answered the similar pre-test based on their students' social interaction and emotional intelligence problems. After that, teachers from experimental group conducted the video modeling module to the ASD children. The activities in the module were compiled based on 10 sub modules which adapted from the 10 video modeling. These activities complete with several graphic elements and interactive activities in order to increase interest and attention of ASD children for example, activities likes singing, colouring and incooperative play mode, which hope to

increase social interaction and emotional intelligence among ASD children. After twelve weeks, the teachers from both experimental and control group answered the similar post-test on their students' social interaction and emotional intelligence problems.

## Result

In this section, descriptive statistics test of social interaction and emotional intelligence scores before and after the implementation of video modeling module in experimental and control groups are presented in Table 2.1. These scores showed the difference between the pre-test and post-test results.

**Table 2.1: Descriptive Statistic for Video Modeling Module Test between Experimental and Control Group**

<i>Subtests</i>	<i>Group</i>	<i>Time</i>	<i>Mean</i>	<i>Minimum</i>	<i>Maximum</i>
Social Interaction	Eksperimental	Pre	49.50	21.00	71.00
		Post	55.55	29.00	80.00
	Control	Pre	34.05	24.00	47.00
		Post	34.90	25.00	48.00
Emotional Intelligence	Eksperimental	Pre	48.40	25.00	73.00
		Post	55.00	32.00	76.00
	Control	Pre	37.00	27.00	47.00
		Post	38.20	28.00	47.00

The results of descriptive Statistic test analysis indicated that there were positive changes in all subtests of Video Modeling Module for experimental group after the intervention. The social interaction subtests for experimental group obtained the pre-test mean score of 49.50 and post-test mean score of 55.55 The increase in the mean score was 6.05. While the emotional intelligence subtests for experimental group obtained the pre-test mean score of 48.40 and post-test mean score of 55.00. The increase in the mean score was 6.6.

For social interaction subtests for control group, the mean score for pre test was 34.05 and the post-test mean score was 34.90. The control group had increased 0.5 mean score compared to the experimental group 6.05. While the emotional intelligence subtests for control group obtained the pre-test mean score of 37.0 and post-test mean score of 38.20. The mean score for control group increased 1.20 compared to the experimental group 6.6.

**Table 2.2: Min Score and Standard Deviation For the Social Interaction Subtest between Experimental Group and Control Group**

Group	Total	Pre-Test		Post Test	
		Social Interaction		Social Interaction	
		Mean	Standard Deviation	Mean	Standard Deviation
Eksperimental	20	49.50	12.44	55.55	11.43
Control	20	34.05	6.66	34.90	6.89

Based on Table 2.2, the results of mean score for social interaction subtest in pre-test and post-test for the experimental group were 49.50 and 55.55. The mean scores for social interaction subtest in the pre-test and the mean score for post-test for the control group were 34.05 and 34.90. The result showed an increase in the post-test compare to pre-test based on the mean scores of both experimental and control groups. On the contrary, the experimental group showed a difference in the mean score value (55.55) as compared to the control group (34.90) after the implementation of video modeling module. So, from the result, we can see that ASD children ( $n = 40$ ), who receive teaching using video modeling module acquired significantly higher inferential score for social interaction subtest ( $M = 55.55$ ,  $SD = 11.437$ ,  $n = 20$ ) than ASD children who followed the usual teaching process ( $M = 34.90$ ,  $SD = 6.9$ ,  $n = 20$ ).

**Table 2.3: Min Score and Standard Deviation for the Emotional Intelligence Subtest between Experimental Group and Control Group**

Group	Total	Pre-Test		Post Test	
		Emotional Intelligence		Emotional Intelligence	
		Mean	Standard Deviation	Mean	Standard Deviation
Eksperimental	20	48.40	10.97	55.00	11.12
Control	20	37.00	5.27	38.20	4.91

Based on Table 2.3 , the results of mean score for emotional intelligence subtest in pre-test and post-test for the experimental group were 48.40 and 55.00. The mean scores for emotional intelligence subtest in the pre-test and the mean score for post-test for the control group were 37.00 and 38.20. The result showed an increase in the post-test compare to pre-test based on the mean



scores of both experimental and control groups. On the contrary, the experimental group showed a difference in the mean score value (55.55) as compared to the control group (38.20) after the implementation of video modeling module. So, from the result, we can see that ASD children ( $n = 40$ ), who receive teaching using video modeling module acquired significantly higher inferential score for emotional intelligence subtest ( $M = 55.00$ ,  $SD = 11.12$ ,  $n = 20$ ) than ASD children who followed the usual teaching process ( $M = 38.20$ ,  $SD = 4.905$ ,  $n = 20$ ).

**Table 2.4: T-test Results for Video Modeling Module Subtests**

Group	Value-t	Degree of Freedom (df)	Value p
Experimental	-4.828	38	.000
Control	-7.018	38	.000

Based on Table 2.4, results of paired samples *t*-test showed significant differences in the experimental group ( $t = 4.828$ ,  $df = 38$ ,  $p < 0.05$ ) and also in the control group ( $t = -7.018$ ,  $df = 38$ ,  $p < 0.05$ ). This finding showed that the implementation of video modeling module increase the social interaction and emotional intelligence among ASD children.

So, from the analysis of paired samples *t*-test, the experimental group has gained a significant and higher increment in the mean scores compare to control group. The findings also showed that the use of video modeling module by the experimental group increase the social interaction and emotional intelligence among ASD children

### 2.3 DISCUSSION AND CONCLUSION

This study showed the effectiveness of video modeling module for children with ASD. It is shown by looking at the rankings of social interaction and emotional intelligence scores before and after the implementation in experimental (using the video modeling module) and control groups (regular teaching) in children with ASD. The findings showed that there are positive changes in all subtests of social interaction and emotional intelligence for experimental group after the implementation of video modeling module. Based on the

result from this study, we can conclude that there was a significant increase in social interaction and emotional intelligence among ASD children. It can be explained that video modeling is a promising practice that we could consider implementing in children with ASD. Video modeling also can describe as an effective intervention strategy to improve social interaction and emotional intelligence of children with ASD.

This finding is supported by Bellini and Akullian (2007), who concluded in a meta-analysis of 23 studies published between 1987 and 2005, that video modeling could be effective in social-communication skills, functional skills, and behavioral functioning. This finding also reinforces the findings of a study conducted by Bellini & Akullian (2007) who explained that video modeling is an effective strategy to decrease maladaptive behaviors including aggression and tantrums and also increasing self-monitoring skills, emotional regulation and adaptive behaviour.

In a nutshell, ASD children of the treatment group in this study showed positive significant changes in social interaction and emotional intelligence instrument after the implementation of video modeling module. The findings proved that the video modeling module could significantly increase social interaction and emotional intelligence in children with autism. The previous teaching skills for ASD children which were based on verbal information were transformed to visual information which more fun. For future study, in order to see the effectiveness of this video modeling module; it is best to do a study on other ASD children using this module.

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## The Relationship Between Parenting Styles with Self-Esteem and Resilience Teenages from a Single Mother Family

*Hairul Hazizi Hamzah, Roslee Ahmad and Aqeel Khan*

### 3.1 INTRODUCTION

A family institution is a very vital asset towards building a first-class society. The Malaysian 9th plan states that the manifestation of a harmony and dynamic family is able to product excellent future generation. The strength of a happy family depends on the understanding on the marriage bond and the sharing of affectionate values among family (Sufean, 2005). Jabatan Kemajuan Islam Malaysia (JAKIM) states that a family which is built through marriage is also a sacred bond. The cooperation between husband and wife will strengthen the tie and the affectionate feeling which becomes the goal of every marriage. The very foundation of a happy marriage is love and compassion.

A married couple needs to understand their responsibilities and roles in the relationship. Marriage brings additional responsibilities into the life. Each family member has his or her own roles and responsibilities in the family. The husband is responsible towards

his wife as well as his children. The wife is responsible towards her husband and her children.

The husband is regarded as the head of the family. The husband is responsible to protect, teach, provide for the family and prepare a safe haven to the wife and the children. The responsibilities of a husband are important in building a happy and harmonious family. The husband has to teach the wife with care. Rasulallah SAW asserted that wives are a trust from Allah. The trust must be protected and he shall be responsible upon the family trusted upon him in front of Allah SWT. Meanwhile the obligation of a wife is to attend the husband compassionately, to manage house chores, and to groom herself for her husband so that the husband feels entertained being by her side. Wives are obliged to obey to her husbands. It is also obliged on wives to protect her dignity at all time other than protecting the good image of her husband. These explicate the purity of the marriage bond according to the Islamic perspective. (JAKIM)

Zaini et. al (2009) stated that the wisdom behind marriage according to Islam are as follows. Firstly, marriage takes care of ones health. A married couple are hindered from being involved in pre-marital sexual relationship which is the main factor for diseases such as Aids and Syphilis. The second wisdom is it nurtures the feeling of love and responsibility between husband and wife. The third wisdom is that the feeling of affection and sexual desire can be fulfilled through a lawfully way. The fourth wisdom is that it builds relationship and brotherhood between the families of the spouse. Other than that, marriage is also a life timesharing of happiness and hardships. The offsprings from a marriage are able to bear the feeling of amity and thus bringing bliss to the family.

Nevertheless a marriage may also ends with a divorce. In Malaysia, the issue of divorce is associated with the social changes and the family condition which affects the number of families supported by single mothers. A divorced mother means that a married woman with children, but was separated and disunited (for a long period of time) and the marriage tie with the former husband is detached (Benokraitis, 1996). The most common term being used in the community to represent a separated mother

is a single mother or single parent family. A single mother is categorized into two which are single mother from a divorce and single mother from decease (Rohaty & Muhammad Rais, 2003). On the other hand the single mothers are categorized into some terms such as (1) a divorcee for a woman who is separated from her former husband (2) a widow for woman whose husband has deceased (3) a woman who is left without any physical or emotional provision (4) an unmarried woman who adopts a child (Hew, 2003).

A research carried out in collaboration with Persatuan Ibu Tunggal Negeri Sembilan stated that single mother refers to; (1) divorced with the husband, (2) deceased husband and thus the mother has to continue to provide for the family (3) left hanging (the husband failed to provide physically and emotionally) or left without provision, and (4) legally divorced (Rohaty & Muhammad Rais, 2003). The variety of terms used in accordance with single mother depicts that the separation issue is increasingly gaining the attention from the local community. The problem faced by single mothers has also raised concern from the government. According to Datin Paduka Chew Mei Fun who is also the Deputy Minister of Women, Family and Community Development in 2009, several issues which are being observed by the ministry are related to physical and mental health of single mothers, how they earn for the family? And also legislative issues (Berita Harian, 18 Mei 2009). Previous research has found that single mothers face difficulty in securing a permanent employment (Syarifah, 2003). This finding is supported by Zarina (2009) who claimed that single mothers face three main problems which are respectively difficulty in source of income, difficulty in raising the children and residential problem.

Research has pointed that the relationship between single mothers with the children is at an average level and lack of affection (Nor Aion, 1997). Children from a single mother family are usually seen as problematic in dealing with daily life (Norhayati, 1994) Teenagers who come from a troubled family are viewed as problematic. A study carried out in Sekolah Tunas Bakti, Sungai Lereh, Melaka has shown that 41% of the sample taken from 86 respondents of the study claimed that they were neglected by

their parents (Zainudin, 2011). Meanwhile the children who were raised in a single mother family has shown a high self-esteem with a low resilience (Zarinah, 2001). Teenagers who have low self-esteem and resilience are linked with delinquency, aggressiveness, defiance and ill manners.

Self-esteem and high resilience are the key factor to the social problems of teenagers nowadays. A high self-esteem is seen as having a fixed respect and confidence, possessing self-love, and also love towards other people. On the other hand, a low self-esteem is termed as individuals with low self confidence, distrust of oneself, and often unsatisfied towards oneself (Rosenberg, 1965). Meanwhile resilience is defined as the power or the ability to overcome pain, pressure, changes or hardships (Bischoe, 1994). With exposure and explanation regarding the challenges faced by single mother family and their teenage children. Therefore, the research on the relationship of parenting styles of a single mother with self-esteem and teenage resilience from a divorced Malay family has to be carried out.

### **3.2 STATEMENT OF PROBLEM**

A divorce leaves effects on the family hood relationship, parenting styles, psychological health, emotion as well as teenage behaviours. Teenagers from a separated family are also observed to experience depression, academic failure, low self-esteem, lack of resilience and possessing antisocial behaviours (Rozumah et. al. 2002; Hart et. al. 2003). Hamidah et. Al (2006) stated that teenagers from a single mother of a divorced family face risk of behavioural and emotional problems due to lack of observation and negligence of the mother.

Parenting style plays an essential role in developing self appreciation and positive resilience among children. Previous studies have found that the parenting styles of problematic father or mother affects the elf appreciation of the children in school (Amato &Keith, 1991). Nonetheless different parenting styles can also cause different behaviours among children depending on the resilience level of the children (Abd Rahim, 2006). Zarinah(2001)



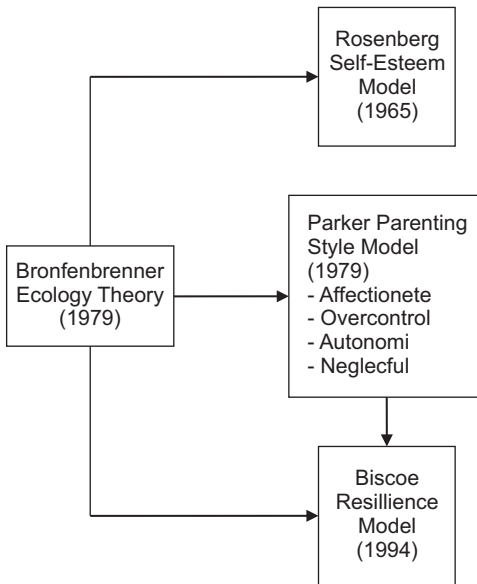
asserted that the findings of her study pointed that around half of the children which is 44.3% from a family is risked to illustrate a good self-esteem and resilience level due to a positive parenting style. According to Parker (1979) a child who is nurtured with affection (affectionate constraint) will grow up to be a disciplined person, possessing a respectable leadership quality, strict but at the same time displaying tolerance in life. Meanwhile a child who was raised with negligence (neglectful parenting) will grow up to be ill mannered, practicing unhealthy lifestyle and being disrespectful towards elderly.

A low self-esteem and resilience is also identified as the main factor in a single mother family. Farineau et. al. (2013) defined self-esteem as a personal feeling and acceptance of oneself. A low self-esteem is linked to mental conditions such as depression and hypertension. Boden et. al. (2008) claimed that low self-esteem in a teenager can cause satisfaction issues in the future relationship. Shin (2010) found that a teenage with a high resilience can easily adapt with life crisis such as the death of family members or a divorce. A family with a high resilience can also overcome challenges and pressures in life.

Based on the above statements, it can be concluded that parenting styles of single mothers are very crucial in developing self-esteem and resilience among teenagers. Meanwhile self-esteem and resilience are very important for the teenagers themselves in facing life challenges. Hence what are the parenting styles practiced by single mothers in this study? Does self-esteem and resilience exist among teenagers? Are there any relationship between parenting styles of single mothers with self-esteem and resilience among teenagers? Are there any difference among parenting styles, self-esteem and teenage resilience according to gender and residential area among separated Malay families? Due to these reasons, the researcher is interested to determine the type of parenting style which is being practiced by single mothers, the self-esteem level and teenage resilience among single mother families. Other than that, the study is also set to find out the relationship between parenting styles with self-esteem and teenage resilience.

### 3.3 THEORETICAL FRAMEWORK

The study is carried out according on the theories and models which act as the foundation for parenting styles, self-esteem and resilience. The selected theories and models were chosen based on their importance in building the instrument of the study. Based on this importance, several related theories and models are explained under this section. Bronfen brenner Ecology Theory (1979), Parker Parenting Styles Model (1979), Rosenberg Self-Esteem Model (1965) and Biscoe Resilience Model (1994) were adopted as the basic models in developing the instruments of the study and identifying the relationship between the variables of the study (refer to Figure 3.1).



**Figure 3.1: Research Framework**

The basic theory adopted in this study is Bronfen brenner Ecology Theory (1979) his theory explains the relationship between individual developments with the surrounding in details. There are 5 ecological system explained which are respectively Micro System, Mesosystem, Exosystem, Macrosystem and Chronosystem. Nevertheless only mesosystem is linked with this study. Mesosystem is a life cycle which is closely related with

one living things from another. In the context of this study, the researcher is interested to prove the prospect of parenting styles to exert effects on self-esteem and resilience among teenagers. In this study parenting styles are referred from the Parker Parenting Styles Model (1979). This parenting model states that there are 4 parenting style which is being practiced by parents which are affectionate parenting, overcontrol parenting, autonomi parenting and neglectful parenting. As for self-esteem, the model adopted is Rosenberg Self-Esteem Model(1965). Meanwhile for resilience the model adopted is from the Biscoe Resilience Model (1994).

### **3.4 PREVIOUS RESEARCH**

Previous research has proven that parenting styles are very crucial in building self-confidence and self-defense among teenagers. Salasilah (2011) in her study entitled 'Parenting Style which affects the construction of students' personality' has studied sample from Sekolah Menengah Kebangsaan Dato' Sulaiman, Batu Pahat which involved 350students. The study which utilised the Baumrind Parenting Style (1989) has found that 294 or 97.4% of parents from the school practiced autoritatif educating style. The autoritatifeducating style displayed that the parents from the school are responsible and loving. Habibah dan Tan (2009) in their research entitled "Relationship between Perceived and Maternal Parenting style and student academic achievement in selected school" carried out into two secondary schools in Terengganu has involved a number of 247 students. Using Baumrind Parenting Style (1989) also depicted that a majority of parents from the school practiced autoritative parenting style.

Farineur, Wajciak and McWay (2011) in their study showed that teenagers who were raised by biological mothers possess higher self-esteem as compared to teenagers who were raised by foster mothers. On the other hand, female teenagers were found to be closer to the mother compared to male teenagers. The study has also indicated that teenagers who lived with the biological mother were more protected from social delinquency compared to the teenagers who stayed with foster families.

Shin, Heeseung, Kim and Kim (2010) in their research identified 3 differences among the guardians of a divorced family. Focus was given on the mother, father and grandfather or grandmother as the guardian and was compared with the teenager's perception and resilience. The second focus of the study was in identifying the predictor factor in the teenager's family resilience. 178 teenagers from divorced families in Korea were selected as the ample of the research. Resilience was measured according to "Family Hardeness Index". The findings of the study have shown that teenagers who live with a single mother possess higher resilience compared to teenagers who lived with grandfathers, grandmothers or their fathers.

### **3.5 RESEARCH QUESTIONS**

1. What are the parenting styles of single mothers from separated Malay families in the district of Kulai?
2. What is the self-esteem status and teenage resilience in single mother families?
3. Is there a relationship between parenting styles of single mothers with self appreciation among teenagers?
4. Is there a relationship between parenting styles of single mothers with teenage resilience?

### **3.6 RESEARCH METHODOLOGY**

The research is a correlation type. It's aimed at clarifying the nature or the relationship between the variables in the study Najib (2003). This research will analyse data which is gathered and then provide explanation in table forms as collected from the questionnaire. All of the findings gathered will be categorized according to the determined aspects through quantitative method. Questionnaire is the instrument which will be utilised for data collection. According to Siegel (1998), the use of questionnaire is suitable in measuring probability, behaviours, perception and as such. Questionnaire is considered as the most systematic and accurate measure to collect data in doing research.

The research population includes every Form 1 and Form 2 students from the district of Kulai who comes from a single mother of a separated Malay family background. Teenagers within the age range of 13 to 14 years old were selected because according to Salkind in Sapora (2004) teenagers at this level start to think in an abstract manner regarding freedom and just other than holding firmly to their intrinsic qualities.

The instrument of the study is the measures being utilized in carrying out the research. In this research, the instrument being used was in the form of questionnaires. The choice of questionnaire was aimed at identifying the parenting style of single mothers as well as the self-esteem and resilience of teenagers in the family. There were three questionnaires which have been adapted in this research which are respectively "Parental Bonding Instrument", "Rosenberg Self-Esteem Scale" and "Children Resilient Attitude Scale". These instruments were chosen based on the literature review of previous studies, theoretical frameworks in parenting styles, self-esteem and resilience being studied by the researcher. The reliability value of the overall adapted questionnaires is 0.918. For validity purpose, the opinion of two experts in the field of counselling and psychology were employed.

### 3.7 RESEARCH FINDINGS

Data was analysed using descriptive method to display the parenting style of single mother in the district of Kulai while Pearson Correlation was used to analyse the relationship between parenting styles with self-esteem and teenage resilience.

**Table 3.1: The parenting styles of single mothers in the district of Kulai**

<i>Parenting Style</i>	<i>High</i>	<i>Intermediate</i>	<i>Low</i>	<i>Mean</i>	<i>Standard Deviation</i>
Affectionate	67 (41.6%)	69 (42.9%)	25 (15.5%)	1.908	0.595
Autonomy	50 (31.1%)	82 (50.9%)	29 (18%)	1.772	0.646
Overcontrol	26 (16.2%)	87 (54%)	48 (29.8%)	1.409	0.612
Neglectful	9 (5.6%)	58 (36%)	94 (58.4%)	1.047	0.634

The results of the analysis illustrated that affectionate parenting is the most practiced style among single mothers in the district of Kulai. This condition can be observed clearly from Table 3.1 which displays the highest Mean result with 1.908 is the affectionate parenting style.

**Table 3.2: The relationship between parenting styles with self-esteem and teenage resilience**

<i>Parenting Style</i>	<i>Self-Esteem</i>	<i>Resilience</i>
Affectionate	.000	.000
Autonomy	.005	.079
Overcontrol	.000	.000
Neglectful	.000	.000
N	161	161

Significant level is at  $P < 0.05$

The analysis findings illustrated that there is a significant relationship between single mother's parenting styles of affectionate, overcontrol, autonomy and neglectful with teenagers' self-esteem. For the affectionate and autonomy parenting, the relationships which exist are positive. On the other hand, for overcontrol and neglectful parenting, the relationships which exist are negative. As for the relationship between parenting styles and resilience, the findings of the study have shown that parenting styles of affectionate, autonomy and neglectful have significant relationship with resilience. Meanwhile for the parenting style of overcontrol, it is found that there is no significant relationship with teenagers' resilience where  $P = 0.0790 > 0.05$ . The relationship which exists for the affectionate and autonomy parenting illustrated a positive relationship while for neglectful parenting; findings of the study illustrated a negative relationship.

### 3.8 DISCUSSION

Based on the findings of the study, it is found that the most dominant parenting styles among single mothers in the district of Kulai are affectionate and autonomy parenting. The Mean for the parenting style of affectionate is 1.908 while the Mean for

autonomy parenting is 1.772. Both parenting styles are of high quality and positive. High quality and positive parenting are crucial in developing teenagers' socio-emotion and identity. The findings of this study agree with the findings of Syaibatul Islamiah (2012) in which she stated that a majority of single mothers in her study practiced high quality parenting which are democratic and affectionate. These findings also agree with the findings of Zarina (2009) where she found that a majority of single mothers who were involved in her study had displayed high quality parenting styles. Other than that, these findings are also similar to the findings of Salasilah (2011) and Habibah and Tan (2009). The results of these researchers have further strengthened the findings of this study that the parenting styles of affectionate and autonomy are most favoured and positive.

Besides that, the findings of this study have shown that teenagers who were raised with affectionate and autonomy parenting possess high self-esteem and resilience. The positive relationship displayed from affectionate and autonomy parenting with self-esteem and resilience portrayed higher practice of these parenting styles by single mothers result in higher the self-esteem and resilience among teenagers. Meanwhile, the negative relationship displayed from the overcontrol and neglectful parenting portrayed that higher practice of these parenting styles by single mothers result in lower self-esteem and resilience. These findings are similar with the findings of Zarina (2009); Farineur et. al. (2011) and Sung et. al. (2010). Farineau et. al. (2013) asserted that teenagers who have a good relationship with their mothers will be able to develop a high and positive self-esteem. On the other hand, Zarina (2009) stated that teenagers who received attention and affection as well as being given the opportunity to become independent possess a higher self-esteem compared to teenagers who were strictly controlled from being self-dependent. Other than that, the findings of Sung et. al. (2010) demonstrated that single mothers with high quality parenting styles aid in shaping teenagers' high and positive resilience. These reported findings serve to strengthen the results of this study that there is a significant relationship between parenting styles with self-esteem and teenage resilience from a single mother family.

Based on the above discussion, it can be concluded that the parenting styles of single mothers in the district of Kulai, Johor are affectionate and autonomy. This finding illustrates that separated single mothers from Kulai possess positive and high quality of parenting styles. Positive and high quality parenting styles are very important in ensuring teenagers well-balanced and positive development. The study has also found that there is a significant relationship between the parenting styles of single mothers towards self-esteem and resilience among their teenagers. This illustrates that parenting styles are vital in strengthening the level of self-esteem as well as resilience among their teenagers to become more positive.

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## Personality Traits and Reading Habits Towards English Among 1<sup>st</sup> Semester Students

*Latipah Nordin, Noor Zainab Abdul Razak  
and Farah Idayu Mohd Salleh*

### 4.1 INTRODUCTION

Reading is vital in order to be a good reader and at university, reading is the most important skill to excel (Carrell & Grabe, 2002; Bashir and Mattoo, 2012). Nevertheless, according to a survey conducted by the National Library of Malaysia in 1982, Malaysians were recorded to read only two pages in average. However, in 1992, this has progressed to two books per year. With regards to language proficiency, in 2010, it was discovered that the civil engineering students in Malaysian Polytechnic have low proficiency of using English language across their type of workplace or level of study (Mohd Yasin, Wan Mohd Shaupil, Mukhtar, Abd Ghani & Rashid, 2010). This is supported by Pandian (1997) which discovered that 80.1% of university students in Malaysia were reluctant readers on English language materials, and in relation to reading habit, Brown (2000), and Carrel et. al., (1996) emphasised that personality greatly influences the success of second language learning. Thus, this study

looks into personality traits of the respondents who were the first semester students of bachelor program at Universiti Kuala Lumpur – MITEC. Secondly, it looks into learners reading habits, and the third objective is to identify any relationship between personality traits and reading habits.

## 4.2 LITERATURE REVIEW

Reading is a process for reader to understand message from the writer (Smith & Robinson, 1980). Since people read for different purpose, reading does not require reader to understand everything in the text (Williams, 1984). For Palani (2012), reading is a process of thinking, evaluating, judging, imagining, reasoning and problem solving. Pandian (1997) and Mokatsi (2005) mentioned that reading is one of the most important components in learning language and it is an essential tool for lifelong learning for all learners. Furthermore, reading develops good writing styles, adequate vocabulary and advanced grammar and becomes excellent spellers (Krashen, 1993). It has been proven through a study by Kirsch and Guthrie (1984) which found that reading contributes significantly to job success, career development, and ability to respond to change.

### Reading Habit

By reading, an individual can become matured and be more knowledgeable (Kim & Anderson, 2011), and reader will be able to develop understanding on other people beliefs (Cook, Halleran & O'Brien, 1998). On top of that, having good reading habit is important as it is necessary to be language proficient user (Grabe & Stoller, 1997).

Gallik (1999) discovers significant and positive relationship between students' cumulative grade-point average and time spent reading for pleasure during vacations. In a survey which involved 1500 adults in England, women are more frequent readers than men across age group (Gleed, 2013). In addition, Arabs in United Arab Emirates highly appreciated reading, and they embrace various channel of reading, either printed or online. They also read both languages, English and Arabic (Wisichenbart, 2011). Significant finding between gender was also discovered in a study which

involved middle school-sixth, seventh, and eighth grade-students in a metropolitan, public school located in Atlanta, Georgia (Higginbotham, 1999). In local context, Annamalai and Muniandy (2013) found that students in Malaysian Polytechnic have low interest in reading and they did not enjoy reading as compared to doing other activities related to technology. The study involved 119 polytechnic students from Engineering and Business department in selected Polytechnics. Another study by Kaur and Thiyagarajah (1999) revealed that many students prefer spending as much as 3-5 hours per week in reading, which most of the time spent was dedicated for literary works (69.8%), while the balance was for newspaper (28.6%) and novels (25.4%). As compared to another study, Nor Shahriza and Amelia (2007) revealed that students spent 7 to 9 hours for reading, dedicated for academic work, newspaper and websites.

### **Personality Traits and Reading Habit**

Personality is behaviour, attitude, beliefs, thoughts, actions and feelings which differ than other person (Richards and Schmidt, 2000). Ehrman and Oxford (1990) established four domains of personality traits which are extroverted vs. introverted; intuitive-random vs. sensing-sequential; thinking vs. feeling; and closure-oriented/judging vs. open/perceiving. Personality type was constructed based on theory of personality by Carl Jung, a Swiss psychiatrist who introduced a personality model known as Myers-Briggs Type Indicator (MBTI). Another established model of personality named Five Factor Model (FFM) or Big Five consists of five main domains (Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism).

Schutte and Malouff (2004) found that Big Five Inventory is correlated to reading preferences including reading materials, time spent for reading total amount of recreational reading, amount of reading of favourite material, and amount of non-recreational reading. Krach et. al., (2016) investigated on personality and reading fluency, and Openness showed positive relationship with reading fluency. According to Furnham et. al., (2003), Conscientiousness is related to learning new information, but Openness with characteristics of curiosity or intellectual interest (McCrae, 1996)

may attract learners to read as that is one of the ways to acquire knowledge. In addition, Beaujean et. al., (2011) discovered that Agreeableness, Conscientiousness and Openness have significant correlation with general reading achievement.

### 4.3 MATERIALS AND METHODS

This study employed questionnaire for data collection method. Big Five Inventory (BFI) was used for personality traits and for reading habits, the questionnaire was adapted from Pandian's (1997) Reading Habit with additional questions to answer research objectives of this study. Among the questions for reading habit are types of reading materials, time spent for reading, and preferred language for reading. As for personality traits, there are 44 items accompanied by 5-Likert scale ranging from disagree strongly to agree strongly. The questionnaire for this study was checked for its reliability, and the Cronbach alpha is 0.716 which show that it can be employed for this study.

### 4.4 RESULTS

The data was analysed statistically and the finding discovered interesting information. There were 23 respondents who were in the first semester and from the same degree program which is Bachelor of Engineering Technology in Quality Engineering. 11 of them are male which equivalent to 47.8%, and the balance is female, with 87% of the respondents are Malay.

The respondents mostly have the personality of Agreeableness ( $M = 3.6812$ ), combine with Conscientiousness ( $M = 3.33623$ ) and Openness ( $M = 3.3087$ ). This means that mostly respondents are kind and appreciative as these are among the characteristics of Agreeableness. Besides that, they also possess characteristics of Conscientiousness such as thorough, organised, and efficient, and they are also imaginative, intelligent, having wide interests and original as these are the characteristics of Openness. This has answered the first objective on the personality traits of respondents.

As for reading, 52.2% of the respondents like to read, while 47.8% have little interest in reading. In details, 76% of female respondents like reading as compared to only 27.3% male respondents. Female with 91.7% and male with 90.9% read not only for academic purpose. In addition, their interest in reading is reflected in the amount of time spent for reading. Most of the respondents which is 60.9% spent less than one hour for academic reading, while 69.9% of the respondents spent more than one hour for non-academic reading. In term of preferred language for reading, 56.6% the respondents usually read in English and Bahasa Melayu, and surprisingly 43.5% of the respondents selected English as their preferred language. With regards to printed or online, 39.1% of the respondents chose to read both printed and online materials. As for the category of reader, most of the respondents considered themselves as average reader (43.5%), even though they spent more than one hour for non-academic reading. The respondents also preferred to read fiction, comedy, crime or detective type, romantic or relationship and also non-fiction.

For the third objective, Pearson correlation was employed. Nevertheless, there was no positive significant relationship between personality traits and reading habit, except three negative correlations ranging from weak to moderate. Extraversion is negatively correlated to the amount of time spent for non-academic reading ( $p = -.482$ ), while Openness is negatively correlated to frequency of reading ( $p = -.567$ ), and frequency of reading outside of school time ( $p = -.560$ ).

## 4.5 DISCUSSION

Based on the finding, the respondents have dominant personality of Agreeableness and also Conscientiousness and Openness. The respondents also like reading and they spent more time for non-academic reading as compared to reading for academic purposes. In addition they spent between once or twice per week for reading after school, and they spent less than one hour for academic reading. The respondents also opted for a combination of printed and online for reading which might be due to the technological era where people read online. It may be due to the cost and other drawback

of having printed material. This portrays that the respondents are alert on the existence of easy access of online materials. The finding also shows that the respondents prefer to read materials in English and Bahasa Melayu. They might realise the importance of English to them as students and for their future. Further study can be done to understand the reason for choosing the preferred language for reading.

For future, there are other angles to be focused on such as the rationale of choosing English or Bahasa Melayu for reading. Interview and observation might be employed as to provide deeper understanding to comprehend why certain options were chosen by the respondents. The limitation of this study is number of respondents. With limited number of respondents, the researchers are not able to provide conclusion across all the Bachelor of Engineering Technology programs. It is recommended to have bigger number of respondents to involve in this study, so that better conclusion can be made. As a conclusion, knowing that the learners have the characteristics of Openness, lecturers should be able to plan teaching activity that suits majority of the learners. Furthermore, lecturers should make use of students' preferred reading habit by providing materials from latest news for example, either printed or online. Even though there is no significant relationship between personality traits and reading habit, other information about the respondents provide interesting discovery such as their preferred language for reading.

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## Does Quranic Recitation Enhance Life Satisfaction Among Drug Abusers in Narcotic Rehabilitation Center in Indonesia?

*Lainatul Mudzkiyyah and Aqeel Khan*

### 5.1 INTRODUCTION

Globally as well as locally in Indonesian context drug misuse is a serious problem in our society, which resulted many losses from various perspectives like health, education and economic impact. At 2014, total of drug user in Indonesia were 4.2 million people, which increased to 5.9 millions at 2015 (Kompas, 2016). The victims who died because of narcotic problem counted 50 people a day and became 15.000 a year. Drug users were predicted increasing 13.6% in past year (Metrotvnews, 2016).

Based on cases reported, the youngest narcotic victim was 10 years old, elementary school age ([www.jabarsatu.com](http://www.jabarsatu.com), 2016). Meanwhile, Monitoring the Future (MTF) Survey of drug use and attitudes among American 8th, 10th, dan 12th mentioned that prevalency of adolecents 12th using drugs had fairly large percentage. That was known by types of drug used as follows; Alcohol 58.2%, Marijuana 34.9%, Hookah 19.8%, Amphetamines

7.7%, heroin 5.5%, Hallucinogens 4.2%, Sedative 3.6%, LSD 2.9%, Inhalants 1.9% ([www.drugabuse.gov/publications/drugfacts/high-school-youth-trends](http://www.drugabuse.gov/publications/drugfacts/high-school-youth-trends), uploaded 01/06/2016). This data showed that drug misuse was relatively high among teens.

Drug users always experience difficulty when they want to stop drugs. That was because they get a withdrawal syndrom. Withdrawl syndrom is a symptom caused stopping using drugs. This condition makes body normal function disrupted like irritability, nervousness, anger, depression, sleep problem, nausea, restlessness, diarrhoea, muscle spasms, chills, headace, and violent outbursts (Winstock & Lea, 2006). They also feel helpless without drugs and always use this reason to relapse (Drug Enforcement of administration, 2015).

Various narcotic rehabilitation program did not show guilty feelings. They always feel guilt to God, guilt to their family, and to their society because of what they did (Leon, 2000). Therefore, suicide attempts often occur among recidents (*drug user following narcotic rehabilitation program*) in the house of rehabilitation. In House of Pamardhi Putra Narcotic Rehabilitation, drugs users showed bad moods as; depressive, lack of interest to doing fysical activities outside, stay all day long in a room, tent to sleep all day, irritability. They also felt hopeless because of not having place to go home. Other than that, history of poor health as like carrying HIV, post-stroke paralysis, asthma, chronic ulcers, and hepatitis C made them more helpless. According to recidents, they always relapse even when in program of rehabilitation.

The above condition indicated that residents judged negatively themselves and had litle hope to get out of the problem. Meanwhile, people who are considered satisfied with his/her life when they can demonstrate a positive attitude, a positive emotional experience and have a purpose in life, which plays an important role in the social environment (Guo & Chen, 2016). Life satisfaction is the process of assessing overall survival by comparing the state of thought to reality (Diener, Emmons, Larsen & Griffin, 1985). Zullig, Valois, Huebner, Oeltmann, Edrane (2001) have observed that adolescents who first consumed drugs at age <13 years is known to have a lower life satisfaction. Likewise, in adolescents

who consume cigarette, known to have a lower life satisfaction compared with non-users (Shania & Sharma, 2012). Other findings also explain that addicts who have high life satisfaction tend not easy to relapse (Razali, Razali, Dokoushkhani, and Mehrad, 2015). Adolescent addicts who have a low stress coping also indicate low life satisfaction (Mousavinasab, Shamsuddinilori & Mansouri, 2015). Therefore, this becomes the basis why the resident should be given to interventions to improve life satisfaction.

Intervention in this case used Islamic approach with reciting quran. Qur'an is a source of healing for moslems (Letter al., Isra': 82). Qur'anic recitation has therapical effect and re-laxation to an individual even if he does not understand the meaning of the verses being read (Tumiran, Mohamad, Saat, Yusuf, & Rahman, 2013). Verses of al-Fatihah used in this treatment and read because this letter (surah) is the greatest Letter in the Qur'an and included a wide range faidah and primacy (Bahreisy & Bahreisy, 1992). In addition, the letter al-Fatihah contains a complete prayer, incantations, and medicine and healers (Shihab, 2005). Letter al-Fatihah also can cure all diseases, inadequate human in overcoming anxieties, protects from all evils, and become a spell to face an adversity (Shihab, 2005). Research from Pashib, Khaqani, Bahrainian, and Abedi (2014) showed that the Quran recitation can reduce depression in Female Students of Torbat-e-Heidariye University. Meanwhile, read the letter al-Fatihah with reflective intuitive method can reduce stress and improve immunity (Yulianto, 2013). According to Purwoko (2013), al-Fatihah reflective therapy (ART) can be used as an alternative to a single intervention, or into additional interventions for Muslim clients.

Qur'anic recitation became a treatment in this study based on Islamic psychotherapy approach. Ritual in Islam such reciting quran could be a method to purify themselves, releasing guilty feeling from sins and perfidy from the past, and guiding to the truth (Shihah, 2005). Therefore, researchers wanted to know whether the Quranic recitation can increase life satisfaction among drug abuser in Phamardhi Putra Narcotic Rehabilitation Center. Reasercers hypothesized that reading the Qur'an can increase life satisfaction among drug abuser in Narcotic Rehabilitation Center.

## 5.2 LITERATURE REVIEW

### Life Satisfaction of Drug Abuse

Life satisfaction is the process of assessing overall survival by comparing the state of thought to reality (Diener, Emmons, Larsen, Griffin, 1985). Zullig, Valois, Huebner, Oeltmann, Edrane (2001) have observed that adolescents who first consumed drugs at age <13 years is known to have a lower life satisfaction. Likewise a adolescent who consumes cigarettes, known to have a lower life satisfaction compared with non-users (Shania & Sharma, 2012). Other findings also explain that addicts who have high life satisfaction tend not easy to relapse (Razali, Razali, Dokoushkani, and Mehrad, 2015). Adolescent addicts who have a low stress coping also indicates low life satisfaction (Mousavinasab, Shamsuddinilori, & Mansouri, 2015).

### Quranic Recitation in Treatment

Qur'anic recitation has therapical effect and relaxation to an individual even if he does not understand the meaning of the verses being read (Tumiran, Mohamad, Saat, Yusuf, & Rahman, 2013). Verses of al-Fatihah used in this treatment and read because this letter (surah) is the greatest Letter in Qur'an and included a wide range faidah and primacy (Bahreisy & Bahreisy, 1992). In addition, the letter al-Fatihah contains a complete prayer, incantations, and medicine and healers (Shihab, 2005). Letter of al-Fatihah also can cure all diseases, inadequate human in overcoming anxieties, protects from all evils, and become a spell to face an adversity (Shihab, 2005). Research from Pashib, Khaqani, Bahrainian, and Abedi (2014) showed that the Quran recitation can reduce depression in Female Students of Torbat-e-Heidariye University. Meanwhile, read the letter al-Fatihah with reflective intuitive method can reduce stress and improve immunity (Yulianto, 2013).

Dahlan (2010) revealed that serenity, optimism, and happiness would be achieved when the individual was able to recite and appreciate verses al-Fatihah repeatedly and continuously. Rahmat (2008) also explained that verses of quran be able to a therapeutic media. As Allah Subhanahu Wata'ala said in Quran, Letter of Yunus : 57 *"O mankind, there has to come to you to instruction from*

*your Lord and healing for what is in the breasts and guidance an mercy for who believe”.*

Safaria (2011) also supported this study that religiosity practice and experience made somebody getting emotionally positive and more mentally healthy. Papalia, Old, & Feldman (2008) declared that there were positive correlation between religiosity and wellbeing, marital satisfaction, and psychological function; and had negative correlation with suicide, crime, deviant behaviour, alcohol use, and drug abuse. Rahmat (2012) also was agree that religious activities could affect the mental health and psychological happiness.

Lichstein, Peterson, & Riedel (1999) stated reading quran as a part of ritual activities that can reduce distress and getting calmness when in difficult time. When somebody did relaxation with quran, the heart, soul, and mind just focused and remembered in Allah. This matter made somebody surrender to God and gave more energy (Dossey, 1997). Doing worship and service were more effective reducing stress than doing moscular relaxation.

Calmness and surrender to God when doing worship can give multiple effect of relaxation. Those resignations inflicted an attitude of self acceptance that made tention being able to tolerate (Purwanto, 2006). Reciting al-Fatihah letter made somebody doing dialoge to God (Dahlan, 2010). There were answers for every single verse of surah al-Fatihah (Arifin, 1978). In fact, mechanism of reading quran can change dysfunctional emotion without cognitive process (Purwoko, 2013).

### **5.3 QURANIC RECITATION FOR ENHANCING LIFE SATISFACTION AMONG DRUG ABUSERS**

#### **Material and Methods**

**Participants:** Four participants were participated (2 male, and 2 female) with range from 14 to 20 years old. The criterias for research subject were; in faith moslem religion, not had severe mental illness (psychosis), stay in house of narcotic rehabilitation, and categorized with low until moderate satisfaction in life measured by *The Satisfaction with Life Scale* (SWLS) developed by Diener.

**Research Design:** This study used pre-experimental design with one group pretest and posttest design (Sugiyono, 2013). This design was to determine effect of Qur'anic recitation to life satisfaction for recidents. Life satisfaction aspect was measured and compared from before treatment with after getting treatment, and after follow-up.

**Measurement:** Data were collected with many methods such as interview, observation and worksheet of evaluation.

**The Satisfaction with Life Scale (SWLS):** Dimension of satisfaction in life measured with SWLS developed by Diener, et. al., (1993) and also have adapted by Wibisono (2010) in Indonesia. Wibisono (2010) showed alpha reliability coefficient 0.70. The SWLS contains five statements with seven responses, 1 (*strongly disagree*), 2 (*disagree*), 3 (*somewhat disagree*), 4 (*doubtful*), 5 (*somewhat agree*), 6 (*agree*), 7 (*strongly agree*). That five statement measured individual cognitive view in life. The total score would generate score from 5 – 35. That score grouped become eight categories; 5 – 9 (*very dissatisfied*), 10 – 14 (*not satisfied*), 15 – 19 (*slightly dissatisfied*), 20 (*neutral*), 21 – 25 (*quite satisfied*), 26 – 30 (*satisfied*), and 31 – 35 (*very satisfied*).

**Interview:** Interview was used to collect qualitative data. Interview was conducted at baseline before treatment, during treatment, and after treatment until follow-up. Subjects interviewed were participants, counselors, and fasilitator in treatment study.

**Observation:** The findings was obtained from observation to subjects before getting treatment, during treatment, and after treatment. The observational target was daily condition such us daily affective, expression, and behavior. Some aspects considered during treatment were subject involvement during treatment, the seriousness doing the task, and attention to material presented.

**Worksheet of Evaluation:** Evaluation worksheet given to participants after completing topics discussed throughout treatment process.

## 5.4 RESULTS

Quranic recitation can increase life satisfaction among drug abusers. The research showed a result, as a table follows!



**Table 5.1: The result of Quranic recitation effect to life satisfaction among drug abuser**

Aspect	Measurement	Mean	Hipotesis Testing	
			Z	Sig.
Life Satisfaction	Pretest - Posttest	12.25 25.25	-1.826	0.034
	Pretest - follow up	12.25 28.00	-1.841	0.033

Based on, Table 5.1 pretest showed life satisfaction aspect on that subjects significantly increased after treatment. That was known by mean score, 12.25 at pretest (before treatment) then became 25.25 at posttest (after treatment) even more increasing till 28.00 after follow-up. That were significantly increasing with  $P = 0.034$  ( $P < 0.05$ ) at comparison between pretest and posttest, and  $P = 0.033$  ( $P < 0.05$ ) at comparison between pretest and follow-up. That condition showed that Quranic recitation gave an significant impact to recident. There was difference in life satisfaction before treatment with after tratment. A life satisfaction increased after getting Quranic recitation an more increasing after follow-up, than before getting Qur'anic recitation.

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## CHAPTER

# 6

## Spirituality in Man as a Natural Dispensation: Its Consequential and Therapeutic Effects

*D. A. Maiwada*

### 6.1 INTRODUCTION

Humans and other creatures are Almighty God's creations with the purpose of worshipping Him. Almighty says 'I have created *jinn*s and humans so that they should worship for me', meaning obedience and compliance with His injunctions. Having created man, Almighty God then subjected His other creations to man's benefit: trees and fruits of all kinds, animals to eat, ride and entertain, mountains, hills, rivers, seas, and oceans, and soil, land and atmosphere (*Surah al-Rahman*).

In order to provide human's with a model and guidance on how to worship HIM, the Almighty Allah sent to man Messengers and Prophets with His message or injunctions. In the present time, the Holy Qur'an and the sayings and practices of Prophet Muhammad (S.A.W) are the guidance meant to regulate human behaviour with a view to achieving peace and tranquility. In this is also the

basis of man's trial. Those who are obedient to the injunctions of Almighty God are those who follow them in totality and those who are disobedient are those who reject the injunctions and ignore them. Almighty Allah promised the obedient servants peace and tranquility in this life and a blissful paradise (al-Jannah fir daus) in the hereafter. To the disobedient, they will not live a tranquil life in this world and in the hereafter they will meet with the punishment of a blazing fire (al-Jahannum).

The path to worship of ALLAH has been clearly spelt out in the Holy Qur'an and the sayings and practices of Prophet Muhammad (S.A.W). First and foremost is faith in Allah (*Iman*), and in His Prophets, His Angels, His Books, His Divine arrangement, and in the Hereafter. Second is to observe prayer (*Salat*), Fasting of the month of Ramadan (*Saum*), annual payment of the poor-due (*Zakat*), and performing pilgrimage (*Hajj*). These constitute the five pillars of Islam which are the bedrock of the Islamic way of life (Shari'ah). The next aspects of worship of ALLAH pertain to good deeds (*amal salih*) comprising charity, kindness, forgiveness, patience, benevolence, helpfulness, voluntary fasting and prayer, due regard to neighbours, greeting people with nice words, assisting anyone who seeks help, and avoiding sin, that is, anything prohibited by Allah's injunctions such as associating things with ALLAH (*shirk*), murder, adultery, theft, cheating and usury.

The Shari'ah has gone further to protect human lives (by the punishment for murder), personal property (by the punishment for theft), family and personal integrity (by the punishments for adultery and fornication) and human conscience (by the punishment for alcohol consumption and drug abuse).

From the foregoing discussion it is evident that the Shari'ah is a comprehensive guidance (*hudan linmas*) covering all aspects of human existence. The creator, Allah Shuhanahu Wa Ta'ala, knows best about His creations and is most able and capable of caring for their existence in the same way that a manufacturer of a car issues its buyer a Maintenance Handbook. With all these favours and blessings of our Creator, Allah, why should anyone not be grateful. Believers must remain grateful to Allah by observing

His injunctions in their totality. Doing so makes man live in peace and tranquility and with expectation of a reward in the Hereafter, thus the prayer,

‘O Lord! Give us the good in this world as well the good in the Hereafter, and shield us from torment of Fire’ (2:201).

Pertaining to obedience the Almighty exhorts us, thus,

‘Your Lord is ALLAH Alone, so commit yourself to HIM obediently and proclaim good news to the mindful, whose hearts tremble whenever God is mentioned and are patient with anything that may happen to them, and those who keep up prayer and spend out of what we have provided them with (22:34-35).

This lengthy background has shown that man, being a creation of Almighty God, being sustained by God’s favours and blessings, and being promised a blissful paradise or a blazing fire in the Hereafter, has a spiritual dimension as a natural dispensation (that is occurring due to his nature). This is what this paper discusses.

## 6.2 CONSEQUENCES OF THE SPIRITUALITY IN MAN

Spirituality in man arises from compliance of a believer with the injunctions of ALLAH, much compliance results in piety (*taqwa*). To understand the extent of the compliance let us consider the daily life events of a believer. He/She starts the day with early morning (*Subh*) prayer at about 5.00am, preceeding and following it with voluntary (*nafil*) prayers and supplications (*du’a*). In the mid-afternoon the believer prays the (*zuhr*) prayer with (*nafil*) prayers before and after it. In the afternoon the believer prays the (*asr*) prayer with (*nafil*) prayers before and after it. In the evening the believer prays the (*magrib*) prayer and subsequently prays the night prayer (*i’sha*). After it there is a recommended voluntary prayer (*witr*) a believer should perform before sleep.

Besides performing the daily prayers a believer is supposed to say, ‘In the Name of Allah, the most Beneficent, the most Merciful’ (i.e. *Bismillah*) before eating, driving, sitting, commencing work,

reclining, and talking. He/she is supposed to express gratefulness to Allah (*alhamdu lillah*) after each activity. A believer is expected to greet his fellow believers by saying peace and blessings of Allah be unto you (*assalamu alaykum wa rahmatullah wa barakatuhu*) whenever they meet. The believer should assist anyone in need by giving charity or some other help.

The daily prayers, the *bismillah*, the *hamdala*, the charity, the nice greetings and other deeds vary in degree of compliance between believers. This is what accounts for the difference in piety (*taqwa*) between believers, there are those who excel in compliance, those very good and those not good. History has preserved accounts of lives of pious men and women who were companions (*sahaba*) of the Prophet Muhammad (S.A.W) from which the consequences of high degree of piety can be discerned. The following examples clearly show that the *sahaba* of high degree of piety used to endanger themselves, used to do wonders and extra-ordinary deeds being sure of Allah's help, depending upon His Promise as it happened in the Islamic army under the commandership of Sa'ad Ibn Abi Waqqas....he stood in front of the town "Al-Madian" and could not find any ship or boat to cross over the river Tigris (Iraq) which had over flooded. Sa'ad addressed his troops saying:

"I have resolved to cross this great river in order to assault the enemy". The troops replied: 'May Allah direct us and you to follow the right path. So please do it". Then Sa'ad rushed heedlessly into the river Tigris and not a single man remained behind; so they marched over it as if they were marching over the surface of the earth. The troop spoke to one another over the surface of the water as they used to speak to one another over the surface of the earth. So when the Persian army saw them they said, "By Allah! You are not fighting against human beings, but against Jinns". On that Sa'ad started saying: "Allah is sufficient for us and He is the Best Disposer (for our affairs); By Allah! Surely Allah will give victory to His friends; verily Allah will make superior His Religion, and verily Allah will give defeat to His enemy as long as there are neither adulterers nor committers of those similar evil sins in the army (Sa'ad's troops), then the good deeds will overcome the evil.

The Caliph Umar ibn Al-Khattab (r.a) in his letter to Sa'ad ibn Abi Waqqas when he sent him for the conquest of Persia strongly urged him and all the troops to be obedient to Allah in all circumstances and be more cautious and afraid of sins and crimes (and not to commit them). Said the Caliph, "The Muslims are victorious only because of the disobedience of their enemy to Allah, and had it not been so, we have no power over them, because neither our number is like their number, nor our weapons are theirs. If we commit crimes and sins as they do, then they (our enemies) will have superiority over us in power and we will not gain victory over them" (Khan, 1976).

A second example of the consequences of high piety is seen in the story of Uqbah bin Nafi. Uqbah intended to settle in a place in Africa with his army so as to protect their families and properties from revolt against them by the natives of the place. So he betook himself to the place called "Al-Qirwan", and it was a forest full of every kind of beasts of prey (lions, tigers, leopards, etc) and snakes...etc. So Uqbah invoked Allah, and Allah answered to his invocation, he then said: O snakes and wild beasts of prey! We are the companions of Allah's Apostle (Muhammad), go away from us as we are landing here, and afterwards if we found any of you we will kill you". So the people say the wild animals and snakes carrying their offspring, shifting from that place. A great number of the natives (Al-Bar-Bar) saw all that happened and embraced Islam (Khan, 1976).

A third example was narrated by Muhammad Qutb (1974). The Caliph Umar ibn Al-Khattab (r.a) was sitting in Medina and suddenly, by the Grace of Almighty Allah, he was shown the scene in which his Commander, Sari'ah and troops were being ambushed. On the spur of the moment the Caliph Umar (r.a) shouted Sari'ah to the mountain....to the mountain. Sari'ah heard this warning several hundred miles away and headed it. That saved the situation and the Muslim army were victorious over the enemy.

The above examples affirmed Caliph Umar ibn Al-Khattab's exhortation on avoidance of disobedience to Allah by not committing sins or crimes as the path of success (Sirat al-Mustaqim) in all endeavours of a Muslim.



### 6.3 THERAPEUTIC EFFECTS OF SPIRITUALITY IN MAN

In the preceding section it has been established that humans are Allah's creation and the Almighty subjected His other creations to the benefit of man. In addition Almighty Allah provided humans with guidance in form of His revelations of which the Holy Qur'an is the final. Faith and practice of the injunctions contained in the Holy Qur'an and Sunnah lead to piety (Taqwa) which has consequential benefits to humans in this world and in the Hereafter.

Pious servants of Allah live a life of peace and tranquility because of their closeness to the Almighty. Piety is associated with healthy well being of man and the hope of a blissful paradise in the Hereafter. Thus it has double benefits for man. On the contrary, faithful but disobedient servants of Allah who have committed a crime or sin may experience transitional psychological problems. In this regard Islamic psychotherapy can be useful towards ameliorating such transitional problems. Malik Badri (1979) described such a procedure with his obsessive compulsive behaviour patient. The procedure involved Malik Badri attending *tarawih* prayers together with the patient, during which verses of the Holy Qur'an were recited in excellent tune. During one of the recitations of the verses reminding of Allah's forgiveness of sins, the patient broke down in tears. After the prayers were over, he asked her why she was crying to which she confessed her sin.

Prayer, supplication, recitation of the Holy Qur'an and patience have therapeutic effects on a believer. Allah Subhannahu wa ta'ala says:

Keep up prayer at both ends of the day and at the approach of night. Good deeds remove evil deeds: that is a Reminder for such persons as will be reminded. (11:114)

Recite whatever has been revealed to you from the Book, and keep up prayer: prayer restrains one from indecency and misconduct. Yet mentioning God is even more important, for God knows whatever you do. (29:45)

You who believe, seek help through patience and prayer. (2:152-153)

Believers will succeed! (This means) those who are reverent in their prayer. (23:1-2)

Your Lord is well Aware of what is on your minds, if you behave honourably, then He will be Forgiving towards those who are penitent (remorseful) (17:22-39)

The above verses of the Holy Qur'an are full of exhortations on constant prayer, supplication, recitation of the Holy Qur'an and patience. All these good deeds are used in '*ruqya*' for treatment of psychological disorders and other psychic illnesses. Ordinarily they have a soothing effect on the body and mind of a believer.

#### 6.4 CONCLUSION

Humans, being creatures of the Almighty God whom He assigned the duty of worshipping Him, have this innate spiritual tendency. Besides this, Almighty God sent to man guidance in form of revelation on how he should worship the Almighty. This is an added spiritual dimension. Consistent and full compliance to the injunctions of Almighty God makes man pious. Piety has attendant peace and tranquility in humans. On the contrary, consistent disobedience to the Almighty through engaging in crime or sin makes humans prone to psychological, and often times, physical disorders. But when a person is repentant and seeks Allah's help through prayer, supplication, recitation of the Holy Qur'an, and patience, psychological disorders are overcome (by the grace of God). The paper has pointed out other consequences of piety (*taqwa*) in the examples of pious companions of the Prophet Muhammad (S.A.W.) who performed wonders and extra-ordinary deeds being sure of Allah's help and protection.

To a Muslim being obedient to Allah is an imperative for a healthy well being and for guarantee to earning the reward of al-Jannat Fir daus in the Hereafter. 'O our Lord give us the good in this world as well as the good in the Hereafter, and shield us from the torment of Fire' (2:201).

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**THEME**

**2**

**Contemporary Issues  
and Challenges  
in Counselling and  
Psychology**



## Efficacy of Omega-3 in Improving Handwriting Skills Among School Children with ADHD

*Hassana Sani Darma*

### 7.1 INTRODUCTION

One of the most frequent comments about children who are not doing well in school is that they do not pay attention. This observation is usually made when children fail to concentrate on an assigned task, do not orient their head and eyes toward the teacher when instructions are being given, or fail to follow directions. Conversely, sustained work on a task, orientation of head and eyes, alert facial expression, carrying out directions, and successful performance are usually considered indicators of attending behavior. It is important to remember that attention is a cognitive operation and cannot be observed directly. Teachers can only observe a child's performance and make inferences as to whether or not the child is paying attention, Lerner, (1999).

Attention is difficult to define since it is not directly observable. Since so many stimuli bombard children in a classroom, it is impossible for an observer to know which of the many stimuli the

child may be attending to. It is important, therefore, to observe and note distractive attending behavior. Lerner (1999) suggested that the term “selective attention” can be used to describe the capacity to intentionally select specific stimuli on which to focus one’s attention.

Hyperactivity is regarded as excessive activity that results in disruptive or off-task behaviors, thus inhibiting the students’ ability to attend (Zentall & Leib, 1985). Abang, (2005) indicated that hyperactive children display excess, purposeless movement. They are frequently restless and engage in random activities. They are in constant motion. The behavior thus exhibited is not necessarily bad, but too much of it.

According to Okey-Martins, (2006), the term attention span refers to the amount of time a person can concentrate on a single activity. If one is unable to complete a task or is easily disturbed by other stimuli, one may have a short or abnormal attention span. A short attention span interferes with a person’s ability to focus and attend, thereby making learning difficult. Okey-Martins conducted a research in Lagos, Nigeria in which he interviewed 28 therapists and parents working with special needs children. Of this number, 85% indicated having problems that arose from difficulties in getting the children’s attention and keeping it long enough to complete a given task.

The Child Development Institute-CDI (2006) explained that some children have more trouble paying attention in class and completing academic assignments than others. They estimated that from 3% to 10% of school age children experience a condition known as Attention-Deficit Disorder (ADD) or Attention-Deficit/Hyperactivity Disorder (ADHD). This disorder is said to be more prevalent in boys than girls.

**Objective of the Study:** To determine whether the use of Omega3 can reduce symptoms in children with ADHD thereby improving their handwriting skills.

**Research question:** Can the use of Omega3 reduce symptoms in children with ADHD thereby improving their handwriting skills?

**Hypothesis:** There is no significant improvement in the handwriting skills of children with ADHD when treated with Omega3.

**Significance of the study:** Little data and literature exist in Nigeria on Attention-Deficit/Hyperactivity Disorder. This study would therefore add to the body of knowledge already existing. Lack of attention/concentration is one of the major problems teachers face when teaching pupils with ADHD. Therefore, this study will help bridge the gap between ingesting essential fatty acids and attention paying. The acquisition of attention paying abilities will alleviate the learning constraints of children with ADHD. The reduction of hyperactive behavior in children will improve attention/concentration and hence improve their academic performance. Since the learning problems of children with ADHD are numerous, this study will stimulate further research into other areas of learning and treatment that were not covered by it. Parents, teachers and the general populace will benefit from this study as it highlighted the several uses of Omega-3 supplements. Pupils will also benefit from this study as it will enlighten both their parents and teachers who will thereafter help these pupils out of their predicament.

**Scope and limitation:** The study was conducted in Kano metropolis, Nigeria, concentrating sampling and detailed study in a public primary school in the context of a case study. The study was specifically on 10-12 year old pupils in class 5 of this primary school. It was restricted to obviously identified cases of children with ADHD in Ja'en Special Primary School situated at Sharada Phase III in Gwale Local Government of Kano State. Essentially, this study did not extend to children with ADHD outside the school setting.

## 7.2 LITERATURE REVIEW

**Definition:** Most professionals abide by the American Psychiatric Association's (APA) (2000) definition:

"The essential feature of Attention-Deficit/Hyperactivity Disorder is a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and severe than is typically observed in individuals at a comparable level of development." (p.85)



**Causes of ADHD:** Neurological dysfunction, Genetics, Brain Injury/Damage, Environmental Agents, Food Additives and Sugar, and Developmental Lag.

**Essential Fatty acids:** Fatty acids are the basic building blocks of which fats and oils are composed. Contrary to popular myth, the body does need some of the right kind of fat. The fatty acids that are necessary for health and that cannot be made by the body are called *essential fatty acids* (EFAs). They are occasionally also referred to as vitamin F or polyunsaturates, Balch (2006).

The human brain is 60% fat if all the water is taken out. These fats are always being replenished, so it is crucial to know which kind will feed your brain the best. Some fats are not only positively good for us they are absolutely vital for mental health. Not only do we need them to stay free from disease and depression, dyslexia, attention deficit disorder, fatigue, memory problems, Alzheimer's and Schizophrenia have all been linked to deficiency - we also need them in optimal amounts if we want to maximize our intelligence, Holford, (2007).

A lack of polyunsaturated fatty acids can make the brain more vulnerable to a variety of disorders. Oils and fats (lipids) make up more than half the brain's body weight. The nervous system has an even higher concentration of lipids. These lipids play a crucial role in forming cellular membranes: neural exchanges depend, to a large degree, on the integrity of these membranes. Obtaining a sufficient amount of these essential fatty acids from food sources is indispensable during the early growth years, and important for persons of all ages. These substances are not synthesized by mammals so the only way they can be obtained is from food sources, especially oil or oil supplements. A lack of linolenic acid (omega-3) can result in: anomalies in the composition of cellular membranes, problems with the retinas of the eyes, lowered resistance to certain toxins, potentially serious intellectual problems (memory loss, learning disabilities, etc), Dracea and Seguin, (2002).

According to Balch, (2006), a deficiency of essential fatty acids can lead to an impaired ability to learn and recall information. Therefore the brain and nervous system are totally dependent on a family of fats. These include saturated and monosaturated fat,

cholesterol, Omega-3 (Polyunsaturated) fat – especially EPA and DHA, Omega-6 ((Polyunsaturated) fat – especially GLA and AA.

Fatty acids play a key role in normal brain function. Since the body cannot synthesize essential fatty acids (EFA), they must be provided in the diet. In a study by Richardson & Puri, (2000), they reported that individuals with ADHD have difficulty converting essential fatty acids (EPAs) to polyunsaturated acids (PUFAs) and may be deficient in both of these substances. Another study found that boys with lower levels of omega-3 fatty acids had more learning and behavioral problems (such as temper tantrums and sleep disturbances) than boys with normal omega-3 fatty acids levels, Stevens, Zentall, Abate, Kuczek & Burgess, (1996).

Several studies indicated that some physical symptoms reported in ADHD are similar to symptoms observed in essential fatty acid (EFA) deficiency in animals and humans deprived of EPAs. Burgess, Stevens, Zhang and Peck, (2000) reported that a group of ADHD subjects reporting many symptoms indicative of EFA deficiency (L-ADHD) had significantly lower proportions of plasma arachidonic acid and docosahexaenoic acid than did ADHD subjects with few such symptoms or control subjects. In another study using contrast analysis of the plasma polar lipid data, subjects with lower compositions of total Omega-3 fatty acids had significantly more behavioral problems, temper tantrums, and learning, health and sleep problems than did those with high proportions of Omega-3 fatty acids.

Research at Oxford University has proven the value of these essential fats in a 'double-blind' trial involving 41 children aged 8 to 12 years who had ADHD symptoms and specific learning difficulties. Those children receiving extra essential fats in supplements were both behaving and learning better within 12 weeks, Richardson & Puri, (2000).

According to Mercola (2007), a Purdue University study showed that children low in omega-3 essential fatty acids are significantly more likely to be hyperactive, have learning disorders, and to display behavioral problems. Omega-3 deficiencies have also been tied to many conditions, including the following: dyslexia, depression, weight gain, heart disease, allergies, arthritis, violence,

memory problems, cancer, eczema, inflammatory diseases and diabetes.

### 7.3 RESEARCH DESIGN

This study is an experimental case study. The researcher used the quasi experimental, one group Pre-test, Post-test design. The school selected for this study was Ja'en Special Primary School, Kano Municipal Local Government, Kano State, Nigeria. The population of primary five pupils of the selected school was five hundred and forty (540) out of which forty were identified as exhibiting characteristics of ADHD. Out of the forty pupils identified as exhibiting ADHD symptoms, ten of them were randomly chosen for this study. The sample was derived using purposeful sampling technique. This is because every member of the sample has a known probability for selection i.e. they are all in class five, are all between the ages of ten to twelve, have all exhibited symptoms of ADHD and they all have handwriting problems. Experimental design was employed to undertake the study as it increases confidence that the observed outcomes were the result of a given intervention and not a function of extraneous variables. It also allows for generalization of the findings.

**Procedure for Identification:** One instrument was used for the identification of children with Attention-Deficit/Hyperactivity Disorder viz: Diagnostic and Statistical Manual for Mental Disorders (IV) Text Revision (2000). Permission was sought from the publishers of the manual (American Psychiatric Association) to use it for this study. This is a criteria used to identify pupils with ADHD symptoms and characteristics. It contains four sections of which a child must exhibit at least 60% of behaviors before he/she can be said to have ADHD. An identification form was formulated using the contents of this manual as outlined by The American Psychiatric Association (2000). The researcher gave teachers of the pupils' two ADHD identification forms. One was completed by the class teacher while the other by the parents of the child. The class teacher and parents ticked against any behavior listed on the document which was exhibited by the pupils.

The identification exercise was conducted by the pupil's teachers and parents to confirm that ADHD characteristics manifest in more than one setting that is at home and in school. The sample of identification form is below:

Name of child:.....

Date of birth:..... Age:.....

Present school:.....

Relationship with child:.....

### **Inattention:**

- (a) often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities
- (b) often has difficulty sustaining attention in tasks or play activities
- (c) often does not seem to listen when spoken to directly
- (d) often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to Oppositional behavior or failure to understand instructions)
- (e) often has difficulty organizing tasks and activities
- (f) often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework)
- (g) often loses things necessary for tasks or activities (e.g. toys, school assignments, pencils, books, or tools)
- (h) is often easily distracted by extraneous stimuli

### **Hyperactivity:**

- (a) often fidgets with hands or feet or squirms in seat
- (a) often leaves seat in classroom or in other situations in which remaining seated is expected
- (c) often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness)
- (d) often has difficulty playing or engaging in leisure activities quietly

- (e) is often “on the go” or often acts as if “driven by a motor”
- (f) often talks excessively

**Impulsivity:**

- (a) often blurts out answers before questions have been completed
- (b) often has difficulty awaiting turn
- (c) often interrupts or intrudes on others (e.g. butts into conversations or games)

B. That some hyperactive-impulsive or inattentive symptoms that caused impairment were present before age 7 years.

C. That some impairment from the symptoms is present in two or more settings (e.g. at school or work and at home).

D. There must be clear evidence of clinically significant impairment in social, academic, or occupational functioning.

**Procedure for selection into treatment:** Sixty four pupils were identified as children exhibiting characteristics of ADHD through the administration of the DSM IV-TR, (2000) diagnostic criteria for ADHD. A one-page handwriting test was given to them to find out how many of them have handwriting problems. An instrument called CHEI (children’s handwriting error inventory) was used to compute the number of handwriting errors made by each pupil. Any pupil who made more than twenty errors in the test became eligible to be selected in the sample for the study. The researcher used her discretion to arrive at the twenty errors benchmark (having taught English for twelve years in a secondary school). Forty pupils who constitute 66.7% became eligible while twenty four pupils who constituted 33.3% made less than twenty errors and were therefore not included in the study. Ten out of the forty were randomly selected to serve in this study. The consent of parents of children who were selected for this study was sought. A consent form was designed by the researcher seeking parents’ permission to include their children in the study and to give them omega-3 supplements. The form made it clear that the capsules contained fish oil and that it will be provided by the researcher.

**Procedure for Intervention:** The intervention was conducted within a period of twelve weeks. The ten pupils who are the

sample were grouped together. The first lesson stood as the pre-test while the last lesson stood for the post-test. The handwriting lessons were checked and errors were marked for each lesson per pupil. Reduction in errors signified improvement in handwriting. Improvement in handwriting shows reduction in hyperactivity and improvement in attention. The pupils ingested omega-3 capsules every day for the period of the study (twelve weeks). This was running concurrently with a twice-a-week handwriting lesson which lasted for thirty minutes per session. Children's handwriting error inventory (CHEI) was used to compute number of handwriting errors made by each pupil. Results of the pre-test (before treatment) and that of the post-test (after treatment) were compared for differences.

**Material for lesson:** The handwriting lessons were adopted from Progressive Handwriting for Nigerian Primary Schools Book 2 authored by S. Hakim and S. J & D. C. Miller, (2002) and published by Oxford University Press, Ibadan, Nigeria.

**Procedure for data analysis:** Inferential statistics was used to compute the effect of omega-3 supplements on attention and by extension the handwriting skills of children with ADHD. It is the type of statistics where the researcher can draw conclusions on a population after studying a sample from that population. T-test for dependent sample analysis was used because the data derived in this study on the dependent variable conforms to parametric measures.

According to Gavin, (2008) this analysis is appropriate whenever we want to compare means of two distributions of data, and especially appropriate as the analysis for the two-sample experimental design. T-test paired samples statistics was employed to determine efficacy or otherwise of Omega-3 on handwriting on the basis of error analysis. This was because the means of the pre-test and that of the post-test were being compared for possible differences. The Statistical Package for Social Sciences SPSS 16.0 was the tool for the analysis. The formula employed is thus:

$$\frac{\sum D}{\sqrt{N(\sum D^2) - (\sum D)^2}}$$

16.0. To achieve this, error analysis result of pre-test (before treatment using essential fatty acids) and post-te N - 1.

where,

D = Deviation of paired scores

$\Sigma$  = Sum of

$\Sigma D$  = Sum of the deviations of the paired scores

N = Number of cases.

### Presentation of data:

**Hypothesis:** There is no significant improvement in the handwriting skills of children with Attention Deficit/Hyperactivity Disorder when treated with Omega-3.

In order to test this hypothesis, paired *t*-test analysis was employed using SPSS st (after treatment using Omega 3) were compared for difference. The result is presented below:

**Table 7.1: Pre-test and post-test error analysis of pupils with ADHD treated with Omega-3 (N = 10)**

<i>Pair 1</i>	<i>Mean</i>	<i>N</i>	<i>Std. Deviation</i>	<i>Std. Error Mean</i>
Number of errors before Treatment with Omega-3	51.0000	10	3.91578	1.23828
Number of errors after treatment with Omega-3	27.0000	10	1.82574	.57735

Table 1.1 above shows the mean handwriting error as 51.00 while the mean error after treatment is 27.00. The difference between the means of the before and after treatment is 24.0 while that of the standard deviation is 2.09 and that of the standard error mean is 0.66. A substantial mean difference exists; consequently a test of significance was further computed to determine level of significance.

Table 1.2 above shows that the calculated *t*-value of 24.27 is significant at 0.01 level of confidence. The null hypothesis was therefore rejected as this result proved that there is a significant improvement in the handwriting skills of children with ADHD when treated with Omega-3.

**Table 1.2: Significance of the difference in error analysis at pre-test and post-test for pupils with ADHD treated with Omega-3 (N = 10)**

Pair 1	Paired Differences							
	95% Confidence Interval of the Difference							
	Mean	Std. Deviation	Std. Error Mean	Lower	Upper	t	df	Sig. (2-tld)
Number of Errors before treatment minus Number of errors after treatment	2.4000E1	3.12694	.98883	21.76312	26.23688	24.271	9	.000

## 7.4 DISCUSSION ON FINDINGS

1. Omega-3 fatty acid is significantly effective in reducing symptoms of ADHD thereby ameliorating poor handwriting among the sample of pupils with ADHD in the selected primary school in Kano metropolis, Kano, Nigeria.
2. Table 1.2 showed the calculated *t*-value of 24.27 as significant at 0.01 level of confidence after comparing handwriting error analysis of pre-test and post-test results of pupils intervened with essential fatty acids (omega-3). The finding that essential fatty acids can be used in treating ADHD is supported by various studies. One such study was that carried out at Purdue University in the US by Burgess, (1998) who found that Omega-3 reduced symptoms of ADHD such as anxiety, attention-deficits and general behavior problems in children. Another research conducted at Oxford University proved that children with ADHD who received extra essential fats in supplements were both behaving well and learning better within twelve (12) weeks, Richardson & Puri, (2000).

## 7.5 CONCLUSION

After completion of this study, it is concluded that Omega-3 can reduce symptoms of ADHD notably hyperactivity, inattention and



lack of focus/concentration which in turn improves handwriting skills among pupils significantly.

## 7.6 RECOMMENDATIONS FOR FURTHER STUDIES

1. There is need to research further on the efficacy of other forms of treatment for children with ADHD in Nigeria.
2. It is also desirable to replicate this study in other geographical locations in Nigeria, Africa and other parts of the world.

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## **Relationship of Self-Determination, Metacognitive Awareness and Academic Achievement Among Undergraduates**

*Mohd Zahir Hafizi Safian and Hadijah Jaffri*

### **8.1 INTRODUCTION**

In the Malaysian Education Blueprint for 2013-2025 the emphasis is on the 21<sup>st</sup> century learning which highlights current trends and challenges of education system in Malaysia. Among the emphases are to produce students who possess high order thinking skills with all-round skills and survivorship in alignment to the 21<sup>st</sup> century learning. Understanding knowledge as the product of human knowing is a critical first step in the development of epistemological thinking, which is metacognitive in the sense of constituting an implicit theory of how things are known and increasingly is becoming recognized as influential in higher-order thinking (Hofer & Pintrich, 1997).

Even though there are many other factors that affect the achievement, this research aimed to study the relationship between both constructs of metacognition and self-determination that are believed to be related and have important roles in affecting the

students' achievement. John Flavell first introduced Metacognition in 1976 where he explains that people themselves have the ability to be aware of their learning, monitor their learning progression and evaluate outcomes. It can further be defined as what we know about our cognitive processes and how we use these processes in order to learn and remember (Ormrod, 2004). Researchers further conceptualize metacognition by breaking down metacognition into two subcomponents, metacognitive knowledge and metacognitive regulation. These two subcomponents have been theorized to be related to one another (Brown, 1987; Flavell, 1987; Schraw & Dennison, 1994).

However, according to Van Zile-Tamsen (1998), the extent of how metacognition affects students' achievement also depends on their motivational pattern. There is indeed relationship between metacognition and motivation in improving academic achievement (Saemah & Phillips, 2006). Moreover, the dynamics of motivation are often ignored or seldom studied (Ng, 2004). Contemporary motivational research usually simultaneously assesses complex relationships between different cognitive, emotional and behavioural variables (Walters et. al., 1996). The need for self-determination is indeed an important basis of intrinsic motivation. One would expect people to be more intrinsically motivated for activities over which they have greater self-determination (Zuckerman et. al., 1978). Furthermore, increasingly more motivation researchers have begun to study contextual influences on motivation and learning (McInerney & Van Etten, 2001, 2002; Volet & Jarvela, 2001; Ng & Renshaw, 2003). The specificity of a learning situation will certainly impact on how these individual variables interact with each other and contribute to the resulting forms and states of motivation in situ (Ng, 2004).

## 8.2 LITERATURE REVIEW

Educational psychologists have long promoted the importance of metacognition for regulating and supporting student learning. Metacognition is often defined as a form of executive control involving monitoring and self-regulation, a point echoed by other researchers (McLeod, 1997; Schneider & Lockl, 2002). Schraw (1998)

describes metacognition as a multidimensional set of general, rather than domain-specific, skills. These skills are empirically distinct from general intelligence, and may even help to compensate for deficits in general intelligence and or prior knowledge on a subject during problem solving.

At the early stage, studies about metacognition were conducted among young learners (Flavell, Friedrich & Hoyt, 1970) and in recent years, the research trend evolves and shifts towards the effect of metacognitive training and instruction in diverse fields such as reading, mathematics and problem-solving (Palincsar & Brown, 1984; Dignath & Büttner, 2008; Georgiades, 2004a). In spite of the increasing interest in metacognition as important contributor to intelligence and academic achievement, few studies have attempted to combine metacognition and motivation factor relationship towards academic achievement particularly among college and university students. Rahman and Masrur (2011) highlighted that there is still a need to explore the nature of metacognition through more future researches. Motivation also plays a role, with student cognition very much a function of whether and when students expect to be rewarded for exerting academic effort (Borkowski et. al, 1990; Dweck, 1986; Dweck & Legget, 1988).

Furthermore, several researchers highlight the link between metacognition and motivation (Ray & Smith, 2010; Schraw et. al., 2006; Whitebread et. al., 2009). Thinking skills alongside motivational factors are the core to critical and creative thinker as well as effective problem solver which need to be boosted (Kuldas et. al., 2015). Apart from that, findings in research about motivation in educational field consistently show positive relationship between motivation and academic achievement. Since the time of the shift toward cognitive theories, most motivation theorists remained unwilling to consider needs, focusing instead on goal-related efficacy. Self-determination theory has, in contrast, maintained that a full understanding not only of goal-directed behavior, but also of psychological development and well-being, cannot be achieved without addressing the needs that give goals their psychological potency and that influence which regulatory processes direct people's goal pursuits (Deci & Ryan, 2000).

Malaysian education system in school put less emphasis on task forces that expand students' thinking skills. It focuses more on the provision of information in order to prepare students for examinations and finish the course (Chew & Nadaraja, 2014). Consequently, when thinking skills is less promoted in class, it tends to withdraw students' motivation. External controlling conditions of learning by teachers cause the feelings of joy, enthusiasm, and interest that once accompanied learning are frequently replaced by experiences of anxiety, boredom, or alienation (Niemic & Ryan, 2009). As opposed to that, in Malaysia Education Blueprint 2013-2025 Wave 1, it involved revamping of national examinations and school-based assessment that introduce gradual increase in percentage of questions that test higher order thinking.

### **8.3 METHODOLOGY**

A descriptive research was used study the relationship between metacognition components, self-determination and student's achievement involving second year undergraduate students in Universiti Teknologi Malaysia. There were 347 students selected in this study through cluster sampling. To verify the reliability and validity of the instruments that were translated and adapted from the original versions which is in English to Malay, a pilot study was conducted prior to main data collection involving 38 students. The coefficient alpha obtained in the pilot study for Metacognitive Awareness Inventory (MAI) and Basic Psychological Needs Scale (BPNS) are 0.949 and 0.706 respectively. The data for the main study were analyzed using descriptive and inferential statistics.

### **8.4 RESULTS AND FINDINGS**

From the descriptive analysis on the data relating to metacognitive awareness, it was found that for the 347 respondents, the mean of Metacognitive awareness was 2.99 whereas the mean score for the knowledge of cognition factor and regulation of cognition factor was 2.94 and 3.01 as stated in Table 8.1. Using Mean Score

interpretation by Best and Kahn (1998), it was found that overall level of metacognitive awareness is moderate while the knowledge of cognition and regulation of cognition are moderate and high respectively.

**Table 8.1: Level of Metacognitive Awareness**

<i>Metacognitive awareness</i>	<i>Mean</i>	<i>Standard Deviation</i>	<i>Level</i>
Knowledge of cognition	2.94	0.370	Moderate
Regulation of cognition	3.01	0.323	High
Overall level of Metacognitive awareness	2.99	0.323	Moderate

For the level of self-determination, it was found that the mean of self-determination is at moderate level ( $M = 3.63$ ,  $SD = 0.360$ ). In terms of factors of Self-determination, Relatedness has the highest mean ( $M = 3.78$ ,  $SD = 0.50$ ) whereas for Autonomy ( $M = 3.59$ ,  $SD = 0.433$ ) and Competence ( $M = 3.49$ ,  $SD = 0.452$ ) both are at moderate level as shown in Table 8.2.

**Table 8.2: Level of Self-determination**

<i>Self-determination</i>	<i>Mean</i>	<i>Standard deviation</i>	<i>Level</i>
Autonomy	3.59	0.433	Moderate
Competence	3.49	0.452	Moderate
Relatedness	3.78	0.500	High
Self-determination	3.63	0.360	Moderate

For the inferential analysis, in order to identify the significant relationship between self-determination, metacognitive awareness and academic achievement, correlation was performed. It was found that the relationship between all the variables is weak. First, the correlation between metacognitive awareness and academic achievement is very weak with  $r = 0.111$  ( $p < 0.05$ ). In addition, it was also found the correlation between students' self-determination and their academic achievement is weak with  $r = 0.161$  ( $p < 0.05$ ). Finally, the finding illustrates that there is a weak significant relationship between students' self-determination and their metacognitive awareness ( $r = 0.3$ ,  $p < 0.05$ ).

**Table 3: Analysis of relationship between Self-determination, Metacognitive Awareness and Academic Achievement Among Second Year Undergraduate**

<i>Relationship</i>	<i>Correlation Index, r</i>	<i>Significant level, p</i>
Metacognitive Awareness – Academic Achievement	0.111	0.039
Self-determination – Academic Achievement	0.161	0.003
Self-determination – Metacognitive Awareness	0.300	0.000

\*\*\*Correlations are significant at  $p < 0.05$  (2-tailed)

In this study, a regression analysis was also conducted to determine the extent to which CGPA can be predicted from self-determination and metacognitive awareness. Based on Table 4, there is a significant relationship between self-determination and metacognitive awareness. Therefore, self-determination has a significant relationship with metacognitive awareness.

**Table 8.4: Overall Model Fit**

<i>Model</i>	<i>R</i>	<i>R Square</i>	<i>Adjusted R Square</i>	<i>Std. Error of the Estimate</i>
1	0.138 <sup>a</sup>	0.019	0.016	0.70923

<sup>a</sup>Predictors: (Constant), Self-determination

From Table 8.4, it indicates that only 1.6% (0.016) of the variance in academic achievement can be predicted from the self-determination. Note that this is an overall measure of the strength of association, and does not reflect the extent to which any particular independent variable is associated with the dependent variable.

**Table 8.5: Analysis of Variance (ANOVA)**

<i>Model</i>	<i>Sum of Squares</i>	<i>df</i>	<i>Mean Square</i>
1	Regression	3.320	1
	Residual	171.022	340
	Total	174.342	341

<sup>a</sup>Dependent Variable: CGPA

<sup>b</sup>Predictors: (Constant), Self-determination



Table 8.5 shows the Mean Square Regression (3.320) divided by the Mean Square Residual (0.503), yielding  $F = 6.601$ . The  $p$ -value associated with this  $F$  value is  $0.011 < 0.05$ . This indicates that self-determination has a statistically significant relationship with academic achievement. In other words, self-determination does reliably predict the academic achievement.

**Table 8.6: Parameter Estimates**

Model	Unstandardized Coefficients, $\beta$		Standardized Coefficients	$t$	Sig
	$B$	Std. Error	Beta		
1 (Constant)	3.628	0.294		12.343	0.000
Self Determination	0.164	0.064	0.138	2.569	0.011

<sup>a</sup>Dependent Variable: CGPA

From the above Table 8.6, the  $\beta$  coefficient is 0.138 with  $p = 0.011$ . With a 2-tailed test and alpha of 0.05, the null hypothesis is rejected in which the coefficient for self-determination is not equal to 0. Hence, this indicates that self-determination has a statistically significant relationship with academic achievement

**Table 8.7: Metacognitive Awareness as Excluded Variable**

Model	Beta In	$t$	Sig.	Partial Correlation	Collinearity Statistics
					Tolerance
1 Metacognitive Awareness	.068 <sup>b</sup>	1.201	.230	.065	.909

As shown in Table 7, the metacognitive awareness is categorized as excluded variable with  $\beta$  coefficient 0.068 with  $p = 0.230 > 0.05$ . Hence, there is no significant mediating effect of metacognitive awareness on students' self-determination and student's academic achievement.

Figure 8.2 below, is the model used to summarise the mediating effect of metacognitive awareness towards self-determination and academic achievement. It is shown that there is no significant indirect effect of self-determination on academic achievement through metacognitive awareness.

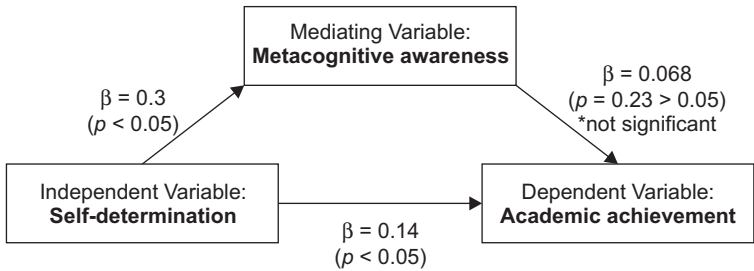


Figure 8.2: The Mediated Model

## 8.5 DISCUSSION

The present study explored the significant correlation between self-determination and metacognitive awareness towards academic achievement, although the correlations between variables are low. It also shows that metacognitive has no mediating effect between self-determination and academic achievement. According to the aforementioned theory, to promote higher level of intrinsic motivation which in particular is self-determination, educators and parents should encourage an autonomy-supportive environment that will make salient students' feelings of autonomy and competence (Valas & Sovik, 1994). Findings from this research may also support training programs instructing students on how to adopt effective metacognitive skills and strategies and learn how to master information instead of simply seeking to perform well (Cautinho, 2007).

## 8.6 CONCLUSION

The present study proposes the importance of giving a proper attention to both self-determination and metacognitive awareness in an effort to improve the students' learning outcomes. Efforts to immensely emphasized and promoting self-determination and metacognitive awareness from the very beginning of the school system in Malaysia to the students are beneficially long lasting and self-sustaining. It also suggested that in order to improve students' thinking skills and increase their metacognitive awareness, the best approach is to explicitly enhance the students' thinking through

suitable pedagogical approaches used by educators. Through this research too, it is hoped that it brings few significations to the educational practice as well as to imprint in the thinking patterns that are more appropriate to the adult learners especially the university and college's students

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# **Examining the Effectiveness of Lessons Designed Using Technological, Pedagogical and Content Knowledge (TPACK) Framework in Improving Upper Secondary Students' Understanding of Atomic Structures**

*Yvonne, CC Yong and Hjh Sallimah Hj Salleh*

## **9.1 INTRODUCTION**

The growing concern by the science teachers in Brunei Darussalam regarding the poor performance of the secondary students in the Brunei General Cambridge Examination “O” Level has come to the attention that research need to be done to tackle the problem. Reports done by the Ministry of Education showed that a very low achievement in the Brunei Cambridge General Certificate of Education (BCGC E ‘O’ level) was due to the failure of the students to acquire basic conceptual understandings and had problems with analyzing abstract processes.

This study will investigate how TPACK integrated lessons (known as TPACK-LP in this lesson) are designed to incorporate student-centered activities, using Jigsaw Activities, to learn and understand atomic structures. Each component (Technology Knowledge, Content Knowledge and Pedagogy Knowledge) in the TPACK body of knowledge will not be discussed further like what was done in other research, like Levin & Wadmany (2008)

who examined teachers' views on the factors that affect technology use in classrooms; Mishra & Koehler (2006) proposing a conceptual framework for teacher's integration of technology; Niess (2005) investigated teacher's pedagogical content knowledge with technology integration; Rosenberg & Koehler (2014) established the inclusion of context in prior TPACK research. This study focus more on student learning rather than the teacher. Therefore, this study was conducted using the Technological Pedagogical Content Knowledge framework in the intervention with a constructivist learning environment where it seeks to answer the research questions: (1) Does the TPACK framework for planning and teaching the curriculum of Chemical Bonding improve year 9 students' understanding of the concept? and (2) How does the lesson design using the TPACK framework affect students' attainment of the 21<sup>st</sup> century learning skills in the science classroom?

## 9.2 LITERATURE REVIEW

Developing techniques for meaningful learning is not as easy as it sounds as science teachers need to bear in mind that teaching science is not knowledge of a body of facts and theories but a progression towards key ideas which enable understanding of events and phenomena of relevance to students' lives (Treagust and Tsui, 2014; McFarlane & Sakellariou, 2002). Similarly, McCrory (2008) also showed that science learning must go beyond mastery of its core content and include technology as the subject itself is technology dependent (McCrory, 2008).

What is more challenging for teachers is planning lessons with ideal pedagogical content and technological knowledge is not a straightforward affair. Besides, learning scientific concepts in technology-enriched environment is not something new anymore. Even Krajcik & Mun (2014) stated that using technology in science has been implemented when desktop computers first appeared since 1980s. Students cannot be scientists if they are computer illiterate (McCrory, 2008).

The distinct domains of teacher knowledge called Technological Pedagogical Content Knowledge (TPACK) has emerged as a framework for examining educational technology training in teacher preparation (Koehler & Mishra, 2009; Neiss, 2008; Shin,

*et. al.*, 2009), measuring teacher's knowledge, (Phillips, 2014; Chai, *et. al.*, 2013) and developing professional development program for teacher (Chai, *et. al.*, 2013). Due to these, the TPACK framework emphasizes the role of teachers as decision makers who design their own educational technology environments as needed, in real time, without fear of those environments becoming outdated or obsolete (Mishra, *et. al.*, 2009). The development of TPACK by teachers is critical to effective teaching with technology. (Koehler & Mishra, 2009).

However, there is no evidence that teachers are properly integrating TPACK components into their teaching (Kafyulilo, 2010). Similarly, there is no mention in the literatures on how teachers with developed TPACK knowledge apply those knowledges to teach students for achievement although some researcher postulate that teachers' current TPACK level could serve as a vantage point for the design of support (Janssen & Lazonder, 2016).

Chai *et. al.*, (2013) also found that there is a gap in the literatures on students' achievement in TPACK-LP (Chai, *et. al.*, 2013) and no research done by teachers who were taught with TPACK knowledge to design TPACK-LP and investigate students' learning. Thus, in response to these gap, this study is designed to look at students learning in TPACK-LP using the backward design in TPACK.

## 9.3 METHODOLOGY

### Sample Selection

This design prioritizes both the quantitative and qualitative data equally, where the size of the qualitative sample much smaller than the quantitative sample (Creswell & Plano-Clark, 2011). For this, the quantitative sample involves 33 students learning Combined Science as their compulsory subject whereas the qualitative sample, four students were chosen randomly for a semi structured interviews. By doing this, it helps to obtain in-depth qualitative exploration and a rigorous quantitative examination of the topic (Creswell & Plano-Clark, 2011). Researchers like Creswell & Plano-Clark (2011) argued that the different in size of the two sets of data is not a problem as the intent of the data gathering is different for the two set of data: quantitative data collection aims towards making generalization to a sample while qualitative data



collection seeks to develop an in-depth understanding from a few people. The approach to integration is through merging and the purpose of merging the qualitative data is to quantify and support the quantitative data.

### **Measurement Approaches**

The participants were chosen as part of this research because one of the author is a teacher in that school. The samples were chosen because of convenient. The problems were identified based on the authors teaching experiences and Sagor's (2010) graphic representations and this leads to the hypothesis that TPACK-LP in technology enriched environment has a significant increase in students' test scores in the examinations. Therefore, in this study, two variables will be measured in data collection, namely TPACK-LP (an independent variable) and students' scores on tests (dependent variable).

### **Research Design**

This study is designed to look at students learning in TPACK-LP using the backward design in TPACK. Four cycles of intervention from the four knowledge dimensions (declarative, procedural, schematics and strategic) of the TPACK framework (Wiggins & McTighe, 2006; Niess, 2008), declarative (knowing that, including definitions, terms, facts and descriptions), procedural (know how that refers to sequences of steps to complete a task or subtask), schematic (knowing why by drawing on both declarative and procedural knowledge) and strategic (knowing when and where to use domain-specific knowledge and strategies, such as planning and problem solving together with monitoring progress towards a goal).

When this study was conducted, it was almost the end-of-year examination so this study only collected data for the first three cycles. Interventions were carried out during the students' combined classes. Data were collected from three sources; pre- and post-tests scores, students' interviews and classroom observations.

### **Research Strategies**

Table 9.1 summarized the research strategies, purpose, instrument used and intended analysis used in this study.

Table 9.1: The research strategy summarized for this study

<i>Strategy</i>	<i>Aim and Sample</i>	<i>Instrument/Data Source</i>	<i>Method of Analysis</i>
Quantitative pre- and post-test	The aim is to find the relationship between TPACK-LP and students' understanding of atomic structure. Sample: 33 students	Pre- and post-tests scores,	Data from the test scores were analyzed using SPSS one-way repeated measures ANOVA
Qualitative semi-structured interviews	The aim is to quantify the qualitative data to confirm the relationship above. Sample: 4 students.	Structured questionnaires	Looking out for themes that support results obtained from the students' written tests.
Students' work during the Jigsaw Activity	Sample for semi-structured interviews is four randomly chosen students involved in the study.	Jigsaw Activity, teacher's notes and LEAP21 Rubrics.	LEAP 21 assessment rubrics

### 9.4 RESULTS

Data from the test scores were analyzed using SPSS one-way repeated measures ANOVA whereas students’ interviews were analyzed qualitatively using coding looking out for themes that support results obtained from the students’ written tests. The classroom observations were analyzed using the assessment rubrics from the Learning Activity Dimensions of Learning Educators, Advancing Pedagogy for the 21<sup>st</sup> Century (LEAP 21). As shown in Table 9.2, the correlation between the pre-test and post-test scores are 0.699 (above .5), suggesting quiet a strong relationship between them.

**Table 9.2: Results from the Paired Sample T-Test From Year 9AB3 and Year 10AB2**

	<i>Post-test</i>	<i>Pre-test</i>
Mean	45.6	26.1
Standard Deviation	23.2	20.6
Variance	537.1	424.6
Correlation	0.698636	

A single factor ANOVA was calculated to find out the p value, mean scores and eta squared of the samples, as shown in Table 3.

**Table 9.3: Statistical Results of The Study from ANOVA T-Test**

<i>ANOVA: Single Factor</i>		<i>PRE-TEST &amp; POST-TEST</i>				
<i>SUMMARY</i>						
<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>		
post-test	32	1475	46.0938	546.346		
pre-test	32	830	25.9375	437.802		
<i>ANOVA</i>						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	6500.39	1	6500.39	13.2102	0.00057	3.99589
Within Groups	30508.6	62	492.074			
Total	37009	63				
Eta squared	6500.391/37008.98					
Between Groups	0.17564	(Large strength of association)				

<i>Size</i>	<i>eta squared</i>	<i>cohen's d</i>
	<i>(% of variance explained)</i>	<i>SD units</i>
Small	0.01 (1%)	0.2
Medium	0.06 (6%)	0.5
Large	0.138 (13.8%)	0.8

The summarized frequencies of the Code, as shown in Table 9.4, for students work and activities together with their reasons showed that the 21<sup>st</sup> century skills that the students attained are mostly collaboration (Code 3) not Code 4 because students make their own teaching aids, like the working model & PowerPoint slides, shared responsibility because they discuss among in groups.

For the Student's Work Dimension in Knowledge Building, one student get Code 4 because Adli (as shown in Table 9.4) did more than reproduce as he went beyond knowledge production to generate ideas and understanding that are new to him, where he interprets his understanding of atomic structure by analyzing video from YouTube on how to make a working 3D model of atomic structure. No steps or procedure were given on how to build a 3D working model. He devised his own procedure from the video. His 3D model demonstrated atomic structure of lithium. He measured the model (Mathematics) correctly with his own creativity (art), hence its interdisciplinary. CODE 4 whereas the rest code 1 because they prepared PowerPoint slides for the presentation. No steps or procedure were given but not interdisciplinary.

The correlation between the pre-test and post-test scores showed quiet a strong relationship (0.699) between them. The  $p$  value is 0.000567, which is less than 0.05, there is a significant difference in students' understanding of atomic structure before and after TPACK-LP. The mean score before the intervention was 25.94 (pre-test scores) whereas mean scores after intervention (post-test scores) was 46.09. Therefore, this can be concluded that there was a significant increase in students' understanding of atomic structures from pre-test (prior TPACK-integrated lesson) to post-test scores (after TPACK integrated lesson). The guidelines (proposed by Cohen 1988, pp.284-7) for interpreting the effect size using eta squared are .01 = small effect, .06 = moderate effect, .14 = large

effect. Given this research’s eta squared value of .18, indicated a large effect.

**Table 9.4: Summary of Coding and Their Explanations from LEAP21 Rubrics for Both the Learning Activity Dimension and Student’s Work Dimension**

<i>Learning Activity Dimensions</i>					<i>Student’s Work Dimensions</i>			
<i>Code Number</i>					<i>Code Number</i>			
<i>Collaboration</i>	<i>Knowledge building</i>	<i>ICT use</i>	<i>Self-regulation</i>	<i>Real-world problem solving &amp; innovation</i>	<i>Knowledge building</i>	<i>ICT use</i>	<i>Communication</i>	<i>Real-world problem solving &amp; innovation</i>
3	3	3	3	2	1	2	2	2
C3 = 33	C3 = 33	C3 = 33	C3 = 33	C2 = 33	C1 = 30 C3 = 2 C4 = 1	C2 = 31 C3 = 2	C2 = 33	C2 = 33

### 9.5 DISCUSSION

The findings suggest that there is a strong relationship between the TPACK-LP (independent variable) and improvement in students’ test scores (independent variables). The high correlation ( $r = 0.699$ ) is one indicator that students understand the atomic structure concepts in TPACK-LP. This relationship strengthens the constructivist theory of learning where student constructed knowledge based on their experiences in the learning (Yilmaz, 2008). The analysis from the working model in Figure 9.1, produced by Adli showed that he developed deep understanding of atomic structure by building up the 3D model using information he obtained from the internet (YouTube) which showed the procedures in making 3D model using cardboards.

Here, Adli showcased independent learning where he develops constructivist meaning of learning atomic structure as an enjoyable exploratory process of knowledge restructuring (Levin & Wadmany, 2008; Juniu, 2006; Eilks, 2015; Yilmaz, 2008). Thus, the results of this study provide teachers with a background of how to design the curriculum for students’ attainment of the 21<sup>st</sup> century

learning skills and develop higher order thinking skills for the understanding of atomic structures in science using the TPACK framework. Besides that this study will provide the academic evidence of students' achievements in TPACK-LP in Brunei.



Figure 9.1: A 3D model of Atomic Structure made by the student

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## CHAPTER

# 10

## Values and Ethics in Counseling: An Islamic Perspective

*Nik Rosila Nik Yaacob*

### 10.1 INTRODUCTION

Counselling is a professional guidance of the individual by utilizing psychological methods (Corey et. al., 2011). In counselling process, values and ethics are the main aspect shouldn't be undermined by counsellors. Values can be defined as a bridge by which an individual makes a decision regarding good and bad and between right or wrong (Corey et. al., 2011). Ethics is guidelines or rules that are set for a society and based on moral values and virtues. In this regard, ethical codes have been developed for the purpose of setting professional standards for appropriate behaviour, defining professional expectations and preventing harm to clients (ACA, 2014). However, in working with Muslim's client, counsellor need to understand Islamic practices, ethics and values related to counselling (Rasool, 2016).

## 10.2 THE CONCEPT OF ADAB

*Adab* is an arabic word (*addaba; ta'dib*), literally means culture, refinement; good breeding; humanity. *Adab* also means to refine, to educate, to discipline, and chastise (Wehr, 1980). Conceptually *adab* is to denote education as its meaning conveys the process of educating man intellectually, spiritually, and socially as embedded in the hadith, "My Lord educated (*addaba*) me, and made my education (*ta'dib*) most excellent" (Al-Ghazali, 1998). In this hadith, the fundamental element inherent in the concept of education is to inculcate *adab* to individual. Thus, *adab* is about disciplining the mind and soul. It is also about acquisition of good qualities and attributes of the mind and soul so that individual can differentiate between good and bad; right and wrong; and true and false. *Ta'dib* according to Al-Attas (1995) is referred to a 'process of instilling' 'something' into 'human beings' and inculcation of *adab* in man. Three elements inherent in the concept of *ta'dib*, are the human beings, the content and the method in education.

## 10.3 THE CONCEPT OF TA'ADIB

**Human being:** Human being or man is defined as a rational animal. Rationality refers to the reason by which the activity of clarification, discrimination and judgment, occur. The innate faculty that is responsible for articulating the linguistic symbols into meaningful patterns are reason (*al-'aql*). *Al-'aql* is a spiritual substance or rational soul that recognizes and distinguishes the truth from the false and the good from the bad (Al-Attas, 1995). There are two peculiar powers in human body that struggles with each other to control and dominate the human soul. The first, evil in nature that produces blameworthy qualities and vices such as anger, envy, pride and so forth. The second power is naturally good and always inclined to goodness. With this power, good virtues exist, such as wisdom, courage, temperance, and justice (Al-Ghazali, 1998).

**The Content:** The content refers to knowledge (*'ilm*). As human soul from the very beginning has been equipped with the knowledge of God (Surah Al-A'raf, 7:175, in Abdullah, 1989), seeking knowledge

is an important attributes of man. Knowledge in Islam can be divided into; *fard'ayn* and *fard kifayah*. *Fard'ayn* is the knowledge of Oneness of God (*tawhid*) and encompasses the fundamental principles in Islam. This kind of knowledge can be acquired by man through his acts of worship and devotion. Man receives this knowledge by direct insight or spiritual savouring and unveiling to his spiritual vision. This knowledge is referring to the highest knowledge and obligatory (*fard 'ayn*) to every Muslim to learn it (Al-Attas, 1995; Al-Ghazali, 1998).

*Fard kifayah* is the knowledge which is obligatory to some Muslims only. It can be divided into religious and non-religious. The religious sciences are derived from the Prophets (pbuh), while the non-religious are acquired through reasoning and experimentation. This knowledge which can be acquired through intellectual and bodily faculties in man is discursive and deductive (Wan Mohd Nor, 2003). Though knowledge is unlimited, but, in due to man's nature, capacity, lifespan and needs are limited, he hence, needs to limit his personal acquisition of knowledge. It is neither desirable nor possible for an individual to acquire all the sciences. Therefore, this kind of knowledge is obligatory upon only some individuals in the community (*fard kifayah*) and should be guided by the former one (*fard 'ayn*) (Wan Mohd Nor, 2003).

**Method in Education:** Method in education is related to disciplining the physical and spiritual aspects of an individual that involves in acquisition of knowledge and transformation of personality (Nik Rosila, 2011). When knowledge is transferred to man, not only the mind-set changes but also the behaviour and character is affected. The thinking ability will respond to an affective domain and results to the way of doing things. The process of disciplining the physical and the spiritual aspects of man entail spiritual struggle and discipline to achieve purified soul refined character (Al-Ghazali, 1998; Al-Miskawayh, 1968). Once man's soul is purified, he will experience happiness and freedom from any worry resulting from doubt. This soul is called *al-nafs al-Muṭmainnah* Surah al-Fajr, 89:27 (Abdullah, 1989).

**Values and ethics in Counselling: Western and Islamic View:** Two issues on values will be discussed in this section. The first

issue is on materialistic vs. holistic outlook. In the western value system, the successful of individual is based on materialistic accomplishments such as physical fitness, attainment of high social status and material reward. These criteria have been outlined by the theories such as behavioural that emphasized on reward and punishment (Corey et. al., 2011). From Islamic perspective, the concept of holistic growth of human being is encompasses both the material and spiritual aspects (Nik Rosila, 2011). Both spirituality and materialistic activities are not segregated because Islam urges its followers to base their activity after the concept of *'ibadah* (worship) (*Surah al-Dharyyat*, 51:56 in Abdullah, 1989). The concept of worship in Islam (*'ibadah*) permeates all spheres of human activities, mental or physical, individual or collective, material or spiritual. Islam strives for a holistic consonance for a person with God and seeks to develop a total human personality in all manifestations. The main aim is to seek the pleasure of God, for human beings experience their highest actualization once they align their thought and action with God's divine will (Al-Ghazali, 1998; Malik, 2000b).

The concepts related to pleasure, satisfaction and actualization also governed by the two contrasting belief system. A materialist recognized pleasure when worldly targets are achieved. Thus, counselling becomes significant in enhancing goal-oriented ambitions by instilling achievement oriented behaviour. In contrast, Islam introduces the concept of salvation which brings eternal contentment even if individual is destitute in material terms, for material gains are only means of subsistence. A wholehearted effort for advancement is encouraged by a matching commitment for spiritual purification (Mumtaz, 1992; Malik, 1996).

The second issue is about unlimited vs. bounded freedom. The western value of freedom has profound impact on personality development. The worldview of counselling theorist has a common factor in that individual can pursue personal objectives without any religious constraints. As religion and morality are considered as personal matters, individual can choose a course of action within the confine of this freedom (Mumtaz, 1992). Social

problems such as abortion and drugs are just one of the symptomatic expressions of this freedom. Changes of loyalty, lack of commitment and evasion of responsibility are some of the commonly displayed behaviours. Such behaviours naturally have an effect on family and communal life. A whole generation is now being raised without any senses of identity in the name of proclaimed freedom (Mumtaz, 1992; Malik, 2000a). The concept of freedom in Islam is confined in the *shariah* law, whereby limits are clearly outlined for both private and public behaviour. The consciousness that one is being observed constantly and is accountable for every action regulates and action in such a way that the distinction between private and the public life becomes irrelevant (Malik, 1996).

In counselling, ethical dilemmas may arise in issues such as transferring values, conflicting relationships, privacy and so forth (Kamal, 1995). Though there are codes of ethics outlined by the professional organizations (ACA, 2014), however, when working with Muslim clients, adherence to these codes may not be the best option (Rasool, 2016; Kamal, 1995). The ethical dilemma faced by an Islamic counsellor is the fear of their clients of having to support their clients' request for help with choices in life that might be considered in conflict with an Islamic worldview. In the case of abortion and sterilization, western and Islamic perspectives hold different views on the value of patient autonomy and sanctity of life. Both abortion and sterilization are not recommended in an Islamic bio-ethical view as they are interpreted as interfering with reproduction and God's will. The only exception is when the mother's life is at risk, as the mother's life takes precedence over that of the unborn child (Rasool, 2016).

Islam presents a complete code of life highlighting ethical values. The modern ethics in the West became predominantly social in nature, in Islamic societies that power remained social as well as religious (Surah Al-Hujurat, 49:13 in Abdullah, 1989). The *shari'ah* system of law (Islamic jurisprudence) has outlined principles with regard to the ethical conduct of human beings (Kamal, 1995). The first principle is cognition of human dignity endowed by God. The Quran says in, "And indeed we have

honoured the children of Adam” (Abdullah, 1989). Human dignity is an inherent, inalienable and inviolable right of every human being. All human beings must be treated with honour, respect and regard, without distinction of any kind (such as gender, religion or any other status) (Abdallah, 2010). The second principle is peaceful coexistence. Al-Ghazali (Bedoui, 2012) stated that the objective of the *shari'ah* is to promote the well-being of the people, which lies in safeguarding their faith (religion), their self, their intellect, their posterity, and their wealth. Therefore, whatever ensures the safeguard of these five serves public interest and is desirable, and whatever hurts them is against public interest and its removal is desirable.

The third principle is equality of human beings. In this context, justice is considered necessary in social activities and personal conducts. This is in line with Surah an-Nahl, 16:90, “Indeed, Allah order justice and good conduct and giving to relatives and forbids immorality and bad conduct and oppression” (Abdullah, 1989). The fourth principle is striving to do well or excel in doings things well. Such high quality is desired in everything as Allah says, “God enjoins equity and doing well” (Surah An-Nahl, 16:90). The Prophet pbuh said, “Verily Allah has prescribed perfection (*ihsan*) in all things” (Muslim, cited in hadith 40). The concept of *ihsan* is doing everything in an excellent manner and also referred to the act of charity and kind to the weak and poor people (Rasool, 2016).

## 10.4 CONCLUSION

This article has highlighted some important issues related to Islamic values and ethics in counselling. The concept of *adab* has portrayed several aspects in understanding the notion of education in Islam. The three elements in the concept of *adab* is profoundly has a very close connection with the values and ethics in Islam.

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## **A Review on Professional Counselling Service Seeking Attitudes, Risk Factors Associated with Illegal Drug used and the Methadone Maintenance Therapy**

*Cheong Kar Hui, Lau Poh Li and Fonny Hutagalung*

### **11.1 INTRODUCTION**

Methadone has been recommended by the World Health Organization (WHO) as a main strategy to reduce the number of cases of HIV transmission causing by the needles sharing among the drug abuser. After being discovered in 1950's Methadone was being widely used in many parts around the world. However, there is no record of Methadone was being used in Malaysia. There is some effort of bringing in Methadone into the country, but it was being banned by the Malaysia Government in 1972. (Mohamed & Kazar, 2007). In 2005, Malaysia Government has reconsidered the decision of the Methadone as part of the treatment in the drug rehabilitation in Malaysia due to the chronic situation of the substance abuse and HIV infection cases among the drug addicts. The main reason the government introduces the Methadone as a part of treatment is to improve the level health and the live quality of the drug addicts (Kaur , et. al., 2008).

## 11.2 PSYCHOLOGICAL HELP SEEKING ATTITUDE

There are varying reasons influencing a person's attitudes for seeking psychological help or counseling services, depending on the characteristic of the problem, demographic differences and cultural values. Good and Wood (1995) found that men gender role conflicts are strongly related to their attitudes of seeking psychological help with their experience of depression. In another similar research, Fischer and Turner (1970) Women's help-seeking attitudes were consistently more positive than men's ( $p < .0001$ ). Pheko, Chilisa, Balogun and Kgathi (2013) found that positive attitude toward seeking counselling or psychological help positively predicted intentions to seek psychological help. The research also reported that students at the university have a generally low to moderate psychological help-seeking attitudes particular to excessive alcohol used and drug problem.

Thikeo, Florin and Ng (2015) did a pilot study of the relationship of demographic and acculturation factors towards the psychological help-seeking behavior of Cambodian, Laotian refugees and immigrants in the United States of America. The outcome of the pilot study shows that gender was significantly associated with the positive attitude of psychological help-seeking behaviour where women have a higher tendency than men to seek professional help. In another word, women are more open to discussing their mental health issues and have more confident towards the professional psychological services.

## 11.3 THE RISK FACTORS

### Level of Education

Liu (2009) has found that the higher numbers of years of education have a significant relationship on the patient's behaviour of continue using the illegal drug during the treatment program. In his studies, a total of 1003 Heroin addictive patients were recruited from 8 MMT clinics in a province in China. He found that years of education ( $RR = 0.94$ ,  $P = 0.01$ ) were associated with the patient's positive urine test. Hartel, Schoenbaum, Selwyn,

Kline, Davenny, Klei & Friedland (1995) has found that lower education levels ( $\leq 12$  years) were associated with Cocaine used during the Methadone treatment. In the studies, among the 652 Methadone patients included in the analysis, patients who have  $\leq 12$  years of education were associated with the used of Cocaine during the treatment, (adjusted OR = 1.6, 95% CI = 1.0, 2.4) ( $P = .035$ ).

### **Age**

Bertino, (2005) explored the relationship between the Methadone Maintenance Therapy patient's gender, age, Methadone dosage and treatment length of treatment to their treatment outcome (the behavior of continuing using the illicit drug during the treatment period). Bertino, (2005) has found that the younger age of the patients, the higher usage of cocaine. The higher dosage of Methadone suggested that benzodiazepine were used. (Condelli, 1993) found that the age was the only variable which directly affected the retention behavior of the patients to stay in the treatment program. (Condelli, 1993) also found that the patient's with 20's years old or younger most likely to drop out from the treatment program than other older patients.

### **Methadone Dosage**

When the dosage of Methadone is correct and stable, it will help the user to prevent the withdrawal symptoms effectively. (Mohamed & Kasa, 2007). So it is crucial that the accurate dosage of Methadone given to the consumer and it is a very vital variable to take into the attention. Wang, Ding, Bai, Duan, Yang & He (2015) conducted a research on illegal heroin and methamphetamine usage among MMT participants in Dehong Prefecture of Yunnan Province, China found out that the sophisticated treatment of heroin users and underscore the importance in prescribing appropriate methadone dosages to decrease heroin and Methamphetamine usage. In the sum of 2,121 respondents take part in the research, 220 (10.4%) were only positive for morphine, 12.9% were only positive for Methamphetamine, and 196 (9.2%) were positive for both morphine and Methamphetamine. During the MMT treatment period, both heroin and methamphetamine, heroin used was

associated with ethnicity, shorter duration of MMT, the lower dose of methadone.

Baumeister, Vogel, Dürsteler-MacFarland, Gerhard, Strasser, Walter & Petitjean (2014) had done a research on Association between methadone dose and concomitant cocaine use in methadone maintenance treatment. They found out that the usage of Cocaine in the Methadone Maintenance Therapy patients may be associated with heroin used and indicates the importance of prescribing the correct dosage of Methadone in order to reduce the illegal drug used during the therapy. The result showed that a significant difference in self-reported cocaine use between groups ( $p < 0.001$ ). The participants in the lower dosage group reported significantly fewer cocaine consumption days compared to the medium dosage group ( $p < 0.001$ ) and the higher dosage group ( $p < 0.05$ ). Patients in the higher dosage group reported significantly fewer heroin used days than those in the Lower dosage group ( $p < 0.01$ ) and the medium dosage group ( $p < 0.001$ ).

Bertino, (2005) has found that Methadone dosage has a significant relationship towards the illicit drug usage. The higher Methadone dosage predicts a higher chance of Benzodiazepine used. In this study, a total of 301 patients in the clinic who are in the current treatment 6 months or more were tested

### **Marital Status**

Brienza et. al., (2000) did a research on comparing the prevalence of depression in two cohorts of injection drug users, those who enrolled in a Needle Exchange Program and a Methadone Maintenance Therapy Program. By using cross-sectional interview, 528 persons interviewed. 42% of those have met the criteria for depression. The research has found that a person without a current partner (OR 1.8; 95% CI 1.2-2.6) is more likely to be depressed controlling the age, race, education and HIV status. Liu, (2009) did a research on the risk factor of continuing Heroin used during Methadone Maintenance Therapy in a province in China. In the research, (N = 1003) Heroin addicts in eight different MMT clinics recruited and followed up for 14 months. By using the Generalize Estimation Equation model, he found that the marital status (Divorced,

RR = 1.08; 95%CI = 0.75 – 1.54) ( $P = 0.70$ ) and (Married RR = 0.82 95%CI = 0.60 – 1.12, ( $P = 0.22$ ) has no significant association with the positive urine of the patient.

#### **11.4 PURPOSE OF COUNSELING IN METHADONE MAINTENANCE THERAPY IN MALAYSIA**

In order to increase the effectiveness of Methadone Maintenance Therapy, the Ministry of Health, Malaysia has introduced counseling services to the participant of the therapy. According to the Ministry of Health the primary purposes of introducing counselling service to the patients of Methadone Maintenance Therapy are, (1) Ensure that patients understand the Methadone Maintenance Therapy, (2) Improving patient compliance with taking Methadone syrup, (3) Provide information regarding possible side effects experienced by patients while taking Methadone syrup, (4) Provide information to patients about the dangers of taking Methadone Syrup together with drug/other drugs, (5) Provide information related to the patient dose, 'take back', missed doses and overdose and (6) Other personal care (self-care) related to the patients.

#### **11.5 OVERVIEW RESEARCH ON METHADONE MAINTENANCE THERAPY IN MALAYSIA**

In a research article by Musa, Ramli, Zafri, Junid & Hatta (2012), focuses on the associated risk factors to Non-compliance to MMT. The study was conducted in one of the health care centre in Malaysia and the total of  $N = 172$  participants included in the study. The researcher found that unemployment ( $P = .001$ ), low quality of life score ( $P = .039$ ) and low methadone dosage ( $P = .009$ ) were the risk factors associated with the Non-compliance with Methadone Maintenance Therapy.

Mohamed and Kasa (2007) conducted a study on the success and limitations of the Buphrenorphine and Methadone maintenance programs in Malaysia. The main focus of the study are (1) is the practitioner is in compliance with the guidelines set by the Ministry of Health (2) the number of patients who participated

in the program (3) the psychosocial prevention and (iv) record keeping. The researchers also conducted a structured interview on the addicts who use the channels of medical practitioners to obtain the buprenorphine or methadone. The results of this research have found several medical practitioners violating the guidelines that have been set and half of the respondents are reported abused the therapy by injecting or mix it with other illegal substance.

Next, in a research article by Baharom, Hassan, Ali & Shah (2012), they investigate the improvement of the quality of life following 6 months of methadone maintenance therapy in Malaysia and the factors may be related to changes in their quality of life. In the study, 122 participants from 2 government MMT clinics were chosen for the research. The result had shown that there is a significant improvement in all four domains of quality of life (1) physical, (2) psychological, (3) social relationships and (4) environment. Furthermore, the study found that having tertiary education is a significant predictor for improvement in both psychological and social domain aspects of quality of life. Negative HIV status is also associated with progress for the environment domain.

Mohamad, Bakar, Musa, Talib & Ismail (2010) investigated the retention rate of the Malaysian opiate dependents treated with high-dose methadone in methadone maintenance therapy. The study has the objective of determining the utility of daily methadone dose to predict the retention rates and relapse behavior among opiate dependents. Only 35 (54.69%) respondents remained active and 29 (45.31%) were inactive at 6 months of treatment. The result has shown the higher doses of methadone  $\geq 80$  mg/day are significant correlates with the retention rate ( $p < 0.0001$ ) and re-injecting or relapse behavior ( $p < 0.001$ ).

## 11.6 CONCLUSION

In conclusion, the concern for MMT has been receiving attention from researchers in Malaysia. Since the start of MMT in Malaysia in 2005, researchers have begun to study the impact and outcome on the MMT Methadone users. The pattern of recent study is mainly focusing on the quality of life of the Methadone users,

the compliance and retention rate of the programme. Although considerable research documenting the outcome of the MMT programme, limited research has been done concerning the risk factors that associated with the Methadone user who continue using illegal drug during the period of the treatment programme. It would be fruitful to pursue further research to identify the risk factors or the higher risk group so the relevant party or MMT service provider to improves the effectiveness of the programme. Proceeding from here, in order to have a better understanding of the MMT programme in Malaysia, more research needs to be done so that the knowledge about the effectiveness of the MMT program can be seen more noticeably.

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## Professional Credential and Job Satisfaction of Malaysian School Counsellors

*Ooi Pei Boon, Wan Marzuki Wan Jaafar and Maznah Baba*

### 12.1 INTRODUCTION

Professional identity development among counselors and counselor educators has been receiving vast attention in the past years. Counselor credential is closely related to the professional identity of a counselor. In Malaysian context, the counselor credentialing involves a licensure and it is governed by law as stated in the Counselor Act 1998 (Act 580; 2006).

Professional identity is defined as the way counselors' function, together with the way the counselors act (Machorro & Suck, 2014). As stated by Gibson, Dollarhide & Moss (2010, pp. 23-24), the successful integration of personal attributes and professional training in the context of professional community would be deemed appropriate to be defined as having obtained professional identity. The certified counselor status predicted the sense of professional confidence (Chu & Sung, 2013) and thus generated a greater sense of professional identity (Darcy & Abed-Faghri, 2013).

Historically, job satisfaction was being studied and correlated with organizational commitment. In predicting employees attribute, numerous studies debated on various facets of job satisfaction, for examples, absenteeism, turnover intention (Mahdi, Mohd Zin, Mohd Nor, Sakat, & Abang Naim, 2012), performance (Edwards, Bell, Arthur & Decuir, 2008) and organizational commitment (Srivastava, 2013). However, research by Ismail (2012) and Yeşilyaprak and Boysan (2015) research in the Malaysian context revealed mixed findings.

Research efforts are lacking in identifying the association and/or differentiation between Malaysian school counselors' professional credential status and job satisfaction, despite reports indicating that counselors who worked hard for their licensure demonstrated a higher sense of professional competency, greater sense of self-respect, and perceived their work as more important as compared to those who invested less in obtaining the counselor credential (Meyer, Sweeney & White, 2002).

In a nut shell, there is an urgent need to study and examine the difference between school counselors' professional credential status and job satisfaction. Thus, this study has two folds: (1) to examine the difference between school counselors' professional credential status and job satisfaction and (2) to illustrate the reasons for a lack of desire in obtaining the professional counselor credential under the governing body.

## **12.2 MATERIALS AND METHODS**

### **Procedure**

This study was conducted across the 14 states in Malaysia with a pilot test. Participants were selected via a simple random fishbowl technique through a list from the portal of Education Management Information System (EMIS). In total, 541 counselors responded and the responses were treated ethically and anonymously. In this study, the licensure status is defined by the status of registration one obtained from the Malaysia Board of Counselor (MBC) in accordance with the criteria set and stipulated in the Law of Malaysia, i.e., Counselor Act 1998.

## Measurement

The sense of job satisfaction experienced by the school counselors was assessed by using the Minnesota Satisfaction Questionnaire, short-form, (Weiss, Dawis, England & Lofquist, 1967). It consists of 20 items and runs on a five-point Likert scale with responses varying from 1 (very dissatisfied) to 5 (very satisfied). There are 12 items (intrinsic scale), six items (extrinsic scale) and 20 items for general satisfaction (sum of items from intrinsic and extrinsic scales and additional two items; item 17 and 18). The internal consistency reliability coefficients reported was .850 with the intrinsic satisfaction of .906 and the extrinsic satisfaction of .812, respectively.

### 12.3 RESEARCH OBJECTIVES

The research objectives are:

1. To examine the difference between school counselors' professional credential status and job satisfaction
2. To examine the difference between school counselors' professional credential status and job satisfaction sub-dimensions (intrinsic and extrinsic)
3. To illustrate reasons for not obtaining the counselors' professional credential.

### 12.4 RESULTS

Five hundred forty-one counselors (421 females; with an average age of 39.34 years,  $SD = 8.89$ ) participated in this study. Of the 541 participants, 243 participants (44.91%) are registered counselor.

**Table 12.1: The Mean and Standard Deviation of Variables**

	Registered			Non Registered		
	N	Mean	SD	N	Mean	SD
Job Satisfaction	243	81.21	10.16	298	78.20	11.05
Intrinsic Satisfaction		49.42	6.549		47.27	6.847
Extrinsic Satisfaction		23.53	3.553		22.88	3.727

Independent sample *t*-test was conducted. A significant difference was found within the group,  $t(539) = -3.277, p < .05$ .

Registered counselors experienced greater job satisfaction ( $M = 81.21$ ,  $SD = 10.16$ ) than non-registered counselors ( $M = 78.20$ ,  $SD = 11.05$ ). The research finding coincides with the study by Ooi, Wan Jaafar & Baba (2014) which reported that registered counselors with the MBC reported a higher level of job satisfaction, self-perceived employability, professional commitment and career success.

Further study was conducted on subdomains - intrinsic and extrinsic satisfaction. A significant difference was reported between registered and non-registered counselors and extrinsic satisfaction, within the group,  $t(539) = -2.052$ ,  $p < .05$ . The mean of extrinsic satisfaction reported for registered counselors was 23.53 (S.D. = 3.553) and mean reported for non-registered counselors was 22.88 (S.D. = 3.727). The difference between registered and non-registered counselors and intrinsic satisfaction was also studied and a significant difference was found within the group,  $t(539) = -3.705$ ,  $p < .001$ . The mean of intrinsic satisfaction reported for registered counselors was 49.42 (S.D. = 6.549) and mean reported for non-registered counselors was 47.27 (S.D. = 6.847).

The finding was consistent with a previous study by Judge, Piccolo, Podsakoff, Shaw & Rich (2010) where intrinsic satisfaction was found to better fulfil a person's desire and bring more meaning to work as compared to extrinsic satisfaction factor such as employment remuneration (pays) and pays satisfaction one perceived. It is interesting to note that the total mean score of intrinsic satisfaction, for both registered and non-registered counselor, is much higher as compared to extrinsic satisfaction. Intrinsic factors were cited as more prominent in predicting job satisfaction than extrinsic factors (Oliveira, 2011).

**Table 12.2: Reasons of not registered under the Act 580**

<i>Variables</i>	<i>N</i>	<i>%</i>
I do not see the needs	64	21.47
I am not interested in it	60	20.14
My degree is in another area	51	17.12
I am not aware of it	25	8.38
It is not required by my school	23	7.72
It is too stressful	13	4.36
Others	62	20.81

Table 12.2 illustrated that 298 participants did not register under the Act 580 with reasons. Other reasons include (1) missed interviews, (2) pending school approval and (3) seeking funding.

## 12.5 DISCUSSION

From the finding, the sense of job satisfaction is higher for those who have obtained licenses from the MBC. The professional credential which comes in the form of counselor credential does show significant difference with the total score of job satisfaction as well as both the sub-domain of job satisfaction.

To promote a sense of professional identity, this requires longitudinal study and research. Research will help to shape the professionalization of school counselling and improve the professionalism of school counselors (See & Ng, 2010) thus injecting a sense of confidence among the clients.

From the response rate reported, there are gaps between the counselors and school administrators. Twenty-five (25) participants reported that they are unaware of the Act and acknowledged the need to register, whereas twenty-three (23) participants reported that such requirement is not a must in their schools. This indicates that the authority of the school system is unclear with the enforcement and the existence of the Act. The unregistered school counselors are unable to testify in court and therefore would fail in providing comprehensive services to the clients. Not only does the identity of the counselor is not clearly established in a school setting, the small number of registered counselors among the school counselor population also reflects the ignorance of the school counselors in promoting one of the main five principles of counselling – “above all do not harm”. It is not the legislative requirement that we are concerned about, but the ethical responsibility that each counselor should be accountable for.

The counselor educators play vital roles in mentoring (Jones, Hohenshil & Burge, 2009) and ensuring the syllabus, requirement, training and curriculum are sufficient and adequate for the graduates of these courses to apply and be eligible for the licensure. Currently, each application to MBC costs RM100.00 and renewal

is required every two years and it costs another RM200.00. The fee may be viewed as the constraint to the counselors, so schools may also consider absorbing the fees paid by each school counselor under the jurisdiction of the Parent Teacher Association or *Persatuan Ibu Bapa dan Guru* (PIBG). Counselors shall be encouraged on professional and personal development (PPD) by continuing education. The evidence of such continued effort, such as attending programs, or short courses or reading related books, could be used as a deciding factor in the renewal process instead of sole requiring fee. A similar process is being adopted by the American Board of Hypnotherapy (ABH, 2015).

## 12.6 CONCLUSION

As the job satisfaction shows differences with the professional credential status, the regulatory body's role in educating, promoting, enforcing and monitoring the counselors' status is vital and unavoidable. To develop the counselor professional identity, it is imperative for counselor educators to promote greater awareness of personal and professional programs and activities. These could include affiliation, certification and membership with a professional body such as the MBC and/or the American Counselling Association (ACA). The counselor credential with a regulatory body may set as the first step in crafting, shaping and promoting the professional identity of school counselors in Malaysia.

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**THEME**

**3**

**Life Challenges  
and Coping**



## **Evaluation of “Fun and Fit with Baby” Exercise Programme on Individual Psychological Well-Being**

*Halijah Ibrahim, Asha Hasnimy Hashim, Zainal Abidin  
Zainuddin and Diyana Zulaika Abdul Ghani*

### **13.1 INTRODUCTION**




Wellness or well-being has been used towards a more holistic perspective of health rather than towards the mere notion of being free from illness (Miller and Foster, 2010) or injury. Corbin and Pangrazi (2001) defined wellness as a multidimensional state of being in a positive health, as exemplified by the quality of life and a sense of well-being. The dimensions of wellness include the physical, emotional/psychological, social, intellectual, spiritual, occupational (Hettler, 1976; Adams et. al., 1997), environmental (Anspaugh et. al., 2004, Hales 2005, Travis & Ryan 2004), cultural, and economical aspects (Dolan et. al., 2008). Physical wellness is a combination of beneficial physical activities, nutrition, and self-care (Foster and Keller, 2007), as well as cardiovascular fitness, flexibility, and strength (Miller and Foster, 2010). Emotional or psychological wellness is related to experiencing satisfaction, curiosity, and enjoyment in life (Renger et. al., 2000).

Performing regular physical exercise has been reported to benefit physiological (physical) and psychological (emotional) well-beings. It has been long known that physical exercise is associated to the reduction of coronary-prone behaviour (Blumenthal, Williams, Williams, Wallace, 1980) and cardiovascular risk factors (Chen, Ismail & Al-Safi, 2016; Grant, Todd, Aitchison, Kelly & Stoddart, 2004). A review analysis on exercise and well-being also suggests that physical activity, exercise, and related physical activity/exercise interventions have beneficial effects across several physical and mental-health outcomes (Penedo and Dahn, 2005). Previous studies have attested that exercise can reduce depression and anxiety (Rebar, Stanton, Geard, Short, Duncan & Vandelanotte, 2015) and increase mood (Duncan, Clarke, Birch, Tallis, Hankey, Bryant & Eyre, 2014).

Nevertheless, several studies have indicated the declination of involvement in physical activity and exercise across the transition to parenthood (McIntyre & Rhodes, 2009; Mailey, Huberty, Dinkel & McAuley, 2014) and among working parents (Mailey, Huberty, Dinkel & McAuley, 2014). In general, working parents have reported several factors that have hindered them from prioritising physical activity after having children, such as (1) family responsibility, (2) the feeling of guilt for spending time to exercise than to be with children or spouse, (3) the lack of community support, and (4) scheduling constraints (Mailey et. al., 2014). Furthermore, many women have substantially gained weight which has then led to the development of obesity (Gunderson, 2009), particularly during pregnancy and postpartum period (Izumi, Manabe, Uematsu, Watanabe & Moritani, 2016; Cheng, Walker, Tseng & Lin, 2011). The childbearing years have also contributed to weight retention (Izumi, et. al, 2016; Gunderson, 2009). Therefore, an exercise program for parents should be organised to promote physical activity and exercise to maintain or increase individual well-being among them, especially among mothers.

Nowadays, the internet had spread a new parenting culture of traditional child care practice, which is to “babywear” a child be attaching him or her to the mother of father’s (or caregiver’s) body (Russell, 2015). Babywearing is a way of carrying a baby either at the

front, side, or back of the body with a specially designed soft carrier, sling, or wrap (see Figure 13.1). This practice gives more chance for the mother to have close physical contact with her child while doing chores. Babywearing is also believed to enhance bonding, reduce crying, and promote healthy emotional development (Australian Breastfeeding Association, 2017; Anrig, 2013).

		
<p>Front of the body Image source: <a href="https://www.parentingresources.org/collections/babywearing-classes">https://www.parentingresources.org/collections/babywearing-classes</a></p>	<p>Side of the body Image source: <a href="https://wherewewear.com/2013/11/06/887/">https://wherewewear.com/2013/11/06/887/</a></p>	<p>Back of the body Image source: <a href="http://abckidsinc.com/great-baby-wearing-forums-and-facebook-groups/">http://abckidsinc.com/great-baby-wearing-forums-and-facebook-groups/</a></p>

**Figure 13.1: Basic position ‘wearing’ baby on the body from the right side view**

The popularity of the traditional babywearing practice has also been increasing in Malaysia following the increased number of registered NGOs related to babywearing (eg., Tebrau Babywearer) and Whatsapp group. These organisations were registered for fewer than five years, yet they had conducted many activities through the years. Their main activity is related to educating mothers on wearing the baby. Furthermore, studies on babywearing are also increasing among Malaysian researchers. Among the studies are those related to oxygen consumption (Nurul Aimy, Asha Hasnimy, Halijah, Zainal Abidin, 2014), energy expenditure (Shahmierul Afieda, Asha Hasnimy, Halijah, Zainal Abidin, 2014), and comfortable feeling while wearing the baby (Siti Rabiatul Adawiyah, Zainal Abidin, Asha Hasnimy, Halijah, 2014).

The internet has also spread the possibility of wearing a baby while participating in ballet (<https://wrapyourbaby.com/babywearing-ballet/>) and yoga (<https://wrapyourbaby.com/babywearing-yoga/>). Therefore, members of the Tebrau Babywearer requested an exercise program that was suitable for them. Subsequently, a series of five exercise programs known as “Fun and Fit with Baby” (Figure 2) were conducted to a group of mothers. The five programs were fat loss, cardio, posture and balance, core and pelvic, and muscle toning. The purpose of this article is to report the effectiveness of “Fun and Fit with Baby” on individual psychological well-being.



Figure 13.2: A poster promoting the “Fun and Fit with Baby” exercise program

## 13.2 RESEARCH METHODS

### Participants

This study involved three groups of participants who were involved in the “Fun and Fit with Baby” exercise program. The participants consisted of 21 physical education teacher trainees (PETT) group, 12 pairs of mothers with babies (MWB) group, and 14 other children

(OC) group who were following their mother to the program. The PETT group served as the facilitator and organiser of the "Fun & Fit with Baby" exercise program. The MNB group consisted of the participants of the "Fun & Fit with Baby" exercise program. The OC group was not involved in the program but was merely undergoing other physical and learning activities conducted by the PETT group.

### **Methods of Data Collection**

Data were collected from the five series of exercise program. Direct and continuous observations were made by two trained observers on the PETT groups while the latter were conducting the exercise program for the MNB group and the physical and learning activities for the OC group. Direct observations were also made on the MNB group and the OC group as they participated in the planned exercise/physical/learning activity.

The direct observations gathered two types of data: (a) related behaviour in participating the exercise program and (b) related behaviour in doing personal activities (eg. calming the baby, breast feeding, etc.). Other than direct observation, the MNB group was also given an exercise evaluation form at the end of each exercise session. As for members of the PETT group, they were required to submit at least two pages of self-reflection in organising the "Fun and Fit with Baby" exercise program. This group was also required to fill a peer-evaluation form. Although much data were collected, this article discusses only the data related to the direct observation and exercise evaluation form of the MNB group.

### **Exercise Programme**

The "Fun and Fit with Baby" was conducted for two hours for five consecutive weeks at an indoor exercise room. The exercise program consisted of five types of exercise: balance and posture exercise, muscle toning exercise, fat loss exercise, core and pelvic muscle exercise, and cardiovascular exercise. The facilitators of the PETT group were divided into five groups, and they were responsible to develop the exercise module and conduct the exercise program based on the developed module for the assigned week. The other groups that were not involved in the exercise program



were responsible to plan and conduct physical and learning activities for the OC group.

### Data Analysis

The quantitative data collected from the exercise evaluation form were analysed using percentage and mode. The direct observation notes were collected, sorted, categorised, and summarised. The overall process of research activity is shown in Figure 13.3.

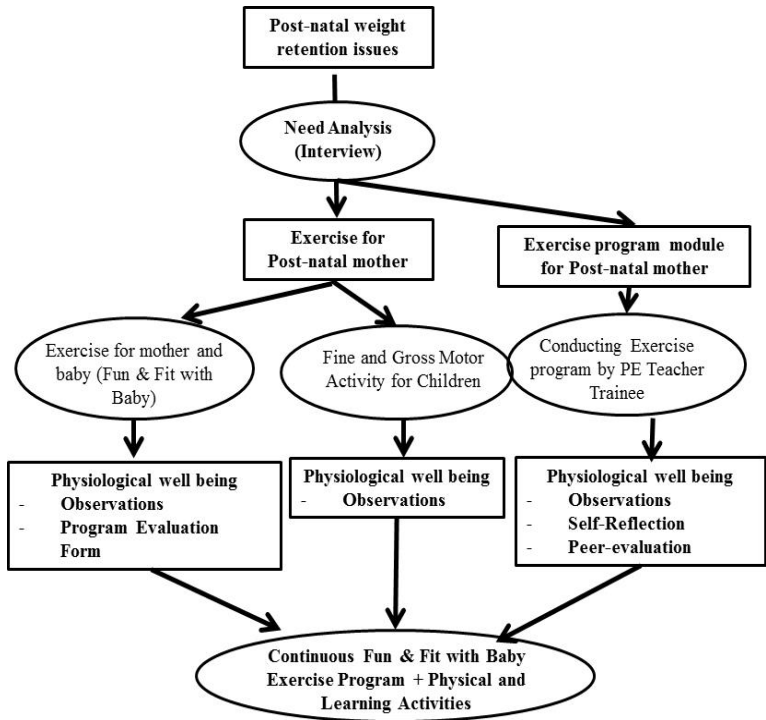


Figure 13.3: Issue, Research Activities and Data Collection in the 'Fun & Fit with Baby' Exercise Program

## 13.3 RESULTS

### Characteristics of Participants

The participants consisted of three groups: the physical education teacher trainees (PETT), mothers with babies (MWB), and other

children (OC) who were following their mother to the program. The PETT and MWB groups were entirely involved in the exercise program as the facilitators and participants, respectively, whereas the OC group was involved in other physical and learning activities. Table 13.1 provides the basic information of the participants.

**Table 13.1: Characteristics of the Participants According to Group and Role in Exercise Programme**

<i>Group of participants</i>	<i>Role in the program</i>	<i>Number of participants</i>	<i>Age (years)</i>
Physical Education Teacher Trainees (PETT)	Facilitated and conducted the 5 types of exercise: cardiovascular, posture and balance, muscle toning, core and pelvic muscle, and fat loss.	Male = 13 Female = 8 Total = 21	23 to 27
Mothers and Babies (MWB)	Participants who actively participated in the 5 exercise program conducted by the PETT group	12 pairs (12 mother and 12 babies)	Mother = 27 to 35 Babies = 6 month to 3 years old
Other Children (OC)	Following the mother to the program and were involved in other physical activities conducted by the PETT group	Boys = 8 Girls = 6 Total = 14	4 to 12

## Program Evaluation

A program evaluation was given to the mother group (MWB) to evaluate the effectiveness of the program because this group was the target group for the program. Table 13.2 presents the number and percentage of responses related to the effectiveness of the exercise program, as obtained from the evaluation form. Overall, the MWB group members were satisfied in participating in the exercise program, which they considered were suitable for their needs, as described in their written comments.

## Qualitative Themes Identified

Twenty-one members of the MWB group wrote comments on the open-ended section in the Program Evaluation Form. The open-ended comments could be divided into three main themes, two of which addressed the positive aspects and one of which addressed

**Table 13.2: The Number and Percentage of Responses on the Evaluation Form**

<i>Description</i>	<i>Very dissatisfied</i>	<i>Dissatisfied</i>	<i>Neither</i>	<i>Satisfied</i>	<i>Very satisfied</i>
1 The effective of the facilitators	0	0	3 (8.1)	13 (35.1)	21 (56.8)
2 Learning difficulty level	0	0	6 (16.2)	12 (32.4)	19 (51.4)
3 Suitability of activities	0	0	5 (13.5)	6 (16.2)	26 (70.3)
4 Movement demonstration	0	1 (2.7)	3 (8.1)	10 (27.0)	23 (62.2)
5 Suitability exercise with babywearing position	0	0	1 (2.7)	9 (24.3)	26 (70.3)
6 Knowledge trough participating in exercise	0	0	1 (2.7)	12 (32.4)	24 (64.9)
7 Personal assistance	0	0	1 (2.7)	10 (27.0)	26 (70.3)
8 Feeling freedom on exercise	0	0	0	4 (10.8)	33 (89.2)
9 Suitability of space and equipment	0	0	2 (5.4)	4 (10.8)	31 (83.8)
10 Satisfaction on the exercise program	0	0	1 (2.7)	7 (18.9)	29 (78.4)

the negative aspect. The positive aspects were the feeling of enjoyment in participating in the program and suggestions for the participants to continuously conduct the exercise program. The negative aspect was about time management.

### **Addressing Enjoyment Feeling**

About 75% (8/12) of the participants commented that they were happy and having fun in the exercise program. They appreciated the assistance given by the facilitators during the program. The following excerpts imply this matter:

*“Fasi sangat friendly.”* (appreciate the assistance)

*“It’s fun! Keep it up.”* (having fun)

*"Keep it up the good work!"*

*"Seronok dapat menjalankan aktiviti bersama bayi, keep it up! Good job! (draw happy face)" (feeling happy)*

*"Good job."*

### **Suggestions for Continuous Program**

The second theme identified from the open-ended comments is the suggestions for the participants to continually conduct the exercise program. More than half of the participants (58%) (7/12) hoped that the exercise program will continue in the future. Some participants suggested that program be conducted from time to time, or particularly as a weekly program. This view was implied in the following comments:

*"Semoga aktiviti ini diteruskan dari semasa ke semasa."*

*"Moga ada program sebegini masa akan datang."*

*"Keep up the good work! Boleh buat sebagai aktiviti mingguan untuk para ibu-ibu."*

*"Diharap program seperti ini diadakan dari semasa ke semasa untuk meningkatkan kesedaran untuk bersenam."*

### **Time Management**

The negative aspect related to time management has been raised by one participant. She did enjoy participating in the exercise program, but she understood that the program was delayed due to the late attendance of other participants. This situation had occurred due to the traffic congestion for the "Kembara Johor Program," which was held on the same day. Below is her comment:

*"Seronok! Cuma masa mula aktiviti lambat dari perancangan. Peserta kena datang on time. Good job."*

### **Direct Observation on Participants' Behaviour**

The direct observations were focused on (a) the related behaviour in participating the exercise program and (b) the related behaviour in doing the personal activities in the exercise session. The observations uncovered that the participants (the MWB group) had shown the

eagerness and excitement at the beginning, the willingness to support others during the program, and satisfaction at the end of the exercise program. During the program, the participants did not hesitate to withdraw and be involved again in the program when it is necessary. Besides calming the baby and breast feeding, the participants also chose to rest or take a break when feeling tired or unable to follow the exercise routine. Figure 13.4(i) and (ii) show the willingness the MWB participants in participating in the exercise program.



(i)



(ii)

Figure 13.4: (i) and (ii) Picture of MWB group participating in the exercise program

### 13.4 DISCUSSION AND CONCLUSIONS

Macrae (2016) concurred that women's access to exercise and sport is influenced by their life-cycle stages of marriage and

motherhood. This phenomenon has a major impact on the physical and emotional well-being of women. Issues including weight retention have become a concern as these situations contributed to other health issues. Therefore, an awareness on the importance of physical activity and exercise may assist women in seeking physical and psychological well-being. A continual exercise program as requested by the MWB group in this study shows the demand of a “family-friendly” program (Mulvaney, 2011).

The exercise program for women and the current trend of babywearing should be tapped and utilised to reduce the obesity issues that arose from childbearing constraints (Gunderson, 2009), especially among working mothers (Mailey, Huberty, Dinkel & McAuley, 2014). These measures will also promote a healthy lifestyle. An appropriate environment provided in an exercise program that caters to motherhood needs, such as physical and learning activities for the OC group, has encouraged mothers to participate in the exercise program. As mentioned by Whiteman-Sandland, Hawkins, and Clayton (2016), available facilities including “creche” have become important elements in increasing attendance to an exercise gymnasium. Overall, the exercise program in this study, which was conducted among mothers who babywear, has shown a positive psychological well-being.

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## Motivations of Orang Asli Children in Learning Science and Mathematics

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### 14.1 INTRODUCTION

Human capital is the key driver of growth in the knowledge-based economy and determines the competitive position of the nation. The Malaysian government emphasized on learning in Science, Technology, Engineering and Mathematics (STEM) to achieve the developed nation status by 2020. Several initiatives made, which include the increase in allocation for education sector, and the increase in the interest and awareness of students in STEM fields. In the global context, Malaysia has joined the global STEM Alliance, which is an initiative of the New York academy of Sciences in September 2014. Malaysia targets 60 per cent of children and youth to pursue education and careers in STEM for the country's better future.

In order to create a critical and innovative thinking, and thus, contribute to the development of the country, the Malaysian government has been involved in several initiatives such as

(i) improving the country's education system by increasing the allocation to the education sector; (ii) increasing the interest and awareness of students in STEM fields; and (iii) getting the country to be involved in STEM activities globally.

The government of Malaysia has also taken the responsibility to ensure that Orang Asli children are not left behind in education. However, issues surrounding Orang Asli community, specifically on education are still glaring. Students lagging in academic performance with high dropout rate compared to the overall academic performance throughout the nation are a common problem (Nor et. al, 2011). These can be contributed by both internal and external factors. Needless to say that the problems experienced do not exclusively rise from student factors but also from the delivery system, involving teachers and others responsible for the education and welfare of these children (Nor et. al., 2011). Students' internal factors, such as lack of self-belief, may affect their confidence level in many aspects (Haron et. al., 2014). Expecting these children to perform academically well, or at par with the others from around Malaysia has been a big hurdle.

## 14.2 SOCIAL RESPONSIBILITY

Universiti Teknologi Malaysia and Women Engineers Section of The Institution of Engineers Malaysia (IEM-WE) seize the responsibility to investigate the situation on the ground. As one of its first activities, a Kampung Orang Asli was visited, first in December 2013. Discussions with *Tok Batin* (the village head), his wives, and volunteers from a non-government organization who had been looking after the villagers' religious welfare since the village first inception, took place. The team was introduced to the village head, and objectives of the project were discussed. The subsequent activities with the children from Kampung Orang Asli Ulu Kuang, were done in February and May 2014, and followed by another in December 2015.

Needs analysis was carried out during the Chinese New Year festive season in February 2014 at the village. The objectives of the activities were to establish a good rapport, introduce other cultures

(in particular Chinese, Islamic and Malay), assess students' reading, communication, team working, mathematical and problem-solving skills. The team also sets-up a library with donated books to create the love-for-learning conducive environment.

Understanding the influence of exposure to the outside world that may bring positive impacts to the Orang Asli children (Nor et. al., 2011; Haron, 2015), the researchers organized educational and motivational activities at two universities for the children from Kampung Orang Asli Ulu Kuang in May 2014. The participants were transported to Universiti Teknologi Malaysia Kuala Lumpur, a public university, and Taylor's University, privately run. The students had the opportunity to tour the universities' laboratories and workshops, and were given motivational activities to appreciate that learning mathematics and science are beneficial and useful. The activities are designed to expose them to the many opportunities in engineering that can benefit humanity, attract them, especially the girls, to pursue an engineering course and also career in engineering.

Meanwhile, the activities in December 2015 were carried out during the school holidays, with the following objectives:

1. To identify the academic achievements in Malaysian major National examinations.
2. To evaluate the motivation status in STEM among the children who had participated in IEM-WE activities.

The following sections describe the activities during the December 2015 visit.

### **14.3 MATERIALS AND METHODS**

The study is mainly carried out through observations and interviews, supported by questionnaires. A group of children from the Kampung Orang Asli Ulu Kuang, Selangor, was the participants of this study. This was a longitudinal study carried out under a collaboration work between IEM Women Engineers Section, Universiti Teknologi Malaysia and Taylor's University with volunteers from Universiti Islam Antarabangsa Malaysia, MRSM Parit, Kolej Mara Banting and ADNI Islamic School.

## 14.4 DISCUSSION

The team gathered about 20 children from the Kampung (village), age ranges from 7 years old to 17 years old. There were 25% Primary 3 children, followed by 15% Primary 4, 10% each of Primary 5 and Secondary 4, with the rest a mixture of the other levels. The number of Secondary school children who turned up was only 25%, of which they were all girls and had participated in all previous WE activities, except for 1 new participant. Out of the total 20 participants, 30% are boys, of which 2 of them had participated in two of the programs organized. Including 2 other Primary school girls, there was a total of 50% of the children who had participated in the activities.

During the activities in December 2015, the key objectives were to follow-up on the children's academic performance and motivation status. Our first activity for the day was distributing the survey forms to the children. IEM-WE volunteers had helped in guiding some of them on how to fill in the survey forms. Some of the boys who were unable to read and had difficulty to spell some words were supervised by our volunteers. From the data collected, all of the participants except for 1 person who had been attending our programs claimed that the programs had inculcated their interest in Science related subjects. However, only 1 person intended to have a profession related to science, in particular to be a Mathematics teacher. Looking at the group as a whole, almost 80% of them stated either Mathematics and/or Science as their top 3 favourite subjects at school.

There were two different levels of major National examinations that two of the participants were involved in since we started our activities with them. The examination results were obtained in 2015. One of the girls did her upper secondary National examinations (Sijil Peperiksaan Malaysia - SPM), and the other girl sat for the primary level National examination (Ujian Penilaian Sekolah Rendah - UPSR). The detail SPM results were not available for us because the girl had moved away from the village. However, the UPSR candidate had passed and obtained C for both Science and Mathematics subjects. This is considered an achievement.

The other analysis was based on team working skills. The children were divided into a group of 5 people and assigned with a IEM-WE volunteer to each group as facilitators. The team competed against each other at each checkpoint in a *treasure hunt activity*. Questions at each checkpoint made the children think aloud and encouraged them to communicate and discuss possible solutions. They were seen to be very excited and have a strong team working skill. This was also observed in other group activities that were organized in earlier programs. Winners of each category of activity levels received tokens and hampers which were prepared from the cash and in-kind contribution, collected from among IEM-WE committee members.



Figure 14.1: Setting-up of Library



Figure 14.2: Activities at the waterfall

For the following activity, the group proceeded to the waterfall, which was about 1 km away. The children showed enthusiasm to guide us to the waterfall. The atmosphere was so much welcoming, now the children took the role as hosts and hostess. They were seen to be more at ease and even took the responsibility to ensure our safety to reach the destination and back to the Kampung hall where we had gathered in the morning. However, the activity at the waterfall was cut short due to the weather. One of the primary school boys had made the initiative to usher everyone to pack up and leave the area quickly. Based on his past experience almost being swept away when it rained due to a sudden big gush of water from the upstream, he took the leadership role in ensuring safety comes first for everyone. There was a strong bond and compassion when it was observed that our young volunteers were wonderfully helpful and caringly guarding the little ones during the heavy rain walking back to the village. Almost all of us arrived at the hall soaking wet. Everyone was in high spirit nevertheless, and after changing to dry clothes the final session was the sharing session. While the children were busy sharing their hampers together interviews were done casually.

Motivation to further their studies until the university level was expressed, although the scope and field of study are still unclear to them. The experience they had during the activities in the two universities in May 2014 had given them a valuable take away. The children saw actual robots and a racing car for the first time in their lives. They had the opportunity to design and make model cars from recycle materials, and compete with one another. They also had interactions with university lecturers, and students from the universities and reputable schools, throughout the duration of our activities. Although many tokens and gifts were distributed as rewards for winning the activities, it was observed that these material gains are not their main interest in joining our activities. Their generic skills, particularly in team working, leadership, communication, were observed. There are rooms for improvement but these are generally at par with other non-Orang Asli children. Math skills were detected indirectly

in how they divide and share their hampers. Science skills were observed in the group activities organized since the first time.



Figure 14.3: At Universiti Teknologi Malaysia and Taylor's University

## 14.5 CONCLUSIONS

In conclusions, it has been identified that our series of activities had managed to influence the children in appreciating Science and Mathematics, but not sufficient enough to influence them to want a career in related fields. Their generic skills, particularly in team working, leadership, communication, are obvious. It was observed that the children were more confident during the outdoor non-academic activities.

Efforts need to be made to provide them with more exposure to career in STEM. This is not only true for the Orang Asli community but also to other community as well. In terms of teaching and learning approaches, it would be more effective if the approaches are designed to include structured non-academic activities using the environment and tools they are familiar with. Learning by doing the things they enjoy will help the children to learn multiple skills. The confidence and motivations can definitely be increased further, which may trigger self-regulated learners.

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## Sexting Phenomenon Among Teenagers: A Case Study in Pontian, Johor

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### 15.1 INTRODUCTION

The rapid development and modernization are in lines with growth of the era. The world witnessed various inventions and creations resulting from the high-tech nowadays. Such as the Internet in which has become the platform for the universal communications that its importance in daily life cannot be denied. Heider & Harp (2000) had specifies that the presence of the Internet has generate a revolution of communication that has changed the pattern of communications among individuals. The power of the Internet that channels all of the information and connect unlimited the world across the globe has changed the culture landscape and fastens the acceptance of the world society towards the value of all the mankind. The Internet that usually been related to the usage of computers only had been broaden to the usage of smartphones that also had undergone the revolution in its creation. A phone that in the beginning is an electronic media that works only for the basic

telecommunications which is to make calls and send messages, have now been upgraded its function with various of applications.

This technology development has basically facilitates in the modern life nowadays. However, if it is uncontrollable it may bring harms toward the society. According to Willard (2007), Internet and other information technology portable device has ushers dependencies of the teenagers in a lot of things including communicating with their friends, looking for new contacts, searching for information and updating blog or websites. Weber function & Dixon (2010) claims that the unlimited digital world has now become the culture of the teenagers and has change the way they socialize, interact, and their relationship with other people. It is clear that the advancement of technology and information at the fingertips has given big influences in one's life. In the other point of view, the advancement of communication technology had always been misuse by today's generations. Pornography, cyber-bully, cyber-stalking, and sexting is part of the technology misuse. This research will be focusing on to the sexting that recently had become a phenomenon among teenagers in many countries. 'Sexting' is a part of sexual communication by using CMC (Computer Mediated Communication) such as texts, pictures, video that has been sends by using the smartphones, emails or IM (Instant Message) (Lenhart, 2009). All of the applications enable everyone to receive, sending, watch, listen and talking about sex. If before this everything regarding to sex is something that should not be talk about openly, now everything is different.

Sexting is the action of sending photos, message (text) or video porn by using a smartphone. It includes sending a picture in a provocative or sexual ways in the Internet. The sexting word has been used widely starts from 2005 to explain about the activities of sending texts or images with sexual sense through the smartphone (Roberts, 2005). Muscari (2010) had tried to explain about sexting as a modern culture that brought to various implications in par with its existence and development. Sexting activities had spread among the young generations and it is not only involves teenagers of the other countries, but also in Malaysia itself where this activities had become a trend nowadays. Sexting also can be done with

various kinds of ways by using different medias. Apart from using smartphones to do this kind of activities, now sexting can also be done by using emails, applications such as WhatsApp, WeChat, Facebook, IM etc. It is easier since all the applications had already installed in the smartphone of each of the teenagers today. This research will be focusing on the sexting among teenagers with its negative implications results from this phenomenon.

## 15.2 PROBLEM STATEMENT

Sexting phenomenon can raise risks because it able to encourage and increase the pressure of wanting to have sex for both the sender and receiver. This is because sexting is usually associated with the tendency of having a sexual behavior such as masturbation, or oral sex or even having a real sex. Henderson (2011) in his research testified that individuals who was involved with sexting has a number of sex partner more than one and are tend to perform oral sex. In other research done in oversea, the report stated that 45% of the respondent has already having sex at least once after involving in sexting (MTV girl-AP, 2009). This condition if not being control will results to the widespread of people having sex without marriage among the teenagers that actually will bring a negative impacts such as the sex addiction, promiscuous sex, pregnancy without marriage, or worse abandoned baby.

From the legal point of view, sexting can be considered as a crime if the image, video or text with sexual content that has been sent is being used as blackmail, tease, hurting, or ignominious. Apart from that, sexting also will bring in negative impact to the emotion as it may cause a serious emotional stress and trauma. It can be worse as sexting also may be the cause of death. Brown, Keller & Stern (2009) explain that the action of sharing or spreading the content of sexting that has been received to the other individuals may cause emotional disturbances, shyness toward the public that may results to suicidal of the victim. This statement has been supported by Friedman (2010) who said that sexting might cause implications towards mental healthiness such as emotion, depressed, and suicide if it is spread to the one that should not be. It is clear that the advancement of technology in communication

field has been misuse by the young generations nowadays. If this is not being stopped, the negative activity will results to various adverse effects that would undermine the morality and damage the human soul.

A teenager is an asset to a country and will going to play the important role in determining the pattern of future politics, economy and social in our country. Thus, a quality teenager is very needed in order to ensure the future of the country. Based on the issues that have been brought regarding the spreads of sexting phenomenon, it is clear that this phenomenon cannot be taken lightly. The negative implications that being brought by this phenomenon will actually give a big effect toward the teenagers in Malaysia if there is no a precaution steps being taken. Negative impact will not only be impressed up the individual self, but it also will affect family, society and religion. This research is also having a purpose of exploring and understanding the sexting phenomenon in depth. Thus this research is focusing to the type of sexting that usually being done by the teenagers, the sexting behavior, the attitude of the teenagers toward sexting, and also the relationship of sexting with the teenager sexual behavior. Along with the in depth understanding of this phenomenon, it is hope that this research may give a necessary information to the parties concerned especially the future researchers, parents, school authorities, society and the other interested parties in having ways of making strategies to stops this phenomenon from continuously spread among the teenagers of this country.

### **15.3 OBJECTIVES**

The common research objective is to identify the types of sexting, the behavior of sexting, and the attitude toward sexting among the teengers. While the specific objectives of this research are to:

1. Identify the differences of the types of sexting among teenagers based on gender.
2. Identify the differences of behavior of sexting among teenagers based on gender.

3. Identify the differences your attitude toward sexting among teenagers based on gender.
4. Identify the differences of sexting and sexual behavior based on gender.
5. Identify the differences sexting type based on age level.
6. Identify the differences sexting behavior based on age level.
7. Identify the differences of attitudes toward sexting based on age level.
8. Identify the differences of sexting and sexual behavior based on age level.
9. Identify the relationship between attitudes toward sexting with the sexting behavior.
10. Identify the relationship between attitudes toward sexting with the sexual behavior.

#### **15.4 METHODOLOGY**

This research is a review that used quantitative data obtained from questionnaire that has been distributed. Stratified random sampling technique has been used to identify 375 respondents which consist of teenagers range from 13 to 17 years old. The research *instrument* being used was the adaptation from the *Sex and Tech Survery Questionnaire* by The National Campaign to Prevent Teen and Unplanned Pregnancy, Washington State, United States of America. This instrument has been modified according to the sociocultural, religion, and the requirement of this research. The trustworthiness of Cronbach's Alpha for the overall instrument being used in this research is 0.932. Data acquired has being analyzed by using Statistical Package for Social Science (SPSS) 17.0 version. A descriptive analysis has been used to analyze the frequency, percentage, mean and standard deviation. Apart from that, inference analysis also has been used in this research. The Spearman Rho correlation coefficient been used to test the research hypothesis. While *t*-test also been used to test the differences between gender and age level.

**Table 15.1: Trustworthiness of the Questionnaire**

<i>Items</i>	<i>N of Items</i>	<i>Cronbach's Alpha</i>
Type of Sexting	6	0.859
Sexting behavior	16	0.929
Sexting attitude	16	0.843
Sexting and sexual behavior	5	0.878
Total item	43	0.932

## 15.5 FINDINGS

### Analysis of the Differences of Sexting Types Based on Gender

This part will discuss the results of data analysis in order to test the hypothesis and answer research questions related to differences of type of sexting among the teenage men and teenage women. Type of sexting in this research is divided into two, which is text sexting and image sexting. Text sexting refers to messages that contain elements of porn that being send or receive through smartphone or emails, while image sexting refers to images, picture or videos that also containing the elements of porn that being send or received through smartphone or emails. Table 15.2 shows that the finding that already been analyze by using *t-test*. The *t* value for the comparison of sexting type among teenage men and teenage women are  $t = 6.671$  with the significant value  $p = .000$ . The significant value obtained is smaller from 0.05 ( $p < 0.05$ ). Thus, the result is that the null hypothesis is successfully rejected. There are significant differences of sexting type between teenage men and teenage women. As for the research sample ( $n = 375$ ), the mean score value for sexting type of teenage men is bigger  $M = 2.6071$ ,  $SV = 1.01245$  compared to mean score value of sexting type of teenage women ( $M = 1.9833$ ,  $SV = .72903$ ).

**Table 15.2: Analysis of Differences of Sexting Types Based on Gender**

<i>Rate</i>	<i>N</i>	<i>Min</i>	<i>Standard deviation</i>	<i>The value-t</i>	<i>Phase Significant</i>
The Man	165	2.6071	1.01245	6.671	.000
Women	210	1.9833	.72903		

**Analysis of the Differences of Sexting Behavior Based on Gender**

This part will discuss the results of data analysis in order to test the hypothesis and answer research questions. Table 15.1 shows the differences of sexting behavior based on gender that has been analyze by using *t-test*. Based on Table 15.3, the value of *t* of every sexting behavior comparison between teenage men and teenage women are  $t = 8.808$  with the significant value  $p = .000$ . The significant value obtained is smaller than 0.05 ( $p < 0.05$ ). Thus, the results is that null hypothesis is successfully rejected. There are significant differences of sexting behavior between teenage men and teenage women. For the sample ( $n = 375$ ), the mean score value of teenage men' sexting behavior is bigger  $M = 2.0140$ ,  $SV = .78723$  compared to teenage women' sexting behavior mean score value ( $M = 1.38960$ ,  $SV = .51650$ ).

**Table 15.3: Analysis of Sexting Behavior Based on Gender**

Rate	N	Min	Standard deviation	The value-t	Phase Significant
The Man	165	2.0140	.78723	8.808	.000
Women	210	1.3896	.51650		

**Analysis of Differences of Attitude Toward Sexting Based on Gender**

Table 15.4 shows the research finding on differences of attitude toward sexting based on gender that already been analyze inferentially by using *t-test*. Based on Table 15.2, it could be seen that the *t* value for the comparison of attitude towards sexting teenage men and teenage women are  $t = .531$  with the significant value  $p = .596$ . Significant value obtained is bigger than 0.05 ( $p > 0.05$ ). Thus the result is not significant and the null hypothesis is accepted. There are no significant differences of the attitudes towards sexting between teenage men and teenage women. For research sample ( $n = 375$ ) the mean score value for the attitude towards sexting of teenage men do not shows any much differences with the mean score value of teenage women where the mean score value obtained is  $M = 3.1511$ ,  $SV = .76820$  while mean score value toward texting



of the teenage girls is  $M = 3.1125$ ,  $SV = .60156$ . This indicates that the attitude towards sexting of teenage men and teenage women are the same.

**Table 15.4: Analysis of Attitude Toward Sexting Based on Gender**

Rate	N	Min	Standard deviation	The value-t	Phase Significant
The Man	165	3.1511	.76820	.531	.596
Women	210	3.1125	.60156		

### Analysis of the Differences in Sexual Behavior Based on Gender

Table 15.5 shows that the analysis differential of sexual behavior based on gender has been analyze by using *t-test*. Based on Table 15.5 the *t*-value for the comparison of sexual attitude between teenage men and women is  $t = 6.671$  with the significant  $p - .000$ . The significant value obtained is smaller than 0.05 ( $p < 0.05$ ). This shows that the results are significant and null hypothesis is rejected. Thus, there are significant differences of sexual behavior between teenage men and teenage women. For the research sample ( $n = 375$ ), the mean score value for the sexual behavior of teenage men is bigger than mean score value of teenage women. The mean score value obtained is  $M = 2.6071$ ,  $SV = 1.01245$  while mean score value of sexual behavior of teenage women is  $M = 1.9833$ ,  $SV = .72903$ .

**Table 15.5: Analysis of Attitude toward Sexting Based on Gender**

Rate	N	Min	Standard deviation	The value-t	Phase Significant
The Man	165	2.6071	1.01245	6.671	.000
Women	210	1.9833	.72903		

### Analysis of the Differences of Sexting type Based on Age Level

Based on Table 15.6, it indicates that there are significant differences of mean score values of sexting type based on age level  $F(df = 4, 370) = 18.853$ ,  $p < 0.05$ ). This results shows that there are significant differences of sexting type based on age level of the teenagers. With this, the null hypothesis is rejected. Mean score value of sexting type for teenagers at the age of 13 years old are smaller that the other age level ( $M = 1.5907$ ,  $SV = .78890$ ). However, even though the

results of ANOVA test is statistically significant, the real differences of mean score value is small.

**Table 15.6: ANOVA Test of Sexting Type Based on Age Level**

<i>Sexting Type</i>	<i>The number of the squares of these</i>	<i>Degrees of freedom</i>	<i>Min of the squares of these</i>	<i>F-Value</i>	<i>Significant</i>
Between Groups	53.356	4	13.339	18.853	.000
In Group	261.781	370	.708		
The amount of	315.137	374			

**Analysis of the Difference in Sexting Behavior Based on Age Level**

Based on the Table 15.7, there are significant differences in mean score value of sexting behavior based on age level  $F (df = 4,370) = 10.078, p < 0.05$ . Based on the significant ( $p < 0.05$ ) it shows that there are significant differences in sexting behavior based on age level. Thus null hypothesis is rejected. However, mean score values of sexting behavior for every age level are not much different. Thus even though the result of ANOVA test are statistically significant, the real differences of its mean score value is smaller.

**Table 15.7: ANOVA Test of Sexting Behavior Based on Age Level**

<i>All swagger Sexting</i>	<i>The number of the squares of these</i>	<i>Degrees of freedom</i>	<i>Min of the squares of these</i>	<i>F-Value</i>	<i>Significant</i>
Between Groups	19.004	4	4.751	10.078	.000
In Group	174.416	370	.471		
The amount of	193.420	374			

**Analysis of the Differences Attitude Toward Sexting Based on Age Level**

Based on the Table 15.8, it shows that there are significant differences of mean score value of attitude toward sexting based on age level  $F (df = 4,370) = 8.352, p < 0.05$ . Based on the significant value ( $p = < 0.05$ ) shows that there are significant differences of sexting behavior based on age level of the teenagers. Thus null hypothesis is rejected. However, mean score value of attitude towards sexting for 13 years old teenager ( $M = 2.8331, SV = .72354$ ) and 14 years

old ( $M = 2.9945$ ,  $SV = .68631$ ) does not show so much difference between both of the age level. The same goes to mean score value at the age of 15, 16, and 17 years old that does not show so much differences between that three age level. Thus, even though the results of ANOVA test are statistically significant, but the real differences of mean score value among the group is small.

**Table 15.8: ANOVA Test of Attitude Toward Sexting Based on Age Level**

<i>Your attitude toward Sexting</i>	<i>The number of the squares of these</i>	<i>Degrees of freedom</i>	<i>Min of the squares of these</i>	<i>F-Value</i>	<i>Sig.</i>
Between Groups	14.290	4	3.573	8.352	.000
Within Groups	158.261	370	.428		
Spam/Ham	172.551	374			

### **Analysis of Differences of Sexting and Sexual Behavior Based on Age Level**

Based on the Table 15.9, it shows that there are significant differences of mean score value of sexting and sexual behavior based on the age level  $F(df = 4, 370) = 3.960$ ,  $p < 0.05$ ). Based on the significant value ( $p = < 0.05$ ) shows that there are significant difference of sexting and sexual behavior based on age level of the teenagers that bring the meaning that the null hypothesis is rejected. Mean score value of sexting and sexual behavior for 13 years old teenagers are the lowest among the other five groups ( $M = 1.3114$ ,  $SV = .55815$ ) while the mean score value for 17 years old teenager was the higher ( $M = 1.8234$ ,  $SV = .92451$ ). Even though the results of ANOVA test is statistically significant, but the real differences of the mean score value among the groups are small.

**Table 15.9: ANOVA Test of Sexting and Sexual Behavior Based on Age Level**

<i>Sexting and Those types stunt sexually frustrated</i>	<i>The number of the squares of these</i>	<i>Degrees of freedom</i>	<i>Min of the squares of these</i>	<i>F-Value</i>	<i>Sig.</i>
Between Groups	11.722	4	2.930	3.960	.004
In Group	273.795	370	.740		
Spam/Ham	285.516	374			

**Analysis of the Relationship Between Attitudes Toward Sexting with the Sexting Behavior**

Table 15.10 shows that the result of the analysis obtained and the discussion about it. Finding shows that the relationship strength of the attitude toward sexting with the sexting behavior is  $r = .370$  which mean that the correlation relationship is weak. However, the significant value obtained is  $p = .000$ . Thus the null hypothesis is rejected. This is because the correlation is believed to exist even though it is weak. It can be concluded that there are significant relationship between the attitudes towards sexting with sexting behavior among teenagers.

**Table 15.10: Analysis of the Relationship between Attitude Toward Sexting and Sexting Behavior**

			<i>All swagger Sexting</i>	<i>Your attitude toward Sexting</i>
Spearman's rho	All swagger Sexting	Correlation Coefficient	1,000	370 amazing**
		Sig. (2-tailed)	.	.000
		N	375	375
	Your attitude toward Sexting	Correlation Coefficient	370 amazing**	1,000
		Sig. (2-tailed)	.000	.
		N	375	375

\*\*Correlation is significant at the 0.01 stage (2-tailed)

**Analysis of the Relationship Between Attitudes Toward Sexting with Sexual Behavior**

Table 15.11 shows the result of the analysis about the relationship between the attitude toward sexting with sexual behavior among teenagers. Finding shows that the relationship strength between the attitude towards sexting with the sexual behavior are  $r = .176$  that also bring a meaning that the correlation relationship is weak. The significant value obtained is  $p = .001$ . Thus the research finding shows that the null hypothesis successfully rejected. This is because the correlation could be trusted even though it is weak. Thus it could be concluded that there are still relationships that are

significant between attitudes towards sexting with sexual behavior among teenagers.

**Table 15.11: Further Analysis of the Relationship between Your Attitude toward Sexting All Swagger Sexually Frustrated**

			<i>Your attitude toward Sexting</i>	<i>Sexting and Those types stunt sexually frustrated</i>
Spearman's rho	Your attitude toward Sexting	Correlation Coefficient	1,000	176 amazing**
		Sig. (2-tailed)	.	.001
		N	375	375
	Sexting and Those types stunt sexually frustrated	Correlation Coefficient	176 amazing**	1,000
		Sig. (2-tailed)	.001	.
		N	375	375

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

## 15.6 DISCUSSION

### Sexting Type

Based on research been done, it was discovered that sexting phenomenon was actually happening towards the teenagers in Pontian. The findings had shown that the total respondent who had involved in the text sexting type been discovered to be higher compared to image sexting type. It can be seen through the comparison of mean score value of  $M = 2.35$  for text sexting type, and  $M = 2.16$  for image sexting type. This result is parallel or the same with the findings of the research from The National Campaign (2008) and also research done by Christopher D. Houck (2013), that also having the same results that text sexting type is actually being done more than the image sexting type (images or videos). However, the results of data analysis found that respondent gets involved more with receiving image sexting type (50.5%) compared to text sexting type (50.2%). In the meantime, the results also shows that there are more respondents who are involving with sending text sexting type (22.4%) compared to image sexting type (8.8%).

As for the sharing sexting, research had found that there are more respondents who shares text sexting type (12.2%) compared to 10.1% image sexting type (images or videos). The findings obtained shows that the involvement of the teenagers in this matter is worth to be worried off. This is because they are not only involves in receiving and sending only, but they also actually share the text or image sexting with others.

### **The Differences of Sexting Based on Gender**

The result gain in this research testified that there's a significant differences in *sexting type* between a teenage men and a teenage women. Null hypothesis also managed to be denied. For sample and this research ( $n = 375$ ), the mean score for *sexting type* a teenage men are greater namely  $M = 2.6071$ ,  $SV = 1.01245$  compared to the mean scores in *sexting type* of a teenage women ( $M = 1.9833$ ,  $SV = .72903$ ). This indicated that teenage men are more prone to do *sexting* compared to teenage women. This findings is parallel with the research done by The National Campaign (2008), and Kim Cheryl Schloms-Madlener (2013), that also testified that teenage men involves more with sexting that the teenage women.

### **The Differences of Sexting Type Based on Age Level**

The result of this research indicates that there are significant differences in type of sexting based on the age levels. The mean score for sexting type for those who aged 13 years old shows that it is smaller than the other age levels ( $M = 1.5907$ ,  $SP = .78890$ ). The findings shows that teenagers at the age of 13 years old are likely to get involve with sexting is lesser that those at the other age level. On the other hand, teenagers at the age of 16 years old seem to be having the highest involvement in sexting. This shows that it is parallel with the findings of Hinduja & Patchin (2010), which testified that sexting tendency will increase as the teenagers getting older, where the results of the research shows that only 2% of teenagers at the age of 11 years old getting involved in sexting while the higher percentage is dominated by teenagers at the age of 18 years old.

## **Sexting Behavior**

The result of this research about the sexting behavior was testified that the highest frequency of teenagers' sexting is twice a week. Apart from that, the findings also show that teenagers in Pontian prefer to sexting with their friends. This result also explained that these teenagers usually make their friends as their main target for sexting. This is proven with the higher mean score value ( $M = 2.02$ ) compared to the other target. This finding is not parallel with other findings of research done by Kim Cheryl Schloms-Madlener (2013). His finding shows that teenagers prefer to sexting with those they admire including their boyfriend or girlfriend. The finding also shows that mostly teenagers state their reasons to sexting is to joke around and having fun, as its mean score value of  $M = 2.10$  is higher than any other reasons. In addition, the finding also shows that teenagers sexting with their own volition without any forces or pressures from others. This statement is proven by a lower mean score value at the items of being forced, and threaten with only  $M = 1.46$ , while  $M = 1.61$  for statement regarding being pressured.

## **The Differences of Sexting Behavior Based on Gender**

As for hypothesis testing, research finding had rejected the null hypothesis. The finding has testified that there are significant differences of sexting behavior between teenage men and teenage women. As for this research sample ( $n = 375$ ), the mean score for teenage men sexting behavior is higher which is  $M = 2.0140$ ,  $SV = 1.01245$  compared to mean score value of sexting for teenage women ( $M = 1.9833$ ,  $SV = .72903$ ). This shows that teenage men are more prompt to do sexting compared to teenage women. This finding is parallel with research done by The National Campaign (2008) and Kim Cheryl Schloms-Madlener (2013) that also find that more teenage men are involving in sexting than teenage women.

## **The Differences of Sexting Behavior Based on Age Level**

In the aspect of age, the finding testified that there are significant differences on the sexting behavior based on the age level. Thus this finding successfully rejected the null hypothesis. However, the mean score value for sexting behavior for every age level are not

much different with one another, because even though the results for Anova test are statistically significant, but the real differences in mean score value between group is small. In other words, there are not much differences of sexting behavior in the aspect of frequencies, target, and the reason of sexting for every age level (13 to 17 years old).

### **Attitudes Toward Sexting**

The finding of the research about the attitude toward texting shows that mostly respondent agreed that sexting may cause negative effects and humiliate someone. Overall, the finding of this part shows that mostly respondent have a negative attitude towards sexting. This clearly indicate through the comparison of mean score value obtained from every negative items that have a higher mean score value compared to positive items (positive attitude:  $M = 2.19$ , negative attitude:  $M = 4.06$ ). However, the respondent shows a positive view related to the statement of 'sexting is something that is normally done among teenagers nowadays'. This has been proven by the mean score value received which is higher (49.1%) for the agreed answer compared to mean score value for disagree. This finding shows that teenagers act openly regarding this matter. This openness needs to be given more attention because it may results to undesirable implications.

### **The Difference Your Attitude Toward Sexting Based on Gender**

In terms of the comparison of attitude toward sexting based on gender, the finding shows that there are no significant differences towards sexting between teenage men and teenage women. This indicates that the finding failed to reject the null hypothesis. Research sample ( $n = 375$ ) mean score value of attitudes toward sexting, teenage men does not shows any much differences with teenage women. Mean score value obtained shows that the value of  $M = 3.1511$ ,  $SV = .76820$  while mean score value of attitudes toward sexting for teenage women shows that the value of  $M = 3.1125$ ,  $SV = .60156$ . This indicates that both teenage men and women have same attitudes towards sexting (negative attitude).



## **The Differences of Attitudes Toward Sexting Based on Age Level**

The comparison of attitude towards sexting based on the age level shows that there are significant differences in the results and it successfully rejected the null hypothesis. However, the mean score value of the attitudes toward sexting for 13 years old teenagers ( $M = 2.8331$ ,  $SV = .72354$ ) and those at the age of 14 years old ( $M = 2.9945$ ,  $SV = .68631$ ) does not show so much differences between both of age level. The same goes to mean score value of teenagers at the age of 15, 16, and 17 years old that does not show any much differences among those three age level. Thus, even though the results of ANOVA test are statistically significant, the real differences in mean score values among the group are small. This finding shows that the teenagers in every age level have a same attitudes toward sexting (mostly are negative attitude) because of the differences are small.

## **Sexting and Sexual Behavior**

The result of this analysis shows that the respondents who have done sexting also involves in sexual behavior such as dating, skin-touch that involves touching, which is holding hands till the point of hugging, kissing, and petting. This finding shows that mostly respondents involves with sexual behaviors of touching type (holding hands to hugging). This proves with the high mean score value  $M = 1.83$ ,  $SV = 1.197$  compared to the other sexual behaviors. However, the differences in mean score value between sexual behaviors does not show an obvious difference between each other. Apart from that, the results also indicate that there are several respondents who involves in sexual intercourse. However, the percentage of the respondent whom involves with it is very low. The finding is parallel with the finding of research done by Christopher D. Houck (2013) and Rice et. al., (2012). The finding also shows that teenagers whom involves in sexting are more prompt to involve with sexual behavior. Their finding also indicates that teenagers involves more in image sexting (pictures or videos) and prompt to involves with sexual behavior compared to teenagers who involving in text sexting.

### **The Differences Between *Sexting* and Sexual Behavior Based on Gender**

The result of this research shows that sexting and sexual behavior among the teenagers based on gender is significantly different. This finding explains that the result of the test is significant and null hypothesis is rejected. The result of the analysis shows that the mean score value of teenage girls is small ( $M = 1.9833$ ,  $SV = .72903$ ) and this means that teenage men involves more in sexual behavior compared to teenage women. However, the mean difference obtained does not show big differences.

### **The Differences Between *Sexting* and Sexual Behavior Based on Age Level**

The result shows that the comparison of sexting and sexual behavior based on age level also shows that there are significant differences in mean score value of sexting and sexual behavior based on age level  $F (df = 4, 370) = 3.960, p < 0.05$ . Mean score value of sexting and sexual behavior for teenagers at the age of 13 years old seems to be the lowest apart of the other five groups ( $M = 1.3114$ ,  $SV = .55815$ ) while the mean score value of those at the age of 17 years old shows the highest ( $M = 1.8234$ ,  $SV = .92451$ ). However, the real differences in mean score value among groups is small even though the Anova test shows that the relationship is statistically significant.

### **The Relationship Between Attitudes Toward Sexting with Sexting Behavior**

Correlation testing shows that the strength of the relationship between the attitude toward sexting and the sexting behavior is  $r = .370$  that brought the meaning that the correlation relationship is weak. However, the significant value obtained is  $p = .000$ . Due to a higher significant value obtained, thus the result of this research successfully rejecting the null hypothesis. This is because the correlation is believed to exist even though it is weak. Thus it can be concluded that there are significant relationship between the attitude toward sexting and the sexting behavior among the teenagers.

## **The Relationship Between Attitudes Toward Sexting with Sexual Behavior**

The result of this research shows that there are significant relationships between attitudes toward sexting with the sexual behavior but the correlation coefficient obtained is weak. Therefore, null hypothesis is rejected. The finding obtained is parallel with the research done by Kim Cheryl Schloms-Madlener (2013), which indicate that sexting positively have a significant relationship with sexual behavior, where the teenagers that involve with sexting will directly involve with sexual intercourse with their partner. The results also in parallel with research done by O'Sullivan and Gibbings (2012), and research by Christopher D. Houck et. al., (2013). The research report indicates that online sex activities such as sexting are actually a main predictor of the involvement of teenage women in sexual intercourse. The findings also support findings by Dake et. al., (2012) who made a research on the correlation of sexting behavior among teenagers. The results have found a finding that is statistically relate to the significant relationship among teenagers whom involves with sexting with the sexual behavior as well as other problematic behavior such as random sex relationship and misuse of forbidden things (drugs, alcohol etc). As additional, this finding also is parallel with research done by Rice et. al., (2012) that reported that teenagers who involves with sexting is prompt to be more active in their sexual behavior including sexual intercourse.

### **15.7 CONCLUSION**

It can be concluded that this research is done to find the answer and explain several questions regarding the sexting phenomenon that already been a global issue since it started to engulf the teenagers around the world including our country. A total of 375 school teenagers has involved in this research in order to identify the type of sexting, the sexting behavior, attitude toward sexting also other things that relate between sexting and the sexual behavior among the teenagers. Findings also have been discussed by taking into account the other researches that has been done before. There are

some of the result that is parallel with the past researches and also the other way around. Through my research it can be concluded that part of the teenagers that has been the respondents are involved in the sexting phenomenon.

This research shows that the modernization of communication technology and media has affected the growth and development of sexual behavior among the teenagers even though in the very minimal percentage of involvement. This thing cannot be seen lightly because it may sparks a worst situation in the future if it is not being stop or if there are no precaution steps taken by parties concerned. The findings also should be used as a guide and warning to the certain parties especially parents, school authorities in making sure that all the controls and attention been given more towards the teenagers nowadays. The findings also had a clear implication towards parents as to make sure that they always watch and control the usage of media in their children's everyday life. Teenagers nowadays are more open-minded toward issues that involving social and sexual. The negligence of the parents in giving their attention towards the activities of their children involving the usage of smartphone will give an unforeseen negative impact. If we refer to the increase of the serious juvenile crime and moral decay among teenagers nowadays, there are a lot of alternatives need to be think about and applied in order to solve the social problem that has been going so critical and alarming.

By using this research, school authorities and teachers are able to understand factors that had caused the teenagers influenced by the immoral activities and trying to make programs that complement with the avoiding and recovery steps. The school authorities could give the exposure to the students and suppressed that the usage of media and modern technology is very important for the purpose of teaching and learning also not to be misused by other negative impact and not worth it. Social media such as the application of *WeChat*, *WhatsApp* and *Telegram* also anything related to it is very useful in making the discussion of the school's homework, exercises, sharing ideas and such, but not to share things that should not be. Awareness campaigns also could be implemented with the collaboration with media parties. It's meant to broaden the publicity

so that the awareness campaign could attract a lot of attention especially the targeted, which is the teenagers and parents. School counselors also could help and give guidance and counseling to those students that problematic and involving with this phenomenon.

Various parties collaboration is very important in educating the mindset of the teenagers to a positive ways so that they would not spend their teenage time carelessly with things that should not been done. In this matter, school authorities could try to create collaboration with certain parties such as government parties and NGO such as LPPKN, PDRM, Ministry of Health, Department of Society and Welfare, *Raudhatul Sakinah* guiding centre and others. Apart from that, parents also need to involves in the programs such as parents motivational program and such, purposing to injected consciousness of those things that are related to responsibility and attention to children. In addition, the school authorities also need to work together with the community so it could make it easier for monitoring and transmitting important information related to the teenagers' activities outside of school.

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## **Impact of Parent-Child Communication on Aggressive Behavior Among Nigerian Adolescents**

*Mohammed Tajudeen Yusuf and Aqeel Khan*

### **16.1 INTRODUCTION**

Globally, it is matter of great concern that high rate of violence and aggression being expressed. Moreover it is disturbing a large percentage of the perpetrators and victims are adolescents and young adults who are expected to the driving force of nation building. The Centre for Disease Control and Prevention rated homicide as the second leading source of young people's death; most of which are caused by conflict with peers. An average of 13 youth fall victims of homicide daily and a higher number were victims of non-fatal violence (Patton et. al., 2014). An estimated 1.6 million people are reported to have died of violence in the year 2000, and many more victims of non-fatal violence of which interpersonal violence is the biggest contributor (Harris, Oakley & Picchionni, 2003). Hamma & Ronen-shenhav (2013) describe adolescent aggression as a social problem that has risen sharply in recent years and therefore requires to be studied extensively.

The World Health Organization define violence as “the intentional use of physical force or power, threatened or actual, against a group or community, that either results in or has a high likelihood of resulting in injury, death, psychological harm, mal-development and deprivation. School violence entails all characteristic of violent behavior except the players are kids and adolescents (Estevez, Jimenez & Musitu, 2008). School violence is not a new phenomenon and it affects both students and teachers. School violence is a universal phenomenon which it pervades all society, whether developing or developed, rural or urban (Quarles, 1993; Midlarsky & Klain, 2005).

School violence entails a wide range of activities which include; bullying, assault, suicide, homicide; non-fatal victimization and fight accounts for the highest complain by students (Barbanel, 2005). Students who perceive threat from any form of aggression, may become so distracted from their studies and concentrate more on how to cope with the perceived threats rather than concentrate on studies (Irozuru & Ukpong Eno, 2015).

There are reported cases of attacks with guns and other weapons on peers, teachers and school administrators. Schools are no longer considered safe place for parents and teachers may worry about their children and their own safety. The school as a context in which children’s minds are nurtured should be safe. Aluede (2011) observe school violence as an issue in Nigeria became more prominent in the last few years, but despite the increasing rate of violence in schools, the society still expects the school to be as safe as it was in the past.

Aggression can be classified into Physical aggression - hitting, biting, kicking, clubbing, stabbing and shooting etc. Verbal aggression - yelling, screaming, swearing, name calling, bitching, whispering, spreading vicious rumours, mockery, sarcasm and Relational aggression - hurting another person’s reputation or friendships, gossiping, exclusion etc. (Berkowitz, 1994; Bjorkqvist, 1994; Bjorkqvist, Lagerspetz & Kaukianen 1992).

Some of the negative consequences of physical aggression summarised by Nwafor, Onyeizugbo & Anazonwu (2015) from various studies include mental health problems, low academic performance, social problem and difficulty concentrating on school

work, absenteeism, dropping out from school, low self-esteem, internalizing and externalizing problems. Similarly, relational aggression can cause , anxiety, depression and low self-esteem, poor academic performance absenteeism etc.

The Nigerian society has experienced an increase in the scope and sophistication of adolescent aggressive behaviour with the use of firearms and other dangerous weapons escalating at a high rate (Arijesuyo & Olusanya, 2011). There is most embarrassing problem facing by tertiary institutions in Nigeria today is the aggressiveness. There is hardly any academic session without reported cases of cultism in many of these institutions (Ajayi, Ekundayo & Osalusi, 2010).

The findings from a study of undergraduate students conducted by Abasiubong, Abiola, and Udofia (2011) indicated that 32.8% of the students sampled for the study reported that they were involved in aggressive behaviour. It is also reported that about 5,000 students and lecturers have died on campus as at 2003 as a result of activities of gangs operating in Nigerian educational institutions (Okwu, 2006). Aggressive behaviour is not limited to the tertiary institutions but has permeated all the levels of education (Ajayi, Ekundayo & Osalusi, 2010) as evident in a study which reveal an average of 20.8% of the secondary school adolescents in the study were involved in aggressive acts (Onukwufor 2013)

Aggressive students in Nigerian secondary schools have hindered the smooth running of the schools by disrupting classes, as they direct their aggression against school property and classmates, as well as against teachers and peers (Ojedokun, Ogungbamila, Kehinde, 2013). There is the need to step up efforts aimed at overcoming aggressive behaviour in our schools. It is against this background that Nwafor, Onyeizugbo & Anazonwu (2015) call for urgent research to broaden the understanding of the possible factors that may be implicated in aggressive behaviors so as to overcome the problem.

According to Okon Momoh, Imhonde, Idiakheua (2011) research findings have shown that a child's emotional relationship with the parent found to be the strongest single predictor of children's aggressiveness. The emotional climate of the family is determined to a large extent by what happens in the family, especially how

members feel about one another and the way they communicate such feelings affect the emotional climate of the home. The quality of parent-child communication could play a vital role in the lives of their children. Effective communication helps strengthen parent-child relationship and increases mutual understanding (Greg Duran, 2010).

Ojedokun, Ogungbamila & Kehinde (2013) findings suggest that students who perceived their parents as caring reported fewer tendencies to perpetrate aggressive behaviours. The higher the quality of the parent-child relationship, the lower the likelihood of the child engaging in aggressive behaviour. Therefore, improving the quality of the relationship between parent and child can lead to positive effect not only on the child and the family, but also on the society as a whole (O'Connor & Scott, 2007).

### **Parent-child Communication Outcome**

The major task of parenting is the socialization and control of the children so that they function well as well-adjusted members of the society. The manner of communication between parents and their adolescent children will do a large extent effect on the behavior of the children. Effective communication also serve the function of nurturing and control within the family (Le Poire, 2005). It is of great importance for parents to communicate openly and effectively with their children since it benefits not the adolescent alone but the family as a whole by improving the relationship between parents and their children (Zolten & Long, 2006). Parents who are weak in communication with their children create a negative environment that brings out undesirable traits in the children (Prasithipad, 2008). Effective communication between parents and children is important in developing not only their personality characteristic but also their beliefs and behaviors (Huang, 2010).

Adolescents in families with high level of parent-child communication are less likely to engage in any form of problem behavior. This is due to the feeling they have that their parents care about their lives, problems and their future (Davalos et. al, 2005). However, those from families with low level of communication may develop the feeling that their parents only care about them when they are in trouble and this may serve as an incentive for them to

continue to be troublesome so as to attract their parents' attention and interest the authors observe. Good family communication also creates a positive parent child relationship which reduces the possibility of the adolescent engaging in aggressive behavior (Orpinas & Horne, 2006).

Effective parent-child communication enables parents to provide feedback to their children on the types of behaviors that are appropriate and those behaviors that are inappropriate; and where the parents fail to provide this feedback as a result of poor communication within the family, adolescents are forced to rely on peer opinions about their behaviours and this may encourage negative behavior (Davalos et. al, 2005). Parents need to express love to their adolescents and engage them in discussion about their values and model those values consistently. The quality of relationship between parents and their children directly impact adolescents' life satisfactions which in turn influence adolescent behaviors.

A number of studies have been carried out in the field of family communication to explain the effect of parent-child communication (Davidson & Cardemil, 2009; Hartos & Power, 2000; Rueter & Koener, 2008). Findings from these studies supported the relationship between parent child communication and adolescent behavior. In a study of parent-child communication and parental involvement in Latino adolescents by Davison & Cardemil (2009) found significant relationship between parent-child communication and adolescent externalizing behavior. Better parent-child communication was associated with improved adolescent functioning. Low level of externalizing behavior was reported by children with better communication with their parents. Likewise, the parents of these children also reported low level of externalizing behavior in their children. Similar to this is the finding of Hartos & Power (2000) where both mothers and adolescents report that lower quality of mother-adolescent communication is related to adolescent display of aggressive behavior.

Scholars in the field of family communication have observed the trend of communication in the family and family communication pattern explain the manner of communication in the family. The two fundamental pattern of communication by Chaffee & McLeod

(1972) are socio/conformity orientation and conversation/concept orientation. Conformity orientation creates a climate that stresses homogeneity of attitudes, values and beliefs, while conversation orientation creates a climate of free interaction about array of topics by family members (Fitzpatrick, 2004). Conformity orientation expresses the power of the parent to ensure control, agreement and appearance of harmony in the family thereby encouraging children to avoid controversy and repress anger; conversation families openly express their thoughts and ideas not minding whether or not they disagree with any other member of the family (Barbato, Graham & Perse, 2009). Considering its emphasis on harmony, conflict avoidance and interdependence of family members in its interaction, children from conformity orientation home have demonstrated low interaction in their communication at home and outside the home. But families high on concept orientation highly appreciate exchange of ideas, and the parents view frequent communication with their children as the major means of educating and socializing them hence, members communicate freely; sharing their individual activities, thoughts and feelings with one another, leading to a high demonstration of interaction at home, school and elsewhere.

Working with a sample of 384 adoptive adolescents and 208 non adoptive adolescent, Rueter & Koener (2008) studied the effect of family communication pattern on adopted adolescent adjustment. The result shows that adolescents in concept orientation families, irrespective of whether they are adoptive or nonadoptive were at lower risk for adjustment problem. However, adoptive adolescents in the conformity orientation families were at significantly greater risk for adjustment problem as opposed to the nonadoptive adolescents in the same family type. This finding also reflect the effect of good family communication in fostering adolescent adjustment. Adolescents who are well adjusted are very unlikely to engage in problem behaviors.

In a study by Offordile (2012) which sought to find the influence of parent-child communication on self-esteem and academic achievements among adolescents in Nigeria, it was established that parent-child communication has influence on adolescents' self-esteem and academic achievements. It also revealed that conformity (socio) parent-child communication pattern is dominant among the

families studied. Similarly, Anda, Adamu & Ike (2014) reported that majority of parents do not spend quality time with their children. Based on the findings of this study, it was recommended that parents should spend quality time with their children in discussion and teaching, which will help in building intimacy in parent-child relationship.

Ritchie (1991) reported that children learn by imitating and generalizing parental behaviors and conformity orientation, in which child might reasonably conclude that coercion is an acceptable and effective way of dealing with the frustration of having others disagree with his own views therefore exhibit aggression. While concept orientation child conclude that differences are better handled by conversation, tact and supportive communication. Therefore, improving parent-child relations through effective communications between parents and their offspring is an important intervention that can lead to lower level of aggression in our schools.

## 16.2 CONCLUSION

It can be concluded that the best form of communication between parent and their adolescent children is the concept orientation. It is therefore very important to find out parents communicate timing with their children as this may be one of the root causes of the spate of aggressive behavior being witnessed among our youth in recent time. School counselors need to take up the task of helping parents. It is not only enough for them to have the understanding but for them to adopt this as means of interaction in the family.

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## **Characters of Mentors that Can Inspire and Generate School Students' Interest Towards Stem**

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### **17.1 INTRODUCTION**

Science, Technology, Engineering and Mathematics (STEM) education has become an important topic for researchers because of its vital role in the country's economic growth and nation building. STEM education involves making students better problem solvers, innovators, inventors, self-reliant, logical thinkers, and technologically literate (Morrison, 2006). However, international indicators such as TIMMS and PISA have shown that Malaysian students did not perform well in mathematics and science. In addition, according to Ministry of Education (2013) there was a decrease in graduation rates in STEM fields. Those who were trained for STEM-related careers were not sufficient to meet the country's needs (Ministry of Science Technology and Innovation (MOSTI), 2012). A national study, S&T Human Capital: A Strategic Planning Towards 2020 (Ministry of Science Technology and Innovation (MOSTI), 2012) confirms that Malaysia needs at least

1.0 million S&T human capital by 2020 based on a 6% annual economic growth and the emergence of EPPs (Entry Point Projects) under the NKEAs as well as the emergence of new technology-driven sectors. 50% of this number are high skilled workers, however, would only comprise 3% (500, 000) of our expected total workforce of 15 million in 2020. All these data shows that more efforts need to be done to prepare more students to enter STEM fields.

According to the National STEM Movement (2016), STEM is referred to disciplines of knowledge consisting of Science (physics, chemistry and biology) and mathematics with the integration of various technologies and engineering. STEM incorporates all the technologies that engage science and mathematics. According to Sahin (2013), by carrying out various activities such as science fairs, after school activities, engaging students with STEM related clubs can develop positive attitudes towards STEM fields. "Young Innovate" program is an innovation competition among secondary school students (Dream Cather, 2016). The product invented must solve real problems faced by the community. The themes of the product such as agriculture & marine, automotive, manufacturing, and tourism. This competition started in 2013 and has attracted participation from many schools and universities in Malaysia. Different from any other innovation competition, Young Innovate is a mentoring program whereby the mentors were selected from undergraduate students and while secondary school students became mentees. Each mentor was assigned to guide the teams from one school. 16 students from one secondary schools were selected and each team comprises of 4 person. UTM joined this mentoring programme since 2016. The objectives of this program were to inspire passion in STEM and it is hoped the program is able to boost student's interest in STEM fields and cultivate STEM literacy.

John (2013) reported one study led by researcher Sharon Straus at St. Michael's Hospital, in Toronto the *Academic Medicine* found that good mentors were honest, trustworthy, and active listeners (Bethany, 2014). Mentorship program

helps expand students' ideas about possible careers in STEM fields. Guidance from the right person can trigger a passion for STEM. As previous studies highlighted the benefits of mentorship program, this study is proposed to identify which characteristics of mentors inspired passion and generate interest on STEM.

## 17.2 LITERATURE REVIEW

Despite substantial investment in science, technology, engineering and mathematics (STEM) education, there has been a decrease on students' interest in STEM (Ministry of Education, 2013). Table 17.1 shows the enrolment of students in science and non-science streams which clearly demonstrates that the ratio is decreasing over the years.

**Table 17.1: Science to non-science students ratio**

	<i>Science</i>	:	<i>Non-science</i>	
<i>Target</i>	60	:	40	
1986	31	:	69	
1993	20	:	80	
2001	29	:	71	Enrolment
2004	36	:	64	
2011	44	:	56	
2014	47	:	53	

If the enrolment of students in science stream at upper secondary level continues to decline, then the Malaysian aspiration to become a developed country in 2020 will also fade. Consequently, developed countries require a lot of expertise especially in STEM fields. As Malaysian Prime Minister YAB Dato' Sri Mohd Najib Tun Haji Abdul Razak highlighted, "We cannot be on the road to a knowledge intensive and innovation-led economy without talent to drive it." Duly, talent is unconditional, and most fundamental to pursue the vision and mission of 2020. Thus, while the nation continuously strives to build a high calibre and highly productive human capital base, enhancing knowledge of STEM remains a

priority. It is an established view that the role and contribution of STEM is critical in addressing various economic, social and environmental issues as a result of human endeavours in promoting business, trade and industry.

**Not Enough STEM Talents**

The low ratio of enrolment in science indicates that the supply of human resources was not inclined towards Sciece and Technologies (S&T) human capital. In other words, Malaysia will face a serious shortage of human capital in science fields as the target for students enrolling in the stream is not being met annually at the school and tertiary levels. Table 17.2 shows existing ratio and production rate of S&T human capital versus target.

**Table 17.2: Existing ratio and production rate of S&T human capital versus target**

<i>Level</i>	2012		2020	
	<i>Ratio</i>	<i>Production rate (Quantity/year)</i>	<i>Ratio</i>	<i>Production rate (Quantity/year)</i>
Science student in secondary school	30%	135, 000	70:100	315, 000
Science student in tertiary education	40%	40, 000	70:100	70,000

In spite of the substantial expenditure on education, there is a shortage of skilled labour in Malaysia. Labour force participation rates by education level show that the majority of workers only have at most, a secondary school education. In 2010, unskilled workers represented more than 75% of total workers employed; those with tertiary education and applicable skills made up only a quarter of the workforce. Only 28% of Malaysian skilled jobs are in the higher skilled bracket. Shortages in critical professions such as engineers, scientists and research and development (R&D) personnel are indeed limiting the evolution of current industries. Therefore, it is crucial for educational stakeholders to continuously develop and maintain the interest of students in STEM in order to produce first class human capital who possess scientific minds.

### **Research Objectives**

1. Identify the characteristics of mentor that can inspire and generate students interest towards STEM in Young Innovate Program?

### **Research Questions**

1. What are the characters of mentor that can inspire and generate students' interest towards STEM in Young Innovate Program?

## **17.3 METHODOLOGY**

This study is mixed method study. The instrument used in this study was a questionnaire and interviews. The questionnaire was developed by the researchers and called as YISTEM. There are 30 items listed in the study which consists of 10 items for each construct. For mentee's, these items were based on three constructs; interest, career and mentor characteristics.

While the construct for mentors are, mentoring competency, career and interests. Seven experts were referred to assess the items. After modification, the instrument has been given to one school teacher, one undergrad student and one secondary students. The purpose was to check the language. There were 27 mentors including four school teachers and 162 mentees who participated in this study. The school teachers were Teach For Malaysia (TFM) teachers. The selection of respondents was based on purposive sampling. There were 32 schools involved in state level of Young Innovate Program. The school were from Johor Bahru, Pontian and Batu Pahat. During the competition, only 27 schools entered the competition. The rest was withdrew from the competition. The instruments were distributed during the competition. Three winners were selected and went for national level Young Innovate competition. The competition was held during Kuala Lumpur Engineering Sceince Fair (KLESF). Rasch Model was used to analyse the data. Based on Rasch model, value for item realibility is 0.51 and the items dimensionality is 40.7%.

## 17.4 FINDINGS AND DISCUSSION

### Mentors' Background

(a) **Gender:**

**Table 17.3: Distribution of mentors' gender**

<i>Gender</i>	<i>Numbers</i>	<i>Percentage</i>
Male	12	40.7
Female	15	55.6
Total	27	100

Based on Table 17.3, 55.6% female mentors participated in this study and 40.7% were male mentors.

(b) **Age:**

**Table 17.4: Distribution of mentors' age**

<i>Age</i>	<i>Number</i>	<i>Percentage</i>
20 years old	6	22.2
21 years old	10	37.0
22 years old	3	11.1
23 years old	2	7.4
24 years old	3	11.1
31 years old	1	3.7
40 years old	1	3.7
Missing	1	3.7
Total	27	100

Based on Table 17.4, most mentor age ranges from 20-24 years old. The largest number of students on age that participate as a mentor in this study was 21 (37%) years old followed by 20 years old (22.2%) and 22 years old and 24 years old at the third place which share similar percentage of 11.1%. They were also school teachers who became mentors for this study. They were Teach For Malaysia (TFM) teachers. Two from them were 24 years old and the other 2 were 31 and 40 years old. One mentor did not mention her age.



(c) **Course:****Table 17.5: Distribution of mentors' course**

<i>Course</i>	<i>Number</i>	<i>Percentage</i>
Arts	1	3.7
Science	26	96.3
Total	27	100

Based on Table 17.5, majority of mentors (96.3%) participated in this study were from science course. Only 3.7% or one student who participated in this study was from Arts course.

(d) **Ethnicity:****Table 17.6: Distribution of mentors' ethnicity**

<i>Races</i>	<i>Number</i>	<i>Percentage</i>
Malay	16	59.3
Chinese	6	22.2
Indian	2	7.4
Others	3	11.1
Total	27	100

Based on Table 17.6, the highest number based on ethnicity of mentors who participated in this study was Malay (59.3%) followed by Chinese (22.2%). Other ethnicity was at the third place (7.4%) while Indian was at the lowest percentage who participated in this study.

(e) **Product theme:****Table 17.7: Distribution of mentors' product theme**

<i>Themes</i>	<i>Number</i>	<i>Percentage</i>
Agriculture & Marine	4	14.8
Manufacturing	3	11.1
Tourism	1	3.7
Agriculture & Marine, Manufacturing	6	22.2
Agriculture & Marine, Tourism	3	11.1
Automotive, Manufacturing	1	3.7
Automotive, Tourism	1	3.7

<i>Themes</i>	<i>Number</i>	<i>Percentage</i>
Agriculture & Marine, Automotive, Manufacturing and Tourism	1	3.7
Automotive, Manufacturing and Tourism	1	3.7
Agriculture & Marine, Manufacturing and Tourism	3	11.1
Agriculture & Marine, Automotive and Tourism	2	7.4
Missing	1	3.7
Total	27	100

Each mentoring group has to choose one from four selected theme. Each mentor may have from one to four groups to mentor. Based on Table 17.7, the result shows the highest theme chosen were Agriculture & Marine, Manufacturing (22.2%), followed by Agriculture & Marine (14.8%) and 3 themes share similar percentage at the third place were Manufacturing (11.1%), Agriculture & Marine, Tourism (11.1%) and Agriculture & Marine, Manufacturing and Tourism (11.1%).

(f) **Number of mentees guide by one mentor:**

**Table 17.8: Number of mentees guide by one mentor**

<i>Number of mentees</i>	<i>Number of mentors</i>	<i>Percentage</i>
3	1	3.7
4	1	3.7
6	1	3.7
7	2	7.4
9	1	3.7
11	1	3.7
12	4	14.8
13	1	3.7
14	1	3.7
15	4	14.8
16	8	29.6
Missing	2	7.4
Total	27	100

Table 17.8 shows the number of mentees that were guided by one mentor. The highest number of mentees was 16 while the lowest number of mentees was three. Eight mentors participated in this study has the highest number of mentees (29.6%). This is followed by four mentors which has 15 mentees (14.8%) and four mentor which has 12 mentees (14.8%).

### Characteristics of Mentor

This part will answer the objective of this study. Figure 1 shows the characteristics of mentors based on mentors' perception.

Based on Figure 1, there were six characteristics (item 2, item 4, item 6, item 10, item 3 and item 5) highly recognised by mentors in this study. The highest characteristics of mentor was understanding different background knowledge of STEM among mentees [ $logit = -.75$ ]. Then it was followed by mentor's ability to assess mentees' ability during mentoring process [ $logit = -.60$ ]. Thirdly, mentor always helps to find financial support [ $logit = -.55$ ]. Fourthly, mentor appreciates mentees cooperation [ $logit = -.38$ ]. Fifthly, mentor helps boost STEM knowledge [ $logit = -.29$ ] and finally mentor give good feedback to mentees [ $logit = -.12$ ].

Secondly, there were three characteristics (item 7, item 8 and item 9) recognised by mentor. The characters were help develop mentees' self esteem [ $logit = .10$ ], appreciate mentees' opinion [ $logit = .17$ ], and taking into account the differences of mentees' opinion.

Finally, one character is not recognised by mentors which was able to listen actively during mentoring session [ $logit = 2.03$ ].

As can be seen from Table 17.1, three mentors were ranked as excellent, eight mentors were ranked as good, nine were ranked as average and finally, seven were ranked as the lowest in terms of their mentors' characteristics. Based on these table, below are the characteristics of each mentor according to the profiling.

### Characteristics of Excellent Mentor

From Table 17.3, all of the three excellent mentors were male aged 21 years and 20 years old. Excellent mentors find they listened

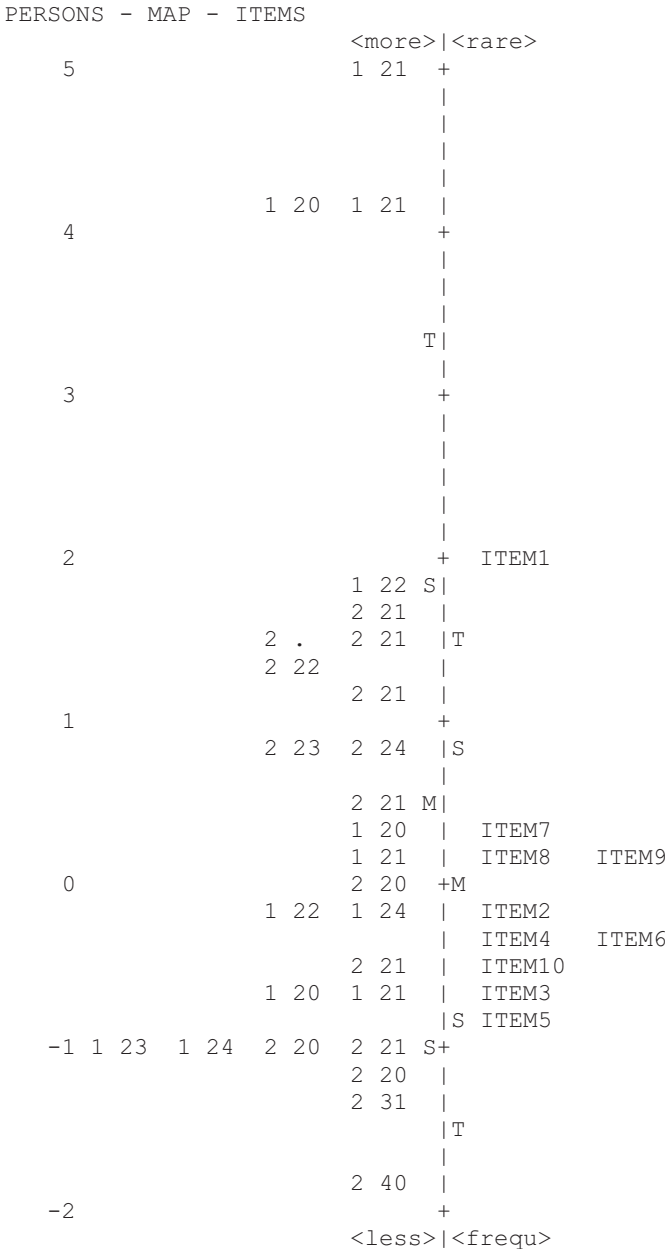


Figure 17.1: Characteristics of mentor

actively during mentoring session (Bethany, 2014; John, 2013). Based on previous study, most STEM fields are dominated by men (David Beede et. al., 2011). Despite male mentors less than female, they defeated female mentors. No female mentor possessed excellent characteristics of mentoring.

### **Characteristics of Good Mentors**

Eight mentors were categorised as good. Most mentors who were categorised as good were females aged from 21-24 years old. Only one male was categorised as good who was age 22 years old. Good mentors were also found to become excellent mentors where they should actively listen during mentoring session (Bethany, 2014; John, 2013).

### **Characteristics of Average Mentor**

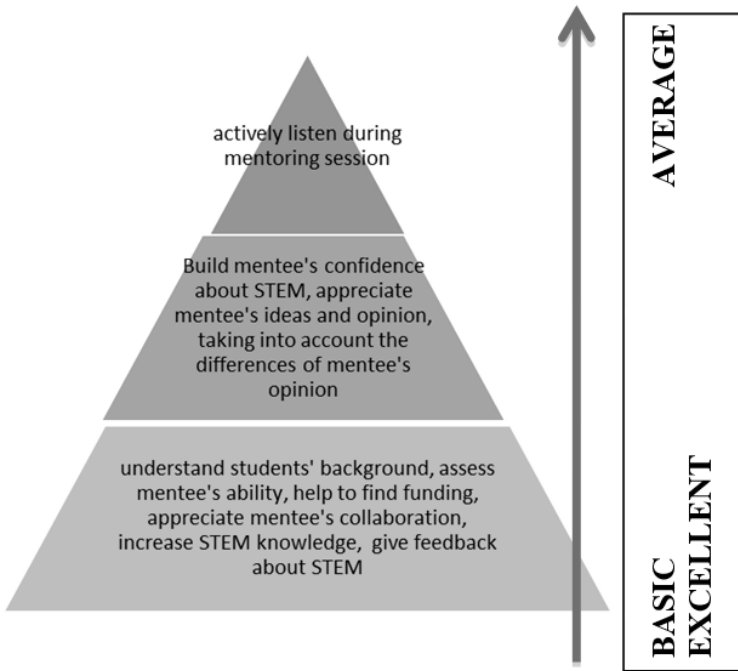
There were nine mentors who were categorised as average in mentoring skills. They consisted of nine females and six males aged from 20-24 years old. Other than being active in the discussion with mentees, they should also be more aware of the differences in opinion between the mentees and to improve the mentees' self confidence in STEM.

### **Characteristics of Low Mentor**

There were seven mentors who were low performing. They consisted of five females and two males age ranked between 20-40 years old. In general, these mentors requires mentoring guidance because their abilities in all aspect of mentoring were weak. Despite the mentors were weak, their overall performance showed that they were above difficulty of the item level. Figure 17.2 shows characteristics of mentors should posses which can be guideline to become excellent mentor in the field of STEM.

## **17.5 CONCLUSION**

As a conclusion, three mentors were ranked as excellent and all of them were males. Eight mentors ranked as good, nine ranked as average and finally, seven ranked as the low in term of their mentoring characteristics. Despite the mentors were weak, their



**Figure 2: Mentoring characteristics**

overall performance showed that they were above difficulty of the item level. Based on this study, the basic characteristics to be a mentor they should; understand students' background, assess mentee's ability, help to find funding, appreciate mentee's collaboration, increase STEM knowledge and give feedback about STEM. On the other hands, to upgrade their level of mentoring they should posses; build mentee's confidence about STEM, appreciate mentee's ideas and opinion, taking into account the differences of mentee's opinion. The top and the harders characteristics to achieve as an excellent mentor was listen actively during mentoring session.

**Acknowledgment**

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## Competencies of Islamic Teachers Education in Item Build: Issues and Challenging

*Norhaslina Binti Adam and Adibah Binti Abdul Latif*

### 18.1 INTRODUCTION

Philosophy of education focus on the aspect of development of the individual as a whole, balanced and integrated to form human capital both in terms of physical, emotional, spiritual and intellectual (JERI). Successfully in this philosophy can be achieved is through the education system which carried out by the standard procedure that implemented in correctly and accurately.

Accurate measurement is very important to ensure that a test is valid and reliable (Shamsina, 2013). Although pedagogy was implemented very well, but the measurement system failed, it doesn't provided meaningful and positive impact. Items build is a very challenging task. Without very good knowledge and understanding, it can't be done easily. Some teacher take it easy so till ignore the criteria of a good test items that can measured the level of real student performance of a certain subject. Therefore, the competence of Islamic teachers in item build very important to



assure students not only learnt about religion by memorizing, but can learn how to solve problems with high level thinking.

## **18.2 HIGHER ORDER THINKING SKILLS CONCEPT (HOTS)**

God gave a high degree to humanity through his creation with the ability to think that every consideration and action taken is good. The concept of thinking in depth is coincide with the teachings of the Quran (Sidek Baba, 2006). Thinking is an activity which the mind is used to solve problems or make decisions based on existing information and experience. Thinking activities needs specific skills to be mastered in the hierarchy of cognitive skills as much as higher order thinking skills.

Higher Order Thinking Skills (HOTS) is defined as a process of using the mind to find a meaning and understandings about something, exploring the possibilities of ideas or inventions, make a decisions and solve problems and also metacognitive processes experienced (Malaysian Examination Board, 2013). HOTS happens when someone gets new information, stored in memorizing, associating with the existing knowledge and used that information to solve a particular purpose or complicated situation (Yee Mei Hong, 2010).

## **18.3 COMPETENCE OF TEACHERS IN BUILD THE HOTS ITEMS**

Besides needs to mastering in curriculum and pedagogy, teachers also need to master the assessment aspects. Teacher competencies like a knowledge and understanding of assessments in education system very important. It is because teachers plays main role that drives students to encourage them in high levels thinking. Every teachers required deep knowledge and skills in item build which the items can give specific information such as student performance and enrichment activities that should be implemented (Abdul Halim, 2015). Each test built must related with learning process and incorporate HOTS elements. There are three elements can be used to measure teacher competence in items build as follows:

### **Knowledge and Understanding of Constructs Measured**

This aspect requires items build to know very well construct to be measured so that the item capable of measuring what is to be measured. It coincided with the constructs of Islamic Education subject in Table Test Specification (JSI). For example the constructs that are often used for Islamic subjects is to analysed, evaluate and generate the ideas.

### **Knowledge and Understanding about the Content**

Islamic Education curriculum contents focused on understanding the meaning, wisdom and understand the hadith as a source of law and human life guideline. Islamic teachers should always dominate HOTS elements in order to coincide with the philosophy of Islamic Education curriculum that not only help students get knowledge but encourage them to think based on al-Quran and as-Sunnah.

As a good items build, also needed a good understanding of the philosophy, goals and objectives of the Islamic Studies. The goal of Islamic education is to produce Muslims with knowledgeable, faithfully, competent, good attitude and precious based on the Quran and as-Sunnah and can contribute to religion and nation. Mastering the construct to be assessed whether the unit, themes and context. Teachers also must have a high understanding of the syllabus content (SP). Syllabus refers to the specific skills to be mastered as a student in the hadith topics of Islamic Studies.

### **Creative Skills**

Islamic Teachers should be more creative in imaginative and consideration in applying the knowledge and skills of items. Teachers need to know and create an items that can be measured student ability to think deeply and solve the problems which related in real life.

## **18.4 ITEM BUILD IN HIGHER ORDER THINKING SKILLS (HOTS)**

Effectiveness and successful implementation of the higher-order thinking skills assessment is highly dependent on knowledge and

skills of teachers to understand the basic principles and guidelines for items outlined. This is because teachers plays a very important role as the agent of the effectiveness of the direction, philosophy and goals of education in addition to acting as the executive who is always willing and obedient to the instructions and the current needs of education worlds. Therefore, the effectiveness and quality of the HOTS items produced HOTS is compete with teacher's understanding and mastering the basic principles and guidelines of each items build set by the Ministry of Education (MOE).

Item is a tools that used to get a response from the students as evidence of learning outcomes. Evaluation is the process of making the judgments on the quality of the items that are built on the principles of items and elements of good items. For example, HOTS items for Islamic Studies. To ensure quality items built comply with the criteria established and outlined by the MOE, the ministry should ensure that teachers affected by exposure, knowledge and skills necessary for evaluation methods, reporting and improvements in HOTS implementation from effectiveness and successfully aspects.

## **18.5 CHALLENGES IN ITEM BUILD FOR HIGHER ORDER THINKING SKILLS (HOTS)**

In education system nowadays, the analysis item has been studied in most colleges and universities but not practically in schools although teachers were aware of the importance of these activities. It is caused by several factors such lacking of free time for teachers to carry out activities of analyse items for give more focus and priority to main tasks like teaching. Furthermore, teachers now likes to use an existing item in the market as book shop because to build its by own self are quiet difficult with assumption that the selected items are good quality. In addition, the teachers also do not have skills to build the item because of lack of knowledge and understanding about items and HOTS elements.

In order to build a quality item bank, cooperation between teachers, district education officer (PPD) and specialist in item build test is very important. This is because these groups can cooperate

with each other and used their experience to produce bank items for district or state level. Its will helps in generating support materials which can be used at the school, district and state as references for others teachers which very limited sources to get it.

## 18.6 RESEARCH BASED ON ITEM HOTS (HOTS)

Item build is always become a major focus for makers of items. However, there are not many studies focusing on items that emphasize elements of higher order thinking skills especially for Islamic Studies. Studies by Jee et. al., (2014), listed the issues that arise in relation to tests build is due to the lack of competence of teachers in the construction of the test, including the construction of organizational aspects of the test, the process of designing tests, and teachers lack the knowledge to understand the element in building the test. Further study by Hilezan (2013) focuses on the problems faced by teachers in making items such as the inability of the test to assess the level of higher thinking, the lack of various tools used in a test build teacher-made and tests that do not accurate with the lesson content.

Studies by Johari (2014) showed that the mathematics teacher did not have knowledge of aspects of assessment HOTS aspects that will affect the implementation HOTS process in school. The findings also show that teachers still not exposed to knowledge assessment thoroughly and accurately. It is supported by a study by Noriza (2015) showed that the high order question is difficult to build. It was due to lack of knowledge and understanding in building HOTS items and problems with in-depth understanding of the three applications that cover the HOTS level such as application, analysis, synthesis and evaluation.

Studies by Nor Hasniza et. al., (2016), HOTS item does not comply with standards and specifications in the item during the pre-test. As a result, it makes difficult for teachers to give an appropriate response to the items that are built. In addition, limited resources and lack of understanding of teachers in the HOTS items another factor of difficulty in the implementation of HOTS. Although different from the findings of a study by Norasmahani

et. al., (2015) who said that the teachers' understanding and assessment in HOTS item is high but teachers still need to be exposed through courses, workshops and in-service training.

## 18.7 CONCLUSION

To implement higher order thinking skills among students, the teacher's role in assessment is significant. Teachers need to assure the items were systematically developed in generating a quality questions and relevant to the objectives of the syllabus. HOTS is a new assessment and require teachers to improve competence in making items that comply with the guidelines and criteria for the construction of the item. The level of competence of teachers in HOTS item build should be evaluated. In conclusion, the competence of teachers in the items build for teachers play an important role towards professional class teacher. Competence enables the teacher to control quality tests and the information will benefit the students and teachers in terms of teaching improvement, knowledge and higher-order thinking skills.

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## Perceptions of Flood Disaster (2014) Among Children's Victims: A Phenomenological Study in Kelantan, Malaysia

*Asma' Ahmad Shukri, Zakiah Mohammad Ashari and Wan Ahmad Fuad Wan Ahmad Kamil*

### 19.1 INTRODUCTION

In 2014, Malaysia was stroked by the biggest flood disaster after since 1927 and 1967 (Mona Ahmad, 2014) and the most affected state involved is Kelantan. Majority of Kelantan residents suffered damaged to their properties, shelters, belongings and supplies (MKN reports, 2014) from the flood water that naturally attacked properties and people especially children (Akhter *et. al*, 2015; Hua *et. al*, 2014, Fillmore *et. al*, 2011; Forthergill & Peek, 2011). Those children were left facing food, electric and water supplies interruption (Rodriguez-Llanes *et. al*, 2016; Ian Douglas, 2009) home or properties damaged (Gibbs *et. al*, 2015; Shah, 2011) and loss of personal belongings (Mc Cann, 2015).

Thus, to understand children effects aftermath of disaster, Piaget (1959) stated that the perception of those children is important to retrieve a phenomenon based on their world view because they have a limited life experience compared to adults. Meanwhile, in

(2015) King and his co-worker believed that perception of children responses can be identified based on death and loss of personal thing and threats to life. In addition, Shonkoff *et. al.*, (2011) stated that fear and anxiety experienced by young children during disaster will make them perceived the world as threatening. In the same year, Kellens *et. al.*, also mentioned that the knowledge about human perceptions on natural hazards may further provide important information to take precautions. Sekuler and Blake (1994) also believed that perceptions had impaired the ability to go through the life and making decision. Meanwhile, the study by Wang (2002) mentioned that perceptions may affect almost all cognitive life functions.

All these previous study presented the importance of understanding the children's perceptions in the aftermath of flood disaster. However, there is a surprising paucity of empirical research focusing specifically in Malaysia context. So far, there were only few studies that had examined the consequences of flood disaster towards children's perceptions. Therefore, the aim of this research is to investigate the effects of flood disaster towards children's perception in in Kelantan (2014).

## 19.2 METHODS & PROCEDURE

This study applies the phenomenological study methods to collect the data from 8 children within 10 to 11 years old that studied in the districts of Pasir Mas, Kelantan. Darren (2007) believed that phenomenological design is the best method to observe on how people perceive at any particular experience that is happening in real-life. Victims' experiences who endured a natural disaster can be seen through the link with their behaviour, thinking and emotion that changes aftermath of the disaster (Bell, 2013). Thus, by using phenomenological design, it helped to understand the flooding phenomenon effect much better.

## 19.3 RESULTS

Researcher was able to predict the children's thinking and behaviour by understanding the children's perception. The



findings of this research were analysed after reviewing the text of interview transcripts. Priority of the data was relevant to the research questions were categorized based on the same pattern. The patterns of the themes extracted from the interviews revealed that, there are two perceptions of children, which are (1) Cognitive perceptions and (2) Affective perception.

### **Cognitive Perception**

Cognitive perceptions are the likelihood of perception from a set of risky events that occurred during the disaster. Understanding the children's cognitive perception help to measure their perception on the world after the disaster did attacked them and their families' life and belongings.

#### ***House will be Damaged and Destroyed***

House damage or destroyed were related to the water level that engulfed their house during the flood disasters. In this research, several of the students selected experienced it and need to clean up all the mud inside their house after the flood ended. Their house colour were also changed because of the floods. They can see the sign of water level at the wall of their house. In the end, the respondents perceived that their house will be damaged or destroyed by the flood in the future. They were worried about their house even if they had been evacuated to other places and if it swept away their house if it happens again in the future. Some of them had also experienced a hard time when the big drain behind her house filled with trashes, get into her house.

“...I wonder if my house was swept away by water if I back home again after the flood...I believed it might happen in the future flood disaster...” (Participants 1, girl, 10 years old)

“...the water level from the drain increased so fast, it get into my house and bring together all the trashes inside it...it was horrible since the water level had achieved my parent's waist...” (Participants 3, girl, 11 years old)

#### ***Personal Belonging will Loss or Damages***

The respondents also experienced the loss of personal things and beloved belongings that bring memorable meanings to them.

"...the wooden desk that my father made it was broken because it was immersed in the flood water...I feel worry if it happen in the future....."

(Participants 1, girl, 10 years old)

"...yes, I do loss my best bicycle in the flood disaster...we could not save it...we finally found it covered with mud after the water receding...I need to be aware in the future..."

(Participants 5, girl, 10 years old)

"...my bike was swept away by water...we just find it after the flood end...it may broke it again in the future..."

(Participants 7, boy, 11 years old)

### ***Food Supplies will be Interrupted***

Flood disaster had disrupted their food and water supplies. All respondents mentioned that they were facing some difficulties to get foods and waters during the disaster. This experience might lead them to perceive that this kind of emergency situations might occur again in the future.

"...we did not have enough foods...the water supplies also were interrupted...me and my family get the water from my cousin's house. I know it may happen in the future..."

(Participants 2, girl, 11 years old)

"...we did not have enough stocks neither for food nor water...flood may affect me if the flood occurred again"

(Participants 3, girl, 11 years old)

"...I and my family had to ration for food and water in the flood disaster...I believe all victims of flood may feel that way..."

(Participants 7, boy, 11 years old)

### ***Parents, Relatives and their Selves Might get Hurt or Injured***

There is some of the respondent that experienced thrilling incidents in the flood disaster. This might lead them to perceive that their family member, parents, siblings, grandmother or relatives and even themselves might get hurt or injured if the flood attacked them again in the future.

“...my sister suddenly dropped into the flood water with the level of adults’ height...we want to move from our house to my grandmother’s house. I need to be aware in the future...”  
(Participants 1, girl, 10 years old)

“...my sister fainted when the robber gets into our house... they don’t care even if it was flooded...I believed if this incident will happen again in the future flood attacks...”  
(Participants 2, girl, 11 years old)

### **Affective Perception**

Affective perceptions are about the children’s feelings of worries and sadness after the events and how the children cognitive perception may reflect on their feelings in the flood disaster situation. In this research, all eight respondents were showing their affection or feeling of worry based in their experiences in that event. Some of them felt loss of something they really care, while another were worried of their house, their personal belongings and even some of them worried about the interruption of the foods and water supply. Therefore, researcher believed that affective perception is correlated with their cognitive perceptions.

### ***House will be Damage and Destroyed***

The respondents’ houses were affected by flood disaster. It caused them to feel worry, anxiety and perceived the same feeling in the future.

“...I feel afraid if the flood disaster occurred again...because I might see corpse in the flood water...and my house might swept away...”  
(Participants 1, girl, 10 years old)

“...I feel very sad when the water immersed grandfather’s house. It also damaged my new home...it still in construction but the flood swept away everything...”  
(Participants 6, boy, 11 years old)

### ***Personal Belonging will be Loss or Damaged***

All children shared the same experiences when they had been asked about their personal belonging. They perceive that flood disaster

will destroy many personal belonging and they feel sad, worry and afraid of the same situation in the future.

"...I feel very sad looking at my bicycle...I am worry if the same situation might happen in the future..."

(Participants 5, girl, 10 years old)

"...I felt so sad. It was my best bicycle and I always use it to hang out with my friend...I always got nightmare because of it..."

(Participants 7, boy, 11 years old)

### ***Food Supplies will be Interrupted***

Food and water are the human basic needs. If either one of the sources was interrupted, it will trigger feeling of worries, anxiety, afraid and fear if the supplies could not be restock in a short period especially during the flood disaster. These feelings will let the victims to perceive the same feeling in the future.

"...I was afraid at that time if we out of food and water stocks because we shared with many people in that house..."

(Participants 3, girl, 11 years old)

"...I felt worry for the future if we can't survive without foods or water since we were staying alone in our house without any sources..."

(Participants 7, boy, 11 years old)

### ***Parents, Relatives and their Selves Might Get Hurt or Injured***

Parents and relatives are the main sources of children's worry, sad, fear and afraid if something terrible did happened to them. The same feelings perceived by respondents after experiencing the situation in the flood disaster.

"...my sister got nightmares, she was very afraid, cried...and I think she had trauma even after the events. She could not sleep if mother did not huge and calm her...I was also afraid because of that incidents because I was there at that time...It might also happen to me..." (Participants 1, girl, 10 years old)

"...my sister got nightmare after the incidents. Same goes to me. I was worried if something bad would happen to my family if the floods attack us again..."

(Participants 2, girl, 11 years old)

## 19.4 DISCUSSIONS

This finding is somewhat surprising with other previous research that showed a consistency effects on children's perception in flood disaster. The children were facing big challenges after the flood attacked their home, disrupting their food and water sources, damaging personal belongings and also killed or hurt their family or close people to them. It highlighted that the children in Malaysia also have the same feeling with other children in other countries that are facing flood disasters. These experiences led them to perceive the situations and events based on their cognitive and affective aspects. The mind will be working together with their feelings to look into their future life in different ways. In most cases, children were experiencing the fear, fright, afraid, sad and nightmares that will give an effect on their perception about the world in the negative ways and perceived the world as threatening after disaster and it leads for precautions. Miceli *et. al.*, (2008) also agree that children's perceptions in flood disaster will perceived the likelihood of the flood risk and the estimation of possible consequences regarding to the feeling of worry of a flood.

## 19.5 CONCLUSION

Returning to the question posed at the beginning of this study, it is now possible to state that exploring children's perception is the most important way to understand how they perceived their world especially in some certain and tragic situations. The children's voice might be seen unimportant but it actually presents in all causes of their actions in the aftermath of the disaster. This study set out to establish effects of flood disaster on children's perception and confirm the consistency of the findings with other previous research. As a conclusion, this study unveils just the tip of iceberg of the children's issue in flood disaster. This research will serve as a base for future studies towards helping the children to develop their life and adopt with the situation aftermath of disaster.

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**THEME**

**4**

**Leadership and  
Organizational Behavior**





## Understanding the Pedagogical Role of Service-Learning for Preparing Citizen Leaders in Higher Education

*Hamdan Said and Iqbal Ahmad*

### 20.1 INTRODUCTION

Service-learning is rapidly emerging as a leadership development strategy in higher education (Furco, 2002). A major shift is taking place in the role of higher education after the emergence of service-learning as pedagogy (Butin, 2003). Researchers believe that traditional ways of teaching and learning such as lecturing or transmission methods are no more valuable and effective for preparing and training of future citizen leaders, because, these methods makes the learners dependent and passive. Students merely get knowledge about leadership but they cannot practice it. This gap was bridged by service-learning by providing learners wider opportunities to not only understand the concept of leadership and but also know how to practice it in a real life situation (Westheimer & Kahne, 2004).

Present day societies need more active citizen leaders due to the fast changes taking place in every department of life. In this

scenario, higher education institutions are seen as the ultimate industries to prepare future citizen leaders who could not only grapple with the existing challenges but also inspire and guide the coming generations towards a better world (Barnett, Silver & Grundy, 2010). Writers suggest that with the increasing trends and changes in the present day digital age, the role of higher education needs to be redefined and bordered. This trend has occurred most recently in higher education where service-learning is used as an approach to prepare future citizen leaders using community context rather than classroom as a learning platform. Unlike, previous practices where higher education institutions dominantly focused on transmitting knowledge and information to students through traditional pedagogical means and instructional techniques, However, more recently, the attention of researchers and educators has shifted towards self-directed and more independent teaching and learning approaches (Butin, 2006).

Service-learning has already been used and found useful as pedagogy for leadership training. For example, in USA many renowned universities have adopted service-learning as pedagogy for preparing future citizens leaders. This was already incorporated in the curriculum of higher education through the initiative "learn and serve America". As a result of this initiative, service-learning was found to be highly effective in promoting citizenship skills of people. Thus service-learning is considered as a movement rather than a teaching and learning strategy (Westheimer & Kahne, 2004).

Researchers also strongly believe that as an instructional method service-learning has already proved its academic strength. Hence, it justifiably plays an important and key role in developing leadership skills of future citizens (Liu, 1995; Lueddeke, 2003). However, other researchers are still skeptical in this regard and believe that there is a need to redefine the role of higher education institutions in the developing world context related to training of citizen leadership roles of people (Bringle & Hatcher, 2000). This paper contributes to this gap in the current literature by reviewing the existing literature on the role of service-learning as pedagogy to prepare future citizen leaders. Hence, based on the review of literature, the

major purpose of this paper is to suggest ways to higher education institutions how to use service-learning as a pedagogical tool to prepare future citizen leaders.

Service-learning has already made a debut in the field of higher education around the world. However, there are still many questions unanswered related to the pedagogical role of service-learning such as how service-learning can contribute towards developing the citizen leadership skills of students? What are the parameters with which service-learning will be operated in universities and colleges which are already occupied with transmission methodologies? How service-learning contributes towards development of leadership skills of students by using real life experiences (Antonio, Astin & Cross, 2000). Researchers believe that integration of service-learning in higher education institutions by creating learning communities will help the students acquire improved citizen leadership skills. This goal can be achieved by engaging students in practical situations where they demonstrate their abilities and skills (Bell, Furco, Ammon, Muller, & Sorgen, 2000). Thus it is suggested that higher education institutions should enable students to participate in such learning which provides them real opportunity to learn and practice leadership. For this purpose, there is a need of sustainable collaborations between the higher education institutions and communities. In this paper I attempt to query how and to what extent service-learning can help achieve this long standing need of Pakistani higher education and how it can be embedded within the academic parameters of higher education institutions. More specifically, this paper assesses the pedagogical role of service-learning as a teaching and learning method for preparing civic leaders through higher education.

## **20.2 SERVICE-LEARNING**

Service-learning is an educational method that enables students to participate in active learning that develops their abilities. This participation meets the needs of communities on one hand and students academic development on the other (Butin, 2003). Service-learning is a method of teaching that provides students opportunities to acquire and apply their knowledge and skills for

addressing real life needs in the communities (McPherson, 2005). Highlighting the importance of service-learning Eyler and Giles (1999) have stated that service-learning is a form of experiential education where learning occurs in a cyclic action and reflection when the students work through application of their knowledge and skills gained in the classroom to solving community problems as well as reflecting on the experience that they have in the community. This helps them to achieve their objectives of serving the communities by meeting their needs and developing deeper understanding of the issues and problems. Other writers have suggested and stressed on providing structured environment to students to enable them to make discoveries in their own styles of leadership during service-learning activity (Rama, Ravenscroft, Walcott & Zlotkowski, (2000). This may happen when they will lead, communicate and take decisions related to issues and explore solutions through constructive criticism with faculty members, other students, community representatives they serve. This study defines learning community as a group of people engaged together in an intellectual discourse and interaction for enhancing learning (Cross, 1998).

### **20.3 SERVICE-LEARNING IN HIGHER EDUCATION**

Service-learning is becoming rapidly popular in higher education around the world. In the developed world, it has already been recognized and integrated in higher education institutions due to its effectiveness as a method to prepare citizen leadership (Westheimer & Kahne, 2004). For example, in USA, according to estimation, more than 950 universities and colleges have joined the membership of Campus Compact. These higher education institutions are deeply committed for promoting citizenship purpose of higher education especially focusing civic leaders. Thousands of faculties are fully engaged with college and university students in developing and practicing service-learning every year. However, on the other hand, in the developing world, service-learning is now gaining recognition as a civic leadership development method. But still researchers and practitioners are looking to answer many questions related to its application and

implications in the context of higher education (Said, Ahmad, Hassan & Awang, 2015). For example, among the major issues are resource mobilization, collaboration and community engagement. In the developing world context, the higher education institutions are more or less geared towards knowledge transmission rather sharing and construction (Yurio & Ye, 2011).

Service-learning is a transformative teaching and learning method. It is rooted in the constructivist perspective of education where students are supposed to reconstruct their knowledge by applying the newly gained information and skills in real life situations. This philosophy of education encourages students to work independently and creatively. However, in the developing world context, the pedagogical practices in higher education are mostly based on transmission philosophy that encourages students to rote learn content and reproduce it on demand of the teacher. These issues exist in almost all the higher education institutions in the developing world (Daly, Baker & Williams, 2013).

The spread of service-learning over the last decades in higher education in the developed world has provided new insights for the developing world to embrace service-learning as a scholarship of engagement. For producing citizen leaders, there is an urgent need to institutionalize service-learning at higher education in graduate and undergraduate research community based research as well as developing stronger relationships with the local communities (Bringle & Hatcher, 1996). This will provide new outlooks and venues to the institutions of higher education in the developing world. In the context of developing world especially in Pakistan, there is much need to prepare active and responsible citizen leaders rather than using transitive practices to produce passive citizens.

As a scholarship of engagement in higher education, service-learning creates a link between theory and practice, cognitive and affective domains and educational institutions and communities. The role of service-learning as a civic pedagogy breaks the bifurcation of academic goals with live reality for promoting critical inquiry and reflective practice across complex, local, national and international scenarios. Currently, the most debated issue related to application of service-learning in higher education is about its

academic identity whether it should be integrated and treated as a curriculum or co-curriculum course (Bringle, & Steinberg, 2010). Unlike the developed world, in the developing world, service-learning is still recognized as traditional pedagogy and declared as co-curricular activity and its foot prints are still uncertain. It is considered a threat to the age old and well positioned traditional pedagogies (Said, Ahmad, Mansoor & Awang, 2015).

Currently, service-learning advocates have started devoting intensive efforts for institutionalizing service-learning within higher education (Felten & Clayton, 2011). As service-learning theory and practice has attained recognitions and a critical mass around the developed world as a civic pedagogy much attention is needed to be paid towards its role in promoting civic goals of higher education in the developing world context especially in Pakistani context where service-learning has recently emerged as a teaching and learning pedagogy at school level. It is yet to be institutionalized in the higher education. In this article, I take the opportunity to critically look at the possible pedagogical role of service-learning in preparing the much coveted and long demanding need of developing citizen leaders of Pakistani society which has not yet realized due to application of traditional transmission based teaching and learning pedagogies.

Service-learning possesses immense transformational ability to prepare civic leaders through higher education (Butin, 2003). It has already been recognized as a sustained, immersive and consequential pedagogy. However, there is a need to further foster its application in higher education by explicating the currently practiced theoretical foundations and pedagogical practices which may inhibit or constrain the application and implementation of service-learning in Pakistani higher education context and the challenges need to be identified and addressed. This will offer substantial alternatives and opportunities to integrate and institutionalize service-learning in the higher education of Pakistan. This paper attempts to situate service-learning as a movement towards achieving the long awaited goal of civic education in Pakistan. Additionally, this paper presents an analysis on service-learning as civic pedagogy that further creates new venues for

researchers and writers in Pakistan to do more research on service-learning practice in the Pakistani higher education context, its challenges and opportunities.

## 20.4 SERVICE-LEARNING AND CITIZEN LEADERSHIP

Service-learning provides students ample opportunity to learn and practice leadership during service experience by discovering talents and gaining meaningful personal insights about who they are and what they are able to do, and who they would like to become (Gottlieb, & Robinson, 2006). Moreover, participation in service-learning helps students in shaping their values, aspirations and career paths which ultimately improves their leadership vision and skills as they work in collaboratively with community. Students learn that effective leadership gives opportunity to others by encouraging them to actively participate. This creates a synergy for developing a learning community in which students learn leadership and practice it (Eyler & Giles, 1999).

Leadership is defined as the ability through which people inspire others for making them to make commitment for accomplishing organizational goals (Goetsch, 1992). Most of the organizations today put a demand for effective leadership from the higher education institutions. They expect the higher education institutions to prepare active citizen leaders. It is essential that higher education institutions should focus their attention from transmitting merely knowledge to enabling them to create knowledge, critique their own role and practice leadership. This can be purposefully done by integrating service-learning in the curriculum of higher education institutions as a compulsory course. For this purpose, essential different leadership skills can be included in the course like communicating, planning decision-making and evaluating which are compulsory for people to lead others. These skills may be taught through service-learning in the community in a real life situation (Govekar & Rishi, 2007).

Service-learning in higher education will increase these leadership skills through learning and action in the community. This also enhances the critical thinking and organizational leadership



skills necessary for managing human and material resources in the organisational context. Using a service-learning experience, the citizen leadership skills of students can be assessed in many ways such as cooperative education, internships, job shadowing and so on. Service-learning has yet to emerge in higher education of Pakistan, hence, most students will benefit from this if it is integrated in the curriculum of higher education. Service-learning provides wider avenues for students for putting into practice their knowledge gained in the typical traditional classroom.

It is strongly believed that integration of service-learning should enable students to interpret their own experiences and think like leaders. They should be able to generate ideas for taking decisions, communicate effectively orally and visually to others as leaders. For this purpose, the service-learning supervisors must set personal and collective goals for students to accomplish over a period of time through service-learning platform based on the principles of effective leadership, active citizenship and participative servant leaders (Kahne, Westheimer & Rogers, 2000).

## **20.5 PEDAGOGICAL IMPLICATIONS OF SERVICE-LEARNING**

The advocates of service-learning see it as a transformative pedagogy. It connects classroom with the real world experiences, theory with practice, cognitive with affective. It negates the banking concept of education where students are treated as passive recipients rather than active participants and creator of new knowledge. It also negates the role of faculty members as merely transferor of discrete and quantifiable knowledge. On the other hand, service-learning fosters respect for each other, reciprocity of colleges and universities with the community (Kezar & Rhoads, 2001).

Service-learning is extensively been used in educational institutions all over the world. However, it has been observed that still 83% of the faculty use lecturing as the primary instructional method in the classrooms (King, 2004). Thus irrespective of the epistemological differences, a large number of faculties in higher education prefer the normative model of teaching and learning

which non service-learning oriented. Thus there appears to be a very limited use of service-learning in higher education institutions. There is need to develop a consensus among service-learning practitioners that how it can be used as a tool for preparing active citizen leaders through higher education. Otherwise, service-learning literature is full of discussion on how students may understand cultural differences and social justice issues in the community by participating in service-learning (Furco, 2002).

There are issues associated with service-learning pedagogy. It may be a luxury for many students but many others cannot afford it in terms of time, resources or job opportunities. In the present day, service-learning is beginning to explore these theoretical and pragmatic dilemmas in the field of higher education in the context of developing world where service-learning is still considered an expensive educational enterprise (Lane, 2008). In this regard, arguments about the pedagogical implications of service-learning in higher education can be made based on the transformational and incrementalist perspectives. The former argues that these issues of service-learning related to its applications in and implications for higher education may take more time to be resolved. But the latter argues that these issues will become irrelevant after some time in higher education (Butin, 2003; Prentice, 2011). Despite the debate about the pedagogical implications of service-learning in higher education, majority of the service-learning researchers believe that service-learning improves leadership skills of students who participate in it. This has been proved through feedback from employers in many organizations. For example, as compared to service-learning, students from the traditional classroom a large number of students entering in different fields have little or no impact in terms of leadership roles as employees. This was also observed in one study that students who participated in service-learning demonstrated better leadership skills in organizational operations (Morgan & Streb, 2003).

Researchers argue that this becomes possible when students are engaged in hands on experience during service-learning activity. It is interesting to see that students who participate in service-learning show extra willingness to take more time to serve community

people and solve the problems faced by people in underprivileged areas (Bringle & Hatcher, 2009). It is also suggested that this type of on-campus hands on experience opportunity may be provided to students of higher education institutions like colleges and universities to help them with the necessary hands on skills and professional skills as citizen leaders (Quezada & Christopherson, 2005).

## 20.6 CONCLUSION

Service-learning enables students of higher education to gain valuable leadership skills. As a result of participating in service-learning, students develop different leadership skills such as problem-solving, critical thinking, public speaking, decision-making and interpersonal skills. The service-learning experience helps them to redefine their communication, teamwork and leadership skills through receiving feedback from their peers, faculty members and community workers. Based on the review, it is suggested that service-learning may be introduced in the higher education institutions as a compulsory curriculum course rather than a supplementary co-curricular subject. Although, service-learning cannot change the face of higher education, however, it may produce citizen leaders who are better equipped to face the fast emerging changes and challenges of the present age both in the developed and developing world context. As a developing country, Pakistan also faces many issues such as terrorism, political instability, social disharmony, communal disruptions and so on. Integration of service-learning as a civic pedagogy in its higher education institutions may contribute towards mitigating and minimizing these issues. Service-learning is a transformative teaching pedagogy not a radical theory. Rather it is a disciplined change through participation and reciprocation rather than isolation and dictation like the traditional lecturing method of teaching and learning. There is a need that researchers and practitioners must redefine service-learning as a universal, coherent and neutral pedagogical practice while deciding about its application in higher education.

The integration of service-learning has already begun in the developed world context, where students find wider opportunities to put their theoretical knowledge and skills into practice while working with community, peers and faculty members in community context during service-learning activity. This hands-on-experience has boosted leadership skills among the students. However, there is a need to promote the integration of service-learning in higher education of the developing world including Pakistan where it is still in its infancy stage as citizen leadership development pedagogy.

For integrating service-learning in higher education in the context of developing world especially in Pakistan, it is essential that managers and practitioners must precisely decide about service-learning as an academic tool to develop citizen leaders. For this purpose, there is a need to answer few question such as how service-learning will sustain itself as an academic discipline within the age old normative models of teaching and learning, how service-learning will control its knowledge production, what type of debate and discussion may help to enfranchise service-learning in the higher education institutions and to face the challenges, what issues are worthy of study in higher education by using service-learning, what mode of inquiry is needed and to what ends. This paper suggests that service-learning models, practice and policies must be thoroughly studied for institutionalizing service-learning in the higher education as a methodology for preparing citizen leaders.

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## The Effect of Transformational Leadership and Life Satisfaction Towards the Performance of Christ Cathedral Church

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### 21.1 INTRODUCTION

Christ Cathedral Church (CCC) is one of the big and dynamic churches in Indonesia. The community started only with 25 people until now already has 7000 congregations. As a local church, CCC is overseen by three Lead Pastors, helped by 10 elders and 55 fulltime staffs. CCC has around 90 leaders who lead six hundred subordinate volunteers in 25 fields of ministry. The church's grand vision is to be a high-impact church concluded on three purpose statements; life-saving, life-changing and life-empowering. For the past 3 years, the church has set its focus on recapturing the lost generation, which according to the demographic is the young generation whose age is below 25 years old. Every month all the pastors and leaders get together to evaluate the church performance and important issues in church-life.



## 21.2 LITERATURE REVIEW

The individual performance is a relevant result measurement so it becomes an important term in working world. In the few last decades, a huge range of researches in management, work health, and psychology of organizational industry have specialized to find predictors and effect from performances (Koopmans et. al., 2013).

### **Performance**

Performance is an abstract and a latent construct which cannot be measured directly. Performance is a behavior or an act which is relevant with the aim of the organization with the main idea that the performance depicts behaviors more than the result; performances involve behaviors relevant with the aim of the organization and multidimensional performances (Campbell, Ford, Rumsey, & Pulakos, 1990; Koopmans et. al., 2011). Thus, performances can be obtained from the good evaluation from colleagues or from the management (Viswesvaran, Ones, & Schmidt, 1996).

A performance as a multidimensional construct is influenced by two main factors externally or internally. Internally, the performance will be determined by the psychological condition of that particular individual which comes from inner side of a person who can empower and make himself or herself engaged and generate better performances (Owens, Baker, Sumpter, & Cameron, 2015). The positive psychological condition which can be a main stimulus in the performance is life satisfaction. Many researches are still unable to uncover the vivid connection between life satisfaction and performances so it can't be predicted whether work satisfaction causes high performances or vice versa. High performances will cause someone to be satisfied for his or her life (Muindi & Obonyo, 2015). As church which has visions of life saving, life changing and life empowering, CCC needs to have leaders with good performance and satisfy with their life so they can serve their people.

## **Life Satisfaction**

Life satisfaction is a relatively stable construct in which the measurement usually refers to various kinds of things in the individuals themselves, such as, feeling and mood (Ateca, Cortés, & Moro, 2014). The life satisfaction is considered as another form of happiness which is a relative evaluation on individuals' life quality. Life quality can be a depiction of an individual's whole life in which to measure it people need integration or individual evaluation on their experiences and their life. (Hofmann, Luhmann, Fisher, Vohs, & Baumeister, 2014). Even though life satisfaction is an important construct, many researchers suggest to continuously review the connection between life satisfaction and performance (Ateca et. al., 2014; De Neve & Oswald, 2012; Hofmann et. al., 2014).

## **Transformational Leadership**

The improvement of performance will give a positive effect for the organization in which a leader has an important role to direct each individual to achieve the objective of the organization (Almutairi, 2016). Compared to the other leadership style, transformational leadership has a significant role towards performances. The positive correlation has an important role for individuals, teams or even the organization themselves. (Raja & Palanichamy, 2011; Wang, Oh, Courtright, & Colbert, 2011).

Transformational Leadership generates an awareness and a bigger acceptance towards the aim and objective and the mission of the organization and grow the vision, reorientation of training and teamwork construction. The leadership style enables the leaders to become the motor and to provide everything needed to build learning in the organization (García-Morales, Jiménez-Barrionuevo, & Gutiérrez-Gutiérrez, 2012). Transformational leadership is considered to improve the most effective factor in motivating the followers when they interact and feel the benefits as well as be consequent on the running vision. (Grant, 2012).

The importance of performance and the necessity of research reviews on the correlation between performance and life satisfaction as well as the significant correlation of transformational leadership

in generating performances becomes the base to view further the style of the three variables on CCC.

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## Adversity Intelligence of Entrepreneur of Small and Medium Bussiness: Bussiness Paradigm Point of View and Entrepreneurship Attitude

*Andreas FK, Sasmoko, Arnold Tindas,  
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### 22.1 INTRODUCTION

Basically, the majority of work force in Indonesia centralized in Small and Medium Bussiness (UKM) which becomes the cantilever of Indonesia economy strength (Narsa, Widodo, & Kurnianto, 2012; Rudianto & Siregar, 2012; Situmorang, 2015). With the enactment of new trade area which is called Asean Economic Community (AEC) at the beginning of 2016, there is a competition of new work force which previously only in Indonesia but now becomes all Asean countries (Rahmana, 2009; Sri Susilo, 2010).

AEC is a symbol of optimism and concern about the globalization phenomenon as an effort to change South Asia to be the basis of integrated production by erasing intraregional trade obstacles, placing investments as well as creating the across border infrastructure to connect national market (Benny, Yean, & Ramli, 2015; Jones, 2015; Rana & Ardichvili, 2014). The effect of work force competition in Asean has an economic impact; in the context of

small and medium business (UKM) the impact is the competition between UKM in Asean.

## 22.2 LITERATURE REVIEW

The success of UKM can be achieved when all UKM entrepreneurs have Adversity Intelligence. Adversity Intelligence is a level of individual tenacity in facing challenges so it will have a positive impact to the organization (Wijaya, 2007). When someone has high adversity intelligence, he or she can work under pressure and still achieve the aim of the organization (Dasuqkhi, Sirajuddin, Sahri, & Khalid, 2013; Woo & Song, 2015; Zhi-hsien, 2014).

Adversity intelligence is also influenced by the paradigm of all UKM entrepreneurs in developing their business and their attitude in developing their business towards the entrepreneurship itself. Entrepreneurship is a driving force of economic growth movement which is the main factor for creativity and innovation (Audretsch, Kuratko, & Link, 2015; Yari, Toulabi, & Pourashraf, 2013).

## 22.3 MATERIALS AND METHODS

The research method is Neuroresearch (the combination of exploratory and explanatory research) (Fios, Sasmoko, & Gea, 2016; Sasmoko & Ying, 2015). It is called exploratory because the research reviews theories or explores deeper the variables.

### Note:

*Dependent Variable:*

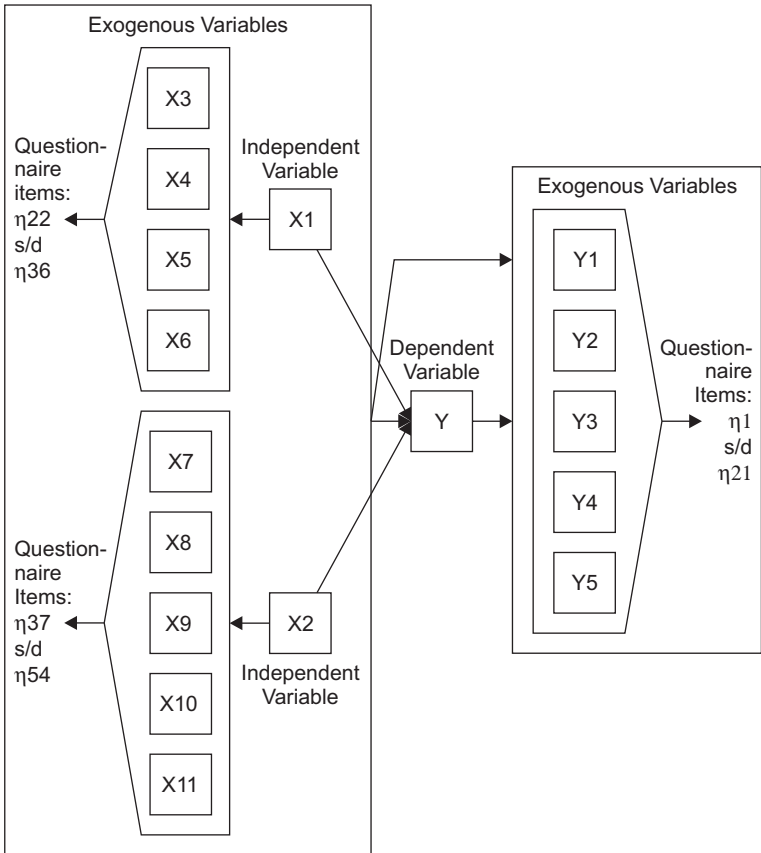
Y : Variable Adversity Intelligence

*Exogenous Variables:*

- Indicator Strength under Pressure ( $Y_1$ )
- Indicator Optimism in Impasse ( $Y_2$ )
- Indicator Synergy in Alienation ( $Y_3$ )
- Indicator Revive in Adversity ( $Y_4$ )
- Indicator Counting on God in all Problems ( $Y_5$ )

*Independent Variable:*

$X_1$  : Bussiness Paradigm



**Figure 22.1: The correlation pattern between Exogenous Variables and Endogenous Variable Based on the development of Construct Theoretical of Variable Adversity Intelligence of Indonesian Entrepreneurship (Y)**

*Exogenous Variables:*

- Indicator Business is a Means of Collecting Treasures to Build Social Life ( $X_3$ )
- Indicator Business materializes pity ( $X_4$ )
- Indicator Business is implementing God Bless ( $X_5$ )
- Indicator Business is maximizing Talents only for God Honor ( $X_6$ )

*Independent Variable:*

$X_2$  : Entrepreneurship Attitude



*Exogenous Variables:*

- Indicator Mettlesome in Making Efforts because God Leads the Way ( $X_8$ )
- Indicator Working Hard ( $X_9$ )
- Indicator Honest ( $X_{10}$ )
- Indicator Each Effort to Self Discipline by Relying on God ( $X_{11}$ )
- Indicator Has a calm heart because Holy Spirit inside the self ( $X_{12}$ )

*Exogenous Variables* consists of:

$(\eta_{11}) s/d (\eta_{21}) =$  Instrument of Variable Y, namely, Items Number 1 to 21

$(\eta_{22}) s/d (\eta_{36}) =$  Instrument of Variable  $X_1$ , namely, Items Number 1 to 15

$(\eta_{37}) s/d (\eta_{54}) =$  Instrument of Variable  $X_1$ , namely, 1 up to 18

The research population is all UKM entrepreneurs in Indonesia. The sample is 700 small and medium bussiness (UKM) entrepreneurs. The sample for research calibration questionnaire trial test is 21 UKM entrepreneurs. The sample collection technique is by using *cluster evidential random sampling*. The establishment of is based on the division of Indonesian West, Central and East areas, namely: Makasar, Maluku (Ambon), Bandung, Denpasar, Medan, Tangerang City, Palembang, Pontianak, Tenggara, Bogor, Manado, Balikpapan, Madiun, Sidoarjo, Surabaya, Kediri, Banyuwangi, Lampung, Sorong, Kupang, Malang, Jakarta, Semarang, Jember, dan Palu. All questionnaires is arranged by Likert-Model scale ranges from 1 to 5. The calibration result of the questionnaire is as follows.

**Table 22.1: The Calibration result of Research Questionnaire**

No	Variables	The number of valid items Based on:*		Reliability Index - $r_{ii}$ (Cronbach Alpha)
		Content Validity	Construct Validity	
1.	Adversity Intelligence (Y)	15	15	0.8979
2.	Bussiness Paradigm ( $X_1$ )	12	12	0.8955
3.	Entrepreneurship Attitude ( $X_2$ )	15	15	0.9137

\*) r-criteria = 0,433

## 22.4 RESULT AND DISCUSSION

**Hypotheses Test 1, 2 and 3:** Explanation of the result of hypohese test 1, 2 and 3: (1) All UKM entrepreneurs in Indonesia tend to have adversity intelligence significantly at  $\alpha < 0.05$ . (2) All UKM entrepreneurs in Indonesia tend to have good understanding on the bussiness paradigm significantly at  $\alpha < 0.05$ . and (3) All UKM entrepreneurs in Indonesia tend to significantly have a good entrepreneurship attitude significantly at  $\alpha < 0.05$ .

**Table 22.2: The hypotheses test result 1, 2 and 3 on the tendency condition of variables from all UKM entrepreneurs in Indonesia**

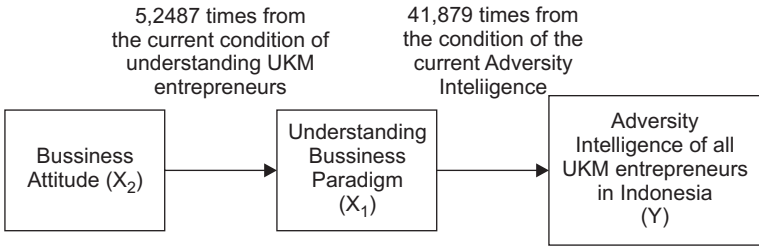
No	Trend	Category	Range	Class Interval	Lower Bound	Upper Bound	Remarks
1.	Adversity Intelligence (Y)	3	43	17	63.6058	64.7542	(1)
2.	Bussiness Paradigm (X <sub>1</sub> )	4	36	10	51.3661	52.2653	(2)
3.	Entrepreneurship Attitude (X <sub>2</sub> )	4	53	14	63.0821	64.2636	(3)

**Hypothese Test 4:** The analysis result of correlation in the sample between Bussiness Paradigm (X<sub>1</sub>) and Adversity Intelligence of UKM entreppreneurs in Indonesia (Y) is  $r_{y1}$  in the amount of 0.930 which has a positive relationship. The varians determination which depicts the closeness correlation between Understanding Bussiness Paradigm (X<sub>1</sub>) towards Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y) is 0.865. It means that the contribution of variable Understanding Bussiness Paradigm (X<sub>1</sub>) towards Adversity Intelligence of UKM entrepreneurs in Indonesia (Y) is 86.5% while the condition in the population is depicted through  $t$  result in the amount of 67.015 which is signifcant at  $< 0,01$ . So, the correlation of Understanding Bussiness Paradigm (X<sub>1</sub>) towards Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y) in the population is also positive. The linear regression equation in the simple of Understanding about Bussiness Paradigm (X<sub>1</sub>) towards Adversity Intelligence of UKM in Indonesia (Y) is depicted through  $\hat{Y} = 2.607 + 1.188X_1$ . It means, if the bussiness paradigm of small and médium bussiness (UKM) entrepreneurs (X<sub>1</sub>) is improved

through 1 program, the adversity intelligence (Y) will increase 1.188 times from the current condition. Based on the result above, it can be concluded that the first hypotheses yang which states "There is a positive and significant influence of Understanding Business Paradigm ( $X_1$ ) towards Adversity Intelligence of UKM entrepreneurs in Indonesia (Y)" in the research is proven.

**Hypotheses Test 5:** The analysis result of correlation in the sample of Business Attitude ( $X_2$ ) and Adversity Intelligence of UKM in Indonesia (Y) namely,  $r_{y2}$  in the amount of 0.915 has a positive correlation. The variance determination which depicts the closeness of correlation between Business Attitude ( $X_2$ ) towards Adversity Intelligence of Small and Medium Business Entrepreneurs in Indonesia (Y) is in the amount of 0.838. It means that the contribution of Business Attitude ( $X_2$ ) towards Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y) is 83.8% while the condition in population is depicted through  $t$  result of 60,045 which is significant at  $\alpha < 0.01$ . So, the correlation between Business Attitude ( $X_2$ ) towards Adversity Intelligence of UKM in Indonesia (Y) in the population is also positive. The equation of linear regression in the sample of Business Attitude ( $X_2$ ) towards Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y) is depicted through  $\hat{Y} = 7.524 + 0,890X_2$ . It means that if Business Attitude of UKM Entrepreneurs in Indonesia ( $X_2$ ) is improved through 2 programs, the Adversity Intelligence (Y) will increase 1.78 times from the current condition. Based on the result of the study, it can be concluded that the first hypotheses which states "There is a positive and significant influence of Business Attitude ( $X_2$ ) towards Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y)" in the study is proven.

**Hypotheses Test 6:** The analysis approach is established by Biner Segmentation which is called Classification and Regression Trees. The Depth in the amount of 2, Parent in the amount of 2, and Child in the amount of 1, with the significance level of  $\alpha < 0.05$ . The result is as follows.



**Figure 22.2: Understanding the Business Paradigm (X<sub>1</sub>) is the most dominant variable in generating Adversity Intelligence of UKM Entrepreneurs in Indonesia (Y)**

The result analysis shows that the better business understanding the UKM entrepreneurs (X<sub>1</sub>) have, the higher the adversity of intelligence (Y) they have up to 41.879 times. On the other hand, if Business attitude (X<sub>2</sub>) is getting better, the better business understanding (X<sub>1</sub>) will improve 5.2487 times from the current.

## 22.5 DISCUSSION

The importance of the new policy especially for the Ministry of Cooperation and Small and Medium Enterprises Of Republic of Indonesia, namely, "The Realization of New Business Paradigm (X<sub>1</sub>) to Increase Indonesian Economic Growth in order to generate Adversity Intelligence of UKM entrepreneurs in Indonesia (Y)". The business paradigm must be treated as a systemic phenomenon in the level of country when considering the nation potency and utilizing scientific findings because the paradigm plays an important role in the growth of modern societies (Acs, Autio, & Szerb, 2014; Edward et. al., 2015). The strategy should be applied is increased development of SMEs from households to general manufacturing throughout Indonesia through the establishment of SME centers in each district/city.

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## The Role of Empowering Leadership Through Organizational Commitment in Delivering Engagement Leadership in Delivering the FGBMFI Regional Leader in Banten

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### 23.1 INTRODUCTION

The term engagement currently becomes a popular term which even becomes the keyword for the managerial of an organization (Barrick, Thurgood, Smith, Courtright, & Texas, 2015). Engagement is defined as a positive condition, job-related fulfillment and mindset or paradigm marked by vigor, dedication and absorption (Schaufeli, Salanova, Gon Alez-ro, & Bakker, 2002). Engagement becomes the key factor in maintaining employees and improve their productivity (Dulagil, 2012).

The condition of engagement is something that is always longed for by each organization and community. The same thing goes to FGBMFI, which is one of religion-based entrepreneur communities in Indonesia. The community holds a huge range of events such as, bussiness sharing, fellowship or other acrivities. As an entrepreneur community, it plays an important role in disseminate a positive condition in each company or bussiness environment. Moreover,

the position of some members of this community is a strategic position in their companies. As leaders, every little thing they do will become a role model so that when the leaders are able to show their engagement as leaders, thus, it will be an example for each employee and build a positive and beneficial culture.

The engagement as an organization construct is highly influenced by organizational motivation practice in which one of the main sources is the leader of the organization itself so that each member can invest the whole physic, cognitive and emotion in the workplace. Leaders can improve the engagement-related effect collectively so that the bond between employees and the company improves and has a positive effect for the company (Barrick et. al., 2015). Leadership engagement can be marked by three things, namely, truth, trust and teamwork in which the condition is able to encourage values and behaviors (Denham, 2006; Frankel, Leonard, & Denham, 2006).

Leadership engagement will be more optimally materialized when the leader is able to apply empowering leadership style. Empowering is defined as a process to increase the feeling of self-efficacy amongst the organization member. Empowering leadership is defined as sharing power with inferiors and improves autonomy level and responsibility (Sims & Lorinkova, 2016). Leaders must build a good rapport with individuals because it can increase employees' satisfaction and help employees to obtain a good performance (Biemann, Kearney, & Marggraf, 2015).

Empowering leadership is required because it can evoke positive results such as, work satisfaction, organizational commitment and performance (Ahearne, et. al., dalam van Dijke, De Cremer, Mayer, & Van Quaquebeke, 2012). The organizational commitment has been conceptualized dan measured by various means and generates three components, namely, *affective commitment*, which reflects someone's emotional involvement to his or her organization especially through positive work experience; *normative commitment*, a commitment which is based on the obliged feeling and responsibilities to the organization that hire him and; *continuance commitment*, a commitment based on someone's perception on the cost and the risk by leaving the organization currently (Allen & Meyer, 1990; Jaros, 2007).



The leadership which emphasizes relation is able to show its interrelatedness with the employees' commitment especially the affective commitment (Brown, 2003). There is a possibility that the followers who are close to their leaders can influence how committed they are towards the organization and how they are empowered (Avolio, Zhu, & Koh, 2004). Based on the understanding of important role of a leader to the organization, it is necessary to view the interrelatedness of empowering leadership in building leadership engagement through organizational commitment.

## 23.2 LITERATURE REVIEW

### Research Method

The research method is Neuro-Research (Fios, Frederikus, Sasmoko & Gea, 2016). Neuro-Research is a research method which combines both exploratory research and quantitative research (explanatory and confirmatory) which is well known as mix-methods (Hanson & Grimmer, 2007). In Neuro-Research, the qualitative study is called exploratory research (Davies, 2006) that is by reviewing theoretically the variable of organizational commitment ( $Y$ ), variable of empowering leadership ( $X_1$ ), and variable of leadership engagement ( $X_2$ ). The result of exploratory research is to find the theoretical construct that is the concluding definition of each research variable, namely,  $Y$ ,  $X_1$  dan  $X_2$ ) which is adjusted already with the population condition consisting also dimension and indicator from each research variable. Based on the exploratory research, all research instruments are developed by Likert-scale questionnaire with a range of 1 until 5. The Instrument calibration is conducted by content validity by related experts (Haynes, Richard, & Kubany, 1995) and construct validity by using varimax iteration with Principle Component Axis (Abdi & Williams, 2010) with eigen value minimum 0.6000 (Sasmoko; Ying Yi, 2015). While the result of Index Reliability calculation of all research instruments is by using Cronbach Alpha ( $r_{ii}$ ). As the result, each Reliability Index Instrument is valid for variable organizational commitment ( $Y$ ) in the amount of 0.781, variable empowering leadership ( $X_1$ ) in the amount of 0.767, and variable leadership engagement ( $X_2$ ) in the amount of 0.801. Based on the result of the valid instruments,

quantitative research (explanatory) is conducted to 30 samples in convenience sampling way.

### 23.3 RESULT AND DISCUSSION

**Hypotheses Test 1:** before determining hypotheses 1, researchers set the category Leadership Engagement for FGBMFI Banten is divided into 3 (three) categories, namely: (a) workaholic, (b) sometimes engaged and (c) engaged. Hypotheses test 1 is conducted by confidence interval at significance level of 5% and generates lower and upper bound between 62.7508 up to 67.0492. So, leaders of FGBMFI Banten tend to sometimes engaged significantly at  $\alpha < 0.05$ .

**Hypotheses test 2:** before determining hypothesis test 2, the researchers set the category Empowering Leadership condition of FGBMFI Banten is divided into 3 (three) categories namely: (a) the leadership of FGBMFI Banten doesn't empower, b) the leadership of FGBMFI Banten sometimes empower and (c) the leadership of FGBMFI Bnaten empowers. Hypotheses test 2 is conducted by confidence interval at the significance level 5% and generates lower and upper bound between 58.5084 up to 62.1583. So, all leaders of FGBMFI Banten tends to have their leadership sometimes empowering significantly at  $\alpha < 0.05$ .

**Hypotheses Test 3:** before determining hypotheses test 3, the researches set the category Organizational Commitment condition of FGBMFI Banten is divided into 3 (three) categories, namely: (a) the leadership of FGBMFI Banten doesn't have any commitment, (b) the leadership of FGBMFI Banten sometimes has a commitment, and (c) the leadership of FGBMFI Banten has a commitment. Hypotheses test 3 is conducted by confidence interval at the significance level 5% and generates lower and upper bound between 26.1676 up to 29.2990. So, all the leaders of FGBMFI Banten has a condition of sometimes has a commitment at significance level  $\alpha < 0.05$ .

**Hypotheses Test 4:** there is a positive and significant influence of Empowering Leadership ( $X_1$ ) and Organizational Commitmen ( $X_2$ ) simultaneously towards the Leadership Engagement of all leaders

of FGBMFI Banten (Y). The sample analysis result of correlation between Empowering Leadership ( $X_1$ ) as well as Organizational Commitment ( $X_2$ ) simultaneously and Leadership Engagement of all leaders of FGBMFI Banten (Y) is  $R_{y12}$  in the amount of 0.545 and has a positive correlation. The variance determination which depicts the strong correlation between Empowering Leadership ( $X_1$ ) as well as Organizational Commitment ( $X_2$ ) simultaneously and Leadership Engagement of all leaders of FGBMFI Banten (Y) is 0.245. It means that Empowering Leadership ( $X_1$ ) as well as Organizational Commitment ( $X_2$ ) altogether and Leadership Engagement of all leaders of FGBMFI Banten (Y) is 24.5%. So, of all leaders of FGBMFI Banten is the strongest determining variable of Leadership Engagement in FGBMFI Banten significantly at  $\alpha < 0.05$ .

### 23.4 SUMMARY

First, all leaders of FGBMFI Banten tend to have a condition of sometimes engaged significantly at  $\alpha < 0.05$ . Second, all leaders of FGBMFI Banten tend to have a leadership condition of sometimes empowering significantly at  $\alpha < 0.05$ . Third, all leaders of FGBMFI Banten has a condition of sometimes have a commitment significantly at  $\alpha < 0.05$ . Fourth, Organizational Commitment ( $X_2$ ) of all leaders of FGBMFI Banten is the strongest determining variable to generate Leadership Engagement in FGBMFI Banten significantly at  $\alpha < 0.05$ .

### 23.5 DISCUSSION

Leadership engagement is capable of encouraging positive organizational behavior because of trust, truth and team work (Barrick et. al., 2015; Denham, 2006; Frankel et. al., 2006) so efforts are required to materialize the condition. In this study, variable organizational commitment becomes the most determining factor in creating the condition of leadership engagement. The structural empowering has a positive effect in working life. It also has a negative effect that is emotional fatigue which affects to the employees' commitment (Cho, Laschinger, & Wong, 2006). The organizational commitment is capable of becoming good mediator

variable for engagement (Albdour & Altarawneh, 2014; Vecina, Chacón, Marzana, & Marta, 2013)

The employees' commitment will take place when they are in the conducive environment in which strong work relationship between leaders and employees will happen due to the support, trust, engagement and commitment (Hughes, Avey, & Norman, 2008). Empowering leadership is a foundation to identify various key processes which are being influenced, behavior manifestation which is generated and as a main mediator for each individual. (Amundsen & Martinsen, 2014). Empowering leadership requires the coordination between leaders and their followers so it generates in appropriate negative effects and increase the positive effect for the organization (Sharma & Kirkman, 2015).

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## **Theoretical Construct of Corruption Quotient (CQ) as the Key Factor of the Good Governance System Implementation in Indonesia**

*Samuel Anindyo Widhoyoko, Sasmoko and Roslee Ahmad*

### **24.1 INTRODUCTION**

In the globalization era, the existence of demands regarding to good governance paradigm in the context of national issues is inevitable. As a part of the system, good governance values embrace all aspects including accountability, transparency, fairness and, equality which enhance the democracy (Gilbert & Allen, 2014). Good governance” can be defined as a successful implementation of economic, politic, and social system in the society which results to the clean and responsive state, vibrant civil society, and responsible business processes

In the perspective of economics, one of the symptoms for a territory having a low-corruption occurrence is the culture of openness which ends to the accountability of an information flow (Van Der Valk & Keenan, 2011). Furthermore, Lambsdorff (2003) explains the negative effect of corruption in the context of macroeconomics performance of a country. He concludes that

corruption will decrease both the society productivity in every aspects in which there is an urgent need to prevent corruption not only by creating a good internal and external control, but also through the well corruption awareness within the society (Lambsdorff, 2003).

Corruption is a violation of the law, because the offender has abused his capacity, to the detriment of the state and the interests of the people. Because of this law contravention, National development is becoming less effective due to the inefficiency of bureaucracy hence resulting in the failure of a country to welfare its society. Therefore, various attempts have been made by the state to combat the corruption through various ways, including through surveillance methods. This fact shows that the system has failing to reduce the corruption. To provide the solution, this research focuses on constructing and structuring the concept of corruption quotient as the success factor in good governance system in Indonesia.

## **24.2 LITERATURE REVIEW**

The discussion is organized through theoretical studies using descriptive analytical method through Neuro-Research elaborating both qualitative and quantitative methods. Specifically, this study used qualitative methods (comprehensive-integral) in which, the result is expected to be able to do a sequel to the quantitative approaches. Validation of the research findings is conducted by focusing discussion to the experts in psychology, forensic accounting, law, and education.

### **The Essence of Corruption**

Corruption simply means: "wrongful use of position of trust in any aspects" All fraud, including corruption is always begun with any pressure caused by the needs of funds to fulfil either imposing or basic human needs. However, due to the stronghold of a human that is in his mind, a pressure might not create any law violations if the person concerns about the ethical and moral value. This factor called rationalization meant as the ability of a person to view the logical and legal aspects from an illegal acts (Clinard & Cressey, 1954; Dorminey, Scott Fleming, Kranacher, & Riley, 2012).



The sociological aspect focusses on the ability of internal control system to mitigate the fraud risk. According to Tsay (2010), one of the important aspects of operational control is to ensure that the boards (leader) is a person with qualifications and accountability to ensure the organization is run according to the value of fiduciary duty (Tsay, 2010).

Wolfe & Hermanson (2003) also explains that a key to mitigating fraud is to focus attention on situations offering, in addition to incentive and rationalization, the combination of opportunity and capability may create a bigger problem. Accordingly, if capability could play a role in influencing the other fraud elements, other detection systems should be applied by expanding audit scopes which is costly for a company. Capability occurs through five stages of psychological aspects started with the aspect of control environment i.e. (1) strategic position, (2) intelligent in understanding the system, (3) strong ego and great confidence, (4) persuasive in terms of leadership, (5) effective and well-trained liar, and (6) immune to stress (Wolfe & Hermanson, 2003).

In terms of occupational frauds, corruption is the “head” of two occupational frauds schemes. First, assets misappropriation is usually committed by low to middle level management in a company. It is revealed in many studies that asset misappropriation schemes were usually committed due to the lack of control activities, improper audit trail or, incompetence of assurance service providers (Buckoff & Morris, 2002; Gbegi & Adebisi, 2013). This means that a person who wants to use an organization’s assets must be able to rationalize his acts (Olken, 2009).

On the other hand, the grey area of accounting subject has always been about revenue and expense recognition, assets fair valuation, and related-party transactions. Perols & Lougee (2011) finds that financial statement fraud is more likely to have managed earnings in prior years. Further findings show that these accounting standards violations are committed through the well information and communication flows (one of the internal control elements) between manager and board of directors and, the annual incentive policies made by the board of directors (Perols & Lougee, 2011). This case reveals that perpetrators often use power to recruit others

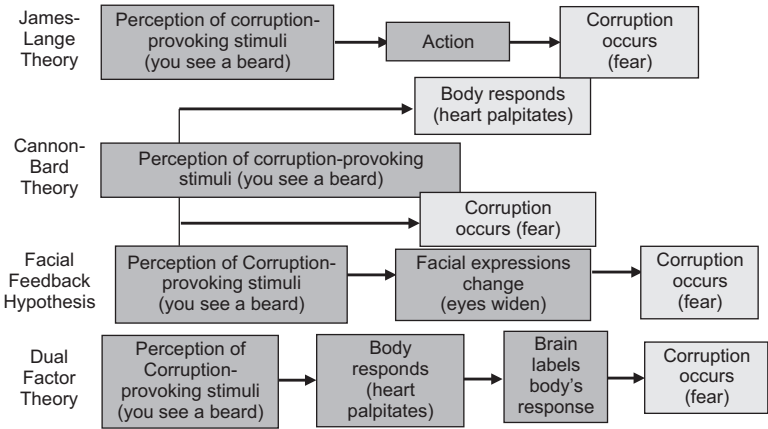
to participate in fraudulent act to influence others to participate in financial statement fraud (Albrecht, Holland, Malague, Dolan, & Tzafrir, 2015).

### **CQ as the Key Factor of the Good Governance in Indonesia**

Initially, Murphy & Dacin (2011) finds that, there are three psychological pathways to fraud nestled within rationalization: (1) lack of awareness, (2) intuition coupled with rationalization, and (3) reasoning. These distinctions are important for fraud prevention because each of these paths is driven by a different psychological mechanism. One of the main factors making the rationalization could affect the human's mind very easily is the first factor, the lack of awareness. This pathway is not created through the low ethical value in the society. It is created by the well-conditioned of a position to have improper self-ambition. This occurrence exist mostly in the area of public officers (Murphy & Dacin, 2011).

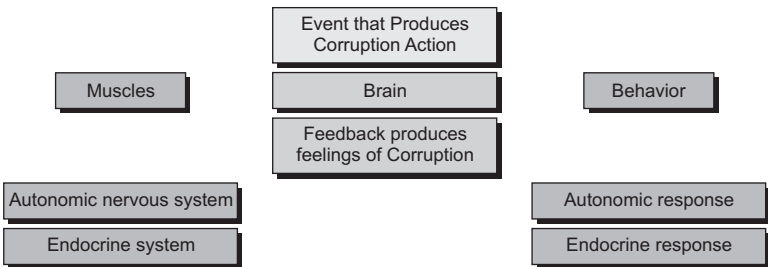
Carlson and Buskist (1997) explain that the emotions portrayed through a person's behaviour refers to how the ending behaviour, the final physical responses, and the feeling of acceptance or rejection of the existing stimulus. The pattern of responses referred to them can be interpreted in the context of corruption as the behaviour associated with the situation i.e. positions held. When someone is driven by the stimulus, then it will motivate him to act which cause the person to express and experience both positive and negative effects. So, the eradication of corruption should be made up to remove experience.

If corruption is implemented through the Huffman's theory, generally it can be argued that corruption refers to feelings or affective reactions to its own interests or "congregation", and each of acts of corruption has at least three basic components: (1) the cognitive component (expectations that determine the shape and intensity of the response to the corruption); (2) physical component, (emergence of the extreme feelings sense of peace), fear of punishment or anger (if trapped and sacrificed), the heart rate increases; and (3) behavioural component, (expression of emotions through facial expression, posture and gestures, and tone of voice.)



**Figure 24.1: The Implementation of Huffman’s Theory to the Four Behaviours of Corruption**

Basically, the emergence of corruption starts from the brain reception to sensory feedback from muscles and organs regarding to the opportunities. Next, they intentionally manipulate the opportunities that generate responses and misbehaviour which results in the feedback that shapes the feelings include happy, peace, fear, and angry.



**Figure 24.2: Diagram of Response, The Behaviour and The Impact of Corruption Developed Using James-Lange Theory**

Cannon-Bard theory states that feeling is created through the independent stimulation from cerebral cortex and the autonomous nervous system. Therefore, the perception of corruption stimulates the thalamus to send the stimuli to human body in general and cerebral cortex. Stimulation to the cortex produces experiences or practices of corruption. James-Lange theory basically

emphasizes that the response of the body is not the major factors in corruption.

The “The Facial Feedback” theory emphasizes the motion of the face as the result of corruption. Hence, that facial expressions provide information about what feeling is being perceived by a person. Accordingly, he changes in human’s face is not only related with the human’s behaviour, but also to the causes and reasons underlying the human’s behaviour.

Two factor theory states that corruption depends on two factors which are the encouragement of physical and cognitive naming to the physical drives. The perpetrators realize what is happening around them in the form of opportunities, while the body respond to them, and consider that acts as a reasonable act instead of crime. Furthermore, this theory emphasizes that humans tend to view at the external cue rather than internal cue to distinguish whether it is misbehaviour. When the gesture cannot be synchronised, then the corruption shall appear immediately.

As it has been stated that the determinant of emotions such as pride (self-esteem) is derived from the attribution of success or the overwhelmed sense of belonging to certain position of trust, the anger that comes from the attribution of failure regarding to the social interactions, gratitude that occurs from the attribution of success of help others, the guilt comes from the attribution of failure, and the compassion that comes from other people’s problems attribution factors outside its control, and the hopelessness that comes from failure attribution continuous (fixed). Based on the explanation mentioned, it can be concluded that self-awareness and self-control will successfully be combined with three components i.e. cognitive, physical, and behaviours. This is called the ability to make sense of corruption (CQ).

Furthermore, it can be explained that both human’s sides of thinking interact one each other in forming the human’s mental i.e. (1) rational action of thinking (human’s consciousness which is comprehensively encompassing thought, contemplation, and reflection) and (2) emotional action of thinking is the location of human’s sub-consciousness. From the characteristics mentioned CQ will emerge in a form of a knowledgeable theory which can

be taught to humans as well as the form of index named Indonesia Corruption Index.

**Table 1: CQ Treated in Accordance to “The Ten Habits of High People” Hein’s Theory**

1	Label their feelings, rather than labelling people or situations	“I feel impatient” vs “This is ridiculous” “I feel hurt and bitter” vs “You are an insensitive jerk” “I feel afraid” vs “You are driving like a idiot”
2	Distinguish between thoughts and feelings	Thoughts: I feel like ... & I feel as if ... & I feel that Feelings: I feel: (feeling word)
3	Take responsibility for their feelings	“I feel jealous” vs “You are making me jealous”
4	Use their feelings to help them make decisions	“How will I feel if I do this?” “How will I feel if I don’t”
5	Show respect for other people’s feelings	They ask “How will you feel if I do this?” “How will you feel if I don’t”
6	Feel energized, not angry	They use what others call “anger” to help them feel energized to take productive action
7	Validate other people’s feelings	They show empathy, understanding, and acceptance of other people’s feelings
8	Practice getting a positive value from their negative action (Corruption)	They ask themselves: “How do I feel?” and “What would help me feel better?” They ask others “How do you feel?” and “What would help you feel better?”
9	Don’t advise, command, control, criticize, judge or lecture to others	They realize it doesn’t feel good to be on the receiving end of such behaviour, so they avoid it
10	Avoid people who invalidate them, or don’t respect their feelings	As much as possible, they choose to associate only with other people with high performance

**CQ’s Implication in Indonesia**

Various policies and eradication bodies exist in Indonesia as well as the corruption acts remain growing. Indonesia is still one of the most corrupted countries in the world. Based on these realities, there must be a policy that are fumble or the performance of the public officers which are below the standards. The main problem is

the government's tendencies to eradicate corruption are triggered by the statutes in exercising duties and functions to eradicate the acts not to prevent and deter the acts.

Hence, it needs a policy which eradicate the acts precisely so that the number of same corruption acts shall decrease as well as the society's perception regarding to the anti-corruption commission that is weakened due to the rumours of collaborations between independent body (anti-corruption and investigation bodies) with dependent body (political party). This conspiracy risks will cause the bias in recruitment processes and the failure of the governmental programs that produces an incompetent human resource in corruption eradication.

Based on these circumstances, CQ is on big breakthrough in the nowadays confusions regarding to the corruption. It does not only predict the occurrence of the corruptions, but also prevent corruption from the he subconscious of human. An analysis has shown that creating a good environment and culture (Albrecht et. al., 2015; Dowling, 2006) and, embedding a moral and ethical value profoundly along with the development of the right portions of local government surveillances as the presence national assurance service will stop the corruption efficiently, (Olken, 2009; Werner R. Murhadi, 2009) will result in a good control environment of a corporate governance system that is free of corruption.

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## **IT Strategic Planning Study in Improving Organizational Performance of Higher Education in Indonesia**

*Yasib Abdi Polela, Haryanto, Yoas Arnest Sutopo, Winardi,  
Aqeel Khan, Sasmoko, Yasinta Indrianti and Theresia Winata*

### **25.1 INTRODUCTION**

IT becomes a key to the success of an organization because it can directly affect the working mechanism within the organization. IT has become an integral part of the business strategy of the organization (Drnevich & Croson, 2013; Schwalbe, 2015). The implementation of IT has transformed business practices and plays an important role in business strategy. They help organizations to adapt to the business environment (Ismail, Ali, When, & Hsbollah, 2007). It has become a necessity to align organizational goals with the direction of IT development. Alignment between business and IT defined in IT strategic planning (Kern & Willcocks, 2000; Ullah & Lai, 2013). IT strategic planning shows that the business strategy is the main target of their IT planning that reflects the full integration between IT and the organization (Baporikar, 2013).

Similarly, for a college, the alignment between education strategy with IT strategy, has several benefits, which can be used to create



and improve efficiency, reduce costs, improve relationships with users and generate practical solutions to the educational process. (Setiawan, Technology, Ti, Technology & It, 2009). IT becomes a basic requirement for modern learning sector, by adopting and implementing IT in each learning activity (Ismail et. al., 2007; McRobbie & Palmer, 2001; Nguyen & Frazee, 2009).

The Indonesian government has set a standard for higher education, the National Standards for Higher Education (SNPT), as minimum criteria's that must be achieved by a college (Regulation of the Minister of Research Technology and Higher Education Affairs, 2015). SNPT is a measure of college performance, as a multidimensional concept that is closely related to the mission, objectives or goals, which will affect to what and how something is measured and interpreted. The higher education system is characterized by the complexity of the task, so that the performance indicators should be in line with the goal of college (Enders, de Boer, & Weyer, 2013; Koopmans et. al., 2013).

SNPT aims to ensure the achievement of objectives and quality of higher education, consisting of: (1) standard of education, includes: competence of graduates, learning content, learning process, learning assessment, faculty and staff, facilities and infrastructure of learning, learning management, and financing of learning; (2) standard of research, contains: research outcome, research content, research processes, research assessment, researchers, research facilities, research funding; and (3) Standard of community service, includes: community service outcome, content of community service, process of community service, assessment of community service, implementers of community service, facilities and infrastructure of community services, management community service, and funding and financing of community service.

IT as a support system has a very important role in the implementation of SNPT. To meet the criteria set out in SNPT, IT support should also refer to SNPT. SNPT complexity, which overall is an integral part, must be able to be handled properly by the college. Therefore, IT support should be designed in such a way so it properly supports all activities of higher education. Mapping IT support to educational activities, which is a realization of the vision

and mission of higher education embodied in an IT strategic plan, will give direction on how IT support should implemented. The planning should be able to help the college in identifying various targets as stated in college's strategic plan, and making a positive impact on the performance and the competitive advantage of the college itself (Rush, 2013).

## 25.2 LITERATURE REVIEW

Some components and stages in determining the IT strategy planning must be done carefully, considering the implementation of IT itself has one goal to increase the performance of the institution. Rush (2013) describes the IT strategic planning framework in the following chart:

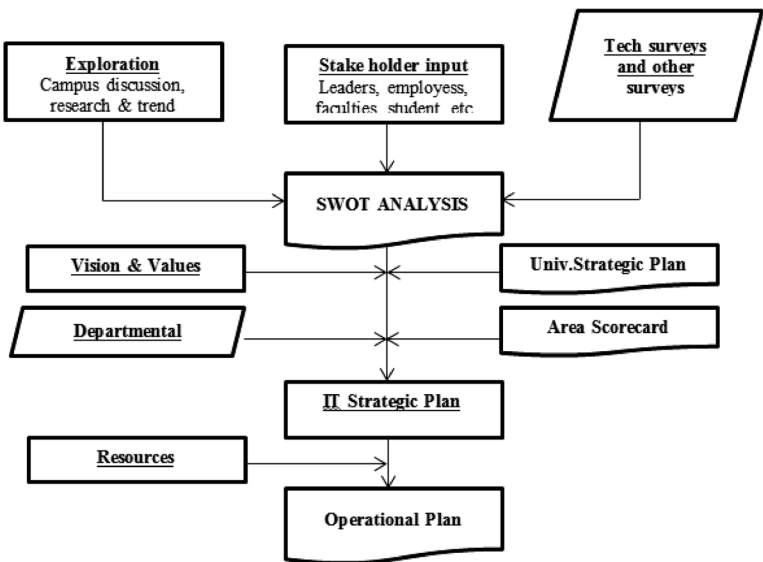


Figure 25.1: Development Framework for the Technology Plan (Rush, 2013)

There are several stages in structuring a strategy. Yodek Model (in Kahveci et. al., 2012) shows the integrated relation between strategic planning process and execution process which is crucial to successfully implements IT strategic planning itself. Strategic

Planning process has a few components, namely: (1) Pre-planning activities; Institutional norms, including mission, vision and values; (2) Assessment, including self-assessment, SWOT analysis and environmental assessment; (3) Strategy and goal; and (4) Planning, including indicators and targets, activities and projects, and sources planning and budgeting.

Strategic plan is formed after the planning process and is proceeded by the execution of the strategic plan, which consists of several components: (1) Implementation plan, (2) Execution and (3) Periodic Review and improvement, which stages consists of review and measures, analyzing and improvement.

In Indonesia, a college in Jakarta, make modifications to the IT strategy to be implemented in the college itself (Silanegara, Bayu Adhi Tama, Diyat Nurhidayat, 2011). IT strategy process methods used are. The IT strategy process consisted of: Stage I includes (a) Analyzing Internal Business Environment with an input from the university's Strategic Plan document and an output Critical Success Factors; (b) IS/IT Internal Environment Analysis with an input of excursion study result and a current portfolio application as an output; (c) External Business Environment Analysis with an input of competitive work situation and an output of Five Forces Model; and d). External IS/IT Environment Analysis with an input of *e*-journal, *e*-book, website and an output of technology trend.

Stage II is processing strategy with Critical Success Factor, Current Application Portfolio, Five Forces Model and Technology trend. Stage III consists of (a) IS Strategy with an output of the demand of IS; (b) IS/IT Management Strategy with an output berupa kebutuhan manajemen and (c) Strategy IT with output of a demand IT. Last stages is the result of the overall process, i.e Future Application Portfolio.

Implementation of IT strategic plan plays an important role for universities to achieve the performance standards set by the government, involving the resource as one of the main components, so that the strategic plan is in the running optimally. Human resources at universities such as faculty and staff, is the key that will ensure the success of the IT strategic plan. One psychological factor that plays an important role on human that drive high performance

is wellbeing. Employee wellbeing refers to the overall employee experience related to the job and the organization (Kooij et. al., 2013). Wellbeing is relevant to the performance of an organization's internal environment quality (Lamb, Kwok, & Walton, 2014) so that the wellbeing factor is very important as a material consideration in determining IT strategic planning.

### **25.3 MATERIALS AND METHODS**

The method used in this study is neuroresearch. Neuroresearch is a method which has three main processes by conducting exploratory research, research Explanatory and confirmatory studies (Fios, Sasmoko, & Gea, 2016; Sasmoko; Ying, 2015). This study uses the type of exploratory that conducts literature studies that related to the strategic plan and IT strategic plan, adapted to the context of Indonesia especially in area of higher education, and produce a theoretical construct and propose an IT strategic plan framework.

### **25.4 RESULTS**

In this study, IT strategic plan for higher education in Indonesia is designed with consideration of several things including the National Standards for Higher Education (SNPT), strategic models of some of the literature and wellbeing factor for human resources involved in it.

SNPT shall be implemented by each university in Indonesia because SNPT is a unity of quality assurance. SNPT achievement can be used as a measure of college success, in carrying out the whole process of quality education (Regulation of the Minister of Research Technology and Higher Education Affairs, 2015). IT strategic plan is a very important support system, so that the whole of this standard can be implemented properly, in accordance with performance standard set by government regulations. SNPT consists of three major elements such as: standard of education, research standards, and standards of community service. Aside from the national standards, the development of IT strategic planning needs to be aligned with the strategic planning of higher

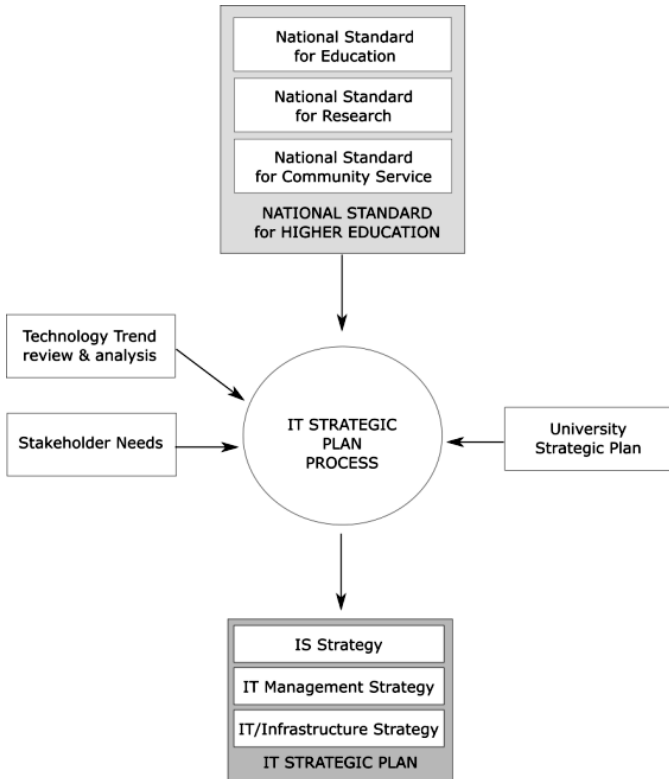
education institutions. This is necessary so that there is no overlap expectations and goal to be achieved.

Some studies have produced a strategic plan and framework model of the IT strategic plan (Kahveci et. al., 2012; Rush, 2013). Some models and frameworks, it is used as a basic premise, in preparing the IT strategic plan in accordance with the context of higher education in Indonesia. However, in preparing the IT strategic plan is necessary to consider the human resources involved in it. Application of IT strategic plan, should be able to accommodate the ease and convenience of the user so that the user can feel wellbeing in their work. Employee wellbeing is important to determine the success of the organization. IT strategic plan will help ease employees in the work so that employees feel comfortable. This positive climate will ultimately affect the performance of the organization (Renee Baptiste, 2008).

Strategic planning college, consider a variety of factors both internally which includes the vision, mission, SWOT analysis, as well as external factors which stakeholders such as lecturers, foundations, students, etc. involved in the college. To formulate a IT strategic plan, a college also need to look at technological developments of today and the future to be relevant to current conditions. Of the overall processes, IT strategic planning can be formulated by looking at three factors, among others: information system planning, management planning technology, and information technology infrastructure planning. In the end, the entire information technology strategic planning will be formulated in a blueprint that can be a guide for college to implement all existing planning.

## **25.5 DISCUSSION**

This study aims to create an IT strategic planning framework for universities in Indonesia so it can help the college achieve performance as determined by the government of Indonesia. Regarding of the various models and strategic framework of previous research, the process of preparation of the IT strategic plan should also consider the psychological factor of human resources involved in it, namely wellbeing.



**Figure 25.2: IT strategic plan framework for college in Indonesia**

This study resulted in a framework of IT strategic plan that involves several components, such as SNPT as performance benchmarks of higher education institution in Indonesia, the trend of today's technology, the needs of stakeholders, strategic plan of the college which includes the vision, mission and values so as to produce the IS strategy, IT management strategy and IT/infrastructure strategy as a single IT strategic planning.

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## The Influence of Javanese-Japanese Musical Idiom in the Arrangement of *Keroncong* Song *Bengawan Solo* Towards the Audience's Subjective Wellbeing

*Hengki Bonifacius Tompo, Yasinta Indrianti, Sasmoko,  
Maria Josephine Mantik and Heberitus Sunubudihardjo*

### 26.1 INTRODUCTION

Japanese culture continues to develop in accordance with the internal or external changes as an effect of globalization (Bender, 2007). It also happens with Indonesia. Indonesian Republic is the fourth populated country and develops faster amongs other developing countries and in 1988, Indonesia enters the new phase of international development (Goolsby, 1994). The condition shows that Indonesia and Japan experience progresses in different fields and scopes. The advancement of the two nations is inseparable from the cultural products which generate progress and culture in each nation. It happens especially when the change of paradigm of having a nation undergo transformation due to the more superficial world, namely, the occurrence of interdependency between nations and countries in all aspects. One of the effects of interdependencies is the opening of opportunities of cultural encounters in order to harmonize the relationship of the two nations. The review of

crossculture is important because of the continued long term benefits which can connect the two culture and as a means of growth to improve the understanding (McIntosh & Zahra, 2007). Indonesian history is inseparable from the Japanese history so it is necessary to have a process of encountering experimentally the two cultures as a constructive step to build cultural harmonization of the two nations.

The encounter of crossculture can give a good opportunity for personal growth in self understanding and the world so that the encounter becomes important for the development of a nation. In the tradition of humanistic psychology, the encounter of crossculture is potential as an encounter of creativity where the capacity of individual creativity can develop through adjustment and meaning from the encounter (Montuori & Fahim, 2004). The encounter or crosscultural dialog is a part of culture nature which is dynamic and continues to develop across ages. It is an a basic element for human beings since their making and to evaluate it qualitatively, it is unnecessary to make its quantity aspect as an issue personally or geographically. The encounter of the two cultureis not only evaluated from the aspect of the rate of cultural civilization development of each nation and no one can be the referee in the process. The most important is to continuously learning as well as has critical attitude towards sociocultural acts (Mack, 2001).

Music is one of cultural products existing in each nation of the world as a result of human activities (Feld, Herndon, & McLeod, 1980). Each nation has its own features and musical idioms. The existing of musical idioms will be more dynamic and developed if they can adapt or construct dialogs with the music from other nations. Two forms of cultural marriages which have high values are mixed and hybrid, which the two marriages can be done through music pluralism living side by side, namely, mixing the existing music to become a new syntheses and both live side by side (Nakagawa, 2000). The research focuses on the Influence of Javanese-Japanese musical idioms towards the Subjectivity Wellbeing of the audiences. The problems are: (1) What is the materialization of the score of Bengawan Solo in Javanese-

Japanese musical idioms?, and (2) how much is the influence of Javanese-Japanese musical idioms in the arrangement of keroncong song Bengawan Solo towards the subjectivity wellbeing of audiences?

## 26.2 LITERATURE REVIEW

Culture is a normality statement about the behavior of a group of people who try to live together. The behavior is standardized by the life needs and human main attribute, namely, the quality of willingness to learn from other people (Feld et. al., 1980). It also happens to the society in a nation; the behavior of society will create the culture that characterizes the nation. The crossculture dialog is a common thing in the civilization because only by conducting crossculture dialog that each cultural product will go through dynamics and development as well as not static which only trapped in the concept of tradition (Mack, 2001).

Music as part of the culture is a series of characteristics which combine pitch, duration, timbre, melody, pattern and improvisation (Krumhansp & Jusczykb, 2013). Referring to the Indonesian culture, especially Javanese culture, cultural dialog in music can be traced from the Javanese pentatonic music which much influenced by Chinese musical idioms where pentatonic in the East world, especially in China, namely, *huang-mei-tiau*, which was known since 2700 BC. The score *huang-mei-tiau* is adapted in Javanese to become *slendro*. It dated back in the era of Tang Dynasty, when a Buddhist teacher from China, Hwi Ming, came to Borobudur, teaching Buddhist eulogy with the score of *huang-mei-tiau* to King Syailendra. The word *slendro* comes from the name of the king, Syailendra, which is the name of of the prime dynasty of the first Mataram Kingdom (Co, 2013; Graz, 2015; Muljono, P, Fahmi, & Hastuti, 2014). It is obvious that in the past the nation had successfully done the cultural dialog which creates cultural products which until present time is used in Javanese traditionalmusic (Tambayong, 2015).

Ethnomusicology is created by a long history which involves researches and practices. Ethnomusicology commits to the musical

study in the culture and culture relates to the behavior and musical experience compa or crossculture (Campbell, 2003). Javanese Traditional Music and Japanese music have their own uniqueness in both musical idiom and musical instruments if they are combined in a composition or arrangement. Both have a similarity in terms of tone scale that is pentatonic. The encounter of both Japanese and Javanese musical idioms if it is collaborated well by exploiting the superiority of each musical aspect in rhythms, melody and other elements will create a unique syntheses. The collaboration result of both musical idioms will bring a new breakthrough in the framework of crosscultural dialog between the two nations as well as become the stimuli for other cultural dialogs.

The research method is by Neuro-Research which consists of: (1) a qualitative research is used to find score entity of Bengawan Solo Keroncong in Javanese and Japanese musical idioms, and (2) a quantitative research in form of experimental quasy to find the influence of Javanese-Japanese musical idioms in the arrangement of keroncong song Bengawan Solo towards the subjective well being of audiences (Fios, Sasmoko, & Gea, 2016; Sasmoko & Ying, n.d.). The quasy-experiment is by "Post Test Only Random Design". The implementation of the experiment is done to 2 groups: control group and experiment group. The data collection technique is in form of an evaluation sheet with semantic differential with the scale of 1 up to 7. The scale will explore responses on the recital meaning (performances) Keroncong Bengawan Solo with Javanese-Japanese musical idioms which can create the audiences' mood to be more peaceful. The calibration of the evaluation instruments is done by content validity by Japanese and Indonesian musicians. Construct validity is calculated using Product Moment formula and reliability is calculated by Cronbach Alpha ( $r_{ii}$ ) is 0.784.

### **The Form of Score of Bengawan Solo Song in Javanese and Japanese Musical Idioms**

Various researches related to the culture and music in Indonesia or in Japan have been conducted. A research attempts to review Keroncong music culture as a popular music in Indonesia tinting the struggle of Indonesian independence so its growth and the

development show the identity and personality of Indonesian as a nation. (Al, 2013). A crossculture study also finds that music can create universal ability in detecting emotional quality in which this emotional category is influenced by language and strengthen the culture diversity (Argstatter, 2015). The research which is conducted in Palestine and Israel reviews a central issue in which the abstract conceptualization of identity and culture from the two nations which combine psychological perspective is capable of generating new activities as a result of the encounter of the two groups (intergroup encounter). The existence of a sovereign nation is able to unite epoch through the concept universalization which involve the culture and identity from certain nation. (Bekerman, 2007).

In 1971 a researcher predicted that ethnomusicology has a power to create a revolution in music. The prediction currently has been materialized where the two fields and the dynamic history is able to combine to develop the new knowledge. (Campbell, 2003). Indonesian society currently uses multilingual so that it becomes an example of multicultural implementation. As a nation with high complexity, the threat to Indonesian collective culture comes from external factor instead of internal (Goolsby, 1994). Thus, there has to be a management so that various aspects which become threats are likely to become challenges which can develop high Indonesian cultural savor, namely, and music.

The objective of the research is to interpret the friendship of Indonesia-Japan through the culture of Javanese-Japanese by encountering Japanese and Javanese musical idioms in order to create a new masterpiece as a materialization of both kinds of music. The cultural encounter is capable of erasing the less appropriate relationship between the two nations. Musically, the encounter of both Javanese and Japanese musical idioms can be conducted by utilizing both elements which cover rhythms, melody, harmony and the peculiarity of each instrument. The utilization of both musical elements can be the base of arrangement or composition making which create a new music feature as the result of hybrids from the two cultural products. The end result of the research is the creation of a new kinds of music which is the result of arrangement

from the two nations which materializes in form of recital which generates responses from the society who are proud of the culture collaboration so it creates the togetherness from the two harmonious nations. The following is the example of the trailer.

**Bengawan Solo**

Composed by Gesang  
Arr. by Hangki B. Tompo

**Moderato**

The musical score is arranged in systems. The first system (measures 1-4) features the Shamisen (melody) and Sham (accompaniment). The second system (measures 5-8) introduces the Ko (gong) and Sham. The third system (measures 9-13) includes Ken (kayagum), Saron, and Bon (bonang). The fourth system (measures 14-16) continues with Ken, Saron, and Bon. The fifth system (measures 17-18) features Ken, Saron, and Bon. The sixth system (measures 19-20) introduces the Shak (sawing) and Ko. The score concludes with an 'etc.' marking and a right-pointing arrow.

Figure 26.1: Musical Score Trailer

The experiment quasi result of the influence of Javanese-Japanese musical idioms in the arrangement of Keroncong song Bengawan Solo towards Subjective Well-being of audiences.

Analysis requirement test is in form of homogeneity test conducted by Levene Test which generates  $F$  in the amount of 1.603 which is non-signifikan at  $\alpha > 0.05$ . So, the kinds of responses which makes the audiences' well being from the group of bengawan solo song in the real version of Indonesian musical idiom with the response which makes audiences' well being from the group of bengawan solo song in the version of Javanese-Japanese musical idioms are homogen. Based on the homogeneity test, it generates  $t$ -student in the amount of 4.322 which is very significant at  $\alpha < 0.01$ . It means that bengawan solo in the version of Javanese-Japanese musical idioms is responded well by the audiences (wellbeing), so that it makes the audiences' feel wellbeing with the new arrangement of Bengawan Solo (Javanese-Japanese musical idiom version).

### 26.3 DISCUSSION

The Javanese-Japanese musical idiom of Keroncong Bengawan Solo which materialized in the new arrangement is valid by content validity. The arrangement is responded by the audiences so that it makes the audiences' feel well being with the new arrangement significantly at  $\alpha < 0.01$ . So, music has strong linkages with an individual's well being. The music practice contributes to the development of individuals and successfully creates positive feeling (Boyce-Tillman, 2014; Croom, 2015).

The friendship between nations, especially Indonesia which is represented by Javanese ethnic with Japanese can be built through the encounter of two cultural products, music. As a proof, after listening to and enjoying the music, all audiences from Japan and Indonesia feel the well being. It requires a further research especially by building a political diplomatic model through musical dialogs between nations.

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# **The Role of the Quality of Work Life, Person Organization Fit and Transformational Leadership Towards the Employees' Job Performance (A Study in NRB Organization)**

*Yasinta Indrianti and Rostiana*

## **27.1 INTRODUCTION**

Performance is the key factor of the existence of an organization, in which the improvement of employees' achievement positively affects the organization performance (Almutairi, 2016). Nevertheless, there are many organizations, which have difficulties to manage the employees' performance (Roberts & Koy, 2000).

The study attempts to view the performance problems experienced by NRB organization, a non-profit organization. The primary study is conducted to explore existing problems by conducting Focus Group Discussion to find the causative factor for the low performance. The discussion generates some basic problems, namely: (1) the employees' work ethics is only limited to doing the job they can; (2) job description is vague; (3) the leadership pattern is not supportive for the employees' self development; (4) the unsupportive system that make the employees don't put maximum effort in working.

## 27.2 LITERATURE REVIEW

Performance is a difficult term to explain because employees do many tasks that don't exist in their job description and the success of the organizations depends on how they attract, recruit, motivate and maintain their employees who have high performances (Bakker dan Leiter, 2010; Muindi & Obonyo, 2015). The understanding of performance has undergone changes for the last 40 years (Griffin, Neal dan Parker, 2007). Performances as multidimensional construct is defined as the entirety of important behaviors and activities in a population to fulfill the aim of the organization (Campbell, Ford, Rumsey, Pulakos, Borman, Felker, De Vera dan Riegelhaupt, 1990; Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet & van der Beek, 2011; Rotundo, 2000).

The employees with high performances are the employees who can give a high quality of job result and have quality of work life. Quality of work life is a concept which describes response process or organization reaction towards the employees' need by developing the mechanism which enable the employees to take a full part in decision making of programs in work environment (Robbins in Kheradmand E, 2010). The quality of work life results in better company's performance because it will contribute to the better life which at the same time improve the income and asset growth. (Lau & May, 1998; Yahya Al-Qutop & Harrim, 2011; Arifin, 2012; Pozo, Tachizawa, Roselaine dan Pozo, 201; Rubel & Kee, 2014).

The quality of work life is described as beneficial work environment, supporting and promoting satisfaction by providing rewards, job security, opportunities and career development for employees. (Walton, 1980; Nanjundeswaraswamy & Swamy, 2013). Other factors such as, gender, age, marriage status, nationality, control over position and monthly payment also affect the quality of work life (Almalki, FitzGerald & Clark, 2012).

Employees' performance also relates with the person organization fit. Person organization fit is a compatibility between the individual attributes and environment which can improve the positive emotion meningkatkan emosi positif, individual attitude and behavior. Person organization fit takes place when one of the parties provides

the needs of other parties or both parties complement each other because of some characteristics such as values. (Gutierrez, Candela dan Carver 2012; Memon, Salleh & Baharom, 2015).

The rapid change of the new era organizations is more suitable when they implement adaptive and flexible leadership such as, transformational leadership. Transformational leadership affect best efforts from employees in doing their job, especially when the individuals fit with the organizations (Turner & Muller, 2005; Huang, Cheng dan Chou, 2005; Bennis, 2001; Garcia-Morales, Jimenez-Barrionuevo & Gutierrez-Gutierrez, 2012; Grant, 2012).

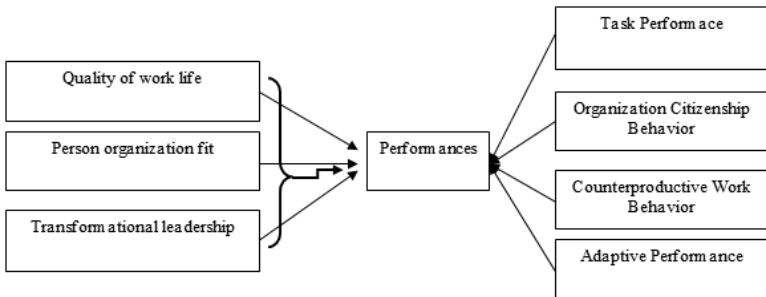


Figure 27.1: Model of Research

### 27.3 MATERIALS AND METHODS

The sampling method is by using convenience sampling. The participants in the study is all employees who work in NRB organization for 0-20 years with the position from staffs and directors as many as 126 people who come from some departments. The design of the study being used is a correlational study by using multiple regression multivariate technique.

The measuring instrument for the performance is developed by referring to performance measurement instrument developed by Koopmans, Bernaards, Hildebrandt, Schaufeli, de Vet, & van der Beek, (2011); Koopmans, Bernaards, Hildebrandt, Schaufeli, & de Vet, (2013) and Yusoff, Ali & Khan (2014). The measurement instrument of the quality of work life being used in this research is the instrument developed by Rostiana, Zamralita, & Suyasa (2014) which refers to the Walton concept (1980) about the quality of

working life which comprises of 10 (ten) dimension. The instrument used to view the individual compatibility referring to perceived fit scale developed by Cable and DeRue (2002) used by Fuady (2015). The instrument consists of 3 dimensions. The instrument to measure the transformational leadership refers to Multifactor Leadership Questionnaire Form 5X developed by Bass & Avolio (1995) and has been used by Indripramesty (2016).

## 27.4 RESULT AND DISCUSSION

The data normality test is conducted by using one sample Kolmogorov Smirnov on the residue of the four research variables. The normality test shows  $Z = 0.909$  and  $p = 0.380 > 0.05$ , so the research data is distributed normally.

**Table 27.1: Result of Descriptive Statistical Analysis**

<i>Variable/Dimension</i>	<i>Midpoint</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Minimum</i>	<i>Maximum</i>
Performance	3	3.14	0.840	1	5
Task Performance	3	3.21	0.96	1	5
Organizational Citizenship Behaviour	3	3.22	1.003	1	5
Counterproductive Work Behaviour	3	2.26	0.481	1	5
Adaptive Performance	3	3.36	1.136	1	5
Quality of work life	3	3.42	0.543	1	5
Job Characteristic	3	3.46	0.597	1	5
Co Worker	3	3.72	0.596	1	5
Pay Benefit	3	2.98	0.817	1	5
Personal Development	3	3.49	0.793	1	5
Work Balance	3	3.36	0.68	1	5
Promotion	3	2.99	0.878	1	5
Work Condition	3	3.57	0.690	1	5
Supervisory	3	3.54	0.696	1	5
Work Culture	3	3.58	0.609	1	5
Social Relevan of Employer	3	3.36	0.696	1	5

<i>Variable/Dimension</i>	<i>Midpoint</i>	<i>Mean</i>	<i>Std Dev</i>	<i>Minimum</i>	<i>Maximum</i>
Person Organization Fit	3	3.01	0.873	1	5
Supplementary Fit	3	2.96	0.973	1	5
Need Supply Fit	3	3.07	0.846	1	5
Demand Abilities Fit	3	3.01	1.151	1	5
Transformational Leadership	3	3.05	0.921	1	5
Intellectual Stimulation	3	3.02	0.914	1	5
Inspirational Motivation	3	3.15	1.036	1	5
Idealized Influence (Attribute)	3	3.06	1.015	1	5
Idealized Influence (Behaviour)	3	3.05	0.986	1	5
Individualized Consideration	3	2.95	0.904	1	5

Multiple Regression Test from the three variables, namely the quality of work life, Person Organization Fit and transformational leadership towards performances shows significant role towards performances ( $R_{y123} = 0.812$ ,  $R^2_{y123} = 0.659$ ,  $p = 0.000$  dan  $F = 98.520$ ). Of all the three variables, the variable which has most influential role is transformational leadership ( $r_{y3} = 0.800$ ,  $r^2_{y3} = 0.639$ ,  $p = 0.000$  dan  $F = 219.820$ ). Comes in the second place is Person Organization Fit which has a significant role and contributes towards performances as much as 44.3% ( $r_{y2} = 0.665$ ,  $p = 0.000 < 0.01$ ,  $F = 98.520$ ). The variable of quality of work life also has a significant role towards performances ( $r_{y1} = 0.198$ ,  $p = 0.026 < 0.05$ ,  $F = 5.083$ ) and eventhough among the other two variables, the quality of work life contribute only 3.9% in forming performances.

The strongest dimensions in creating good performances are organizational citizenship behavior ( $r = 0.987$ ), inspirational motivation ( $r = 0.798$ ), demand abilities fit ( $r = 0.643$ ) and pay benefit ( $r = 0.514$ ).

The quality of work life has a positive and significant role in creating performances. The correlation of quality of work life

accompanied by strategic action to obtain better performances as well as able to create competitive superiority (Poza, Tachizawa, Roselaine & Poza, 2013; Rubel & Kee, 2014). Person organization fit also creates performances and has a positive association towards task performance (Chi & Pan, 2012).

Performances significantly is affected by transformational leadership. Transformational leadership is able to become the motor and the innovative cultural transmitter as well as disseminate organization performance-oriented knowledge (Garcia-Morales, Jimenez-Barrionuevo and Gutierrez-Gutierrez, 2012).

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## Correlation Between the Reasoning Skill and Study Achievement of Students in Math

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### 28.1 INTRODUCTION

The main duty and obligation of education is to optimally develop the students' potential in where the learning process is the main activity in education. Of all other subjects, Math is one of important subjects which can make the students worry and afraid dealing with it. (Anxiety & Scale, 2003). The success in Math doesn't only require the knowledge of Math conceptually but also require the right mindset. (Wang et. al., 2015).

The students' achievement is, of course, determined by various factors starting from a repertoire of education policy, school programs, peers and many other factors (Burke, Sass, & Reserve, 2014). Nevertheless, Math is also one of the factors which can affect students' achievement. (Bohlmann & Weinstein, 2013). The contribution of various researches about Math gives an understanding that the success in Math doesn't only require knowledge on Math concepts but also the right mindset on Math.

Moreover, the students' negative responses towards Math affect the students achievements. (Beilock & Maloney, 2015).

A research finding shows that when the teachers focus on the sophisticated topic of Mathing and emphasize the learning process on finding solutions of new problems, the students' achievements will improve or increase faster. When the teachers focus more

On basic topics and emphasize the learning process on rote memorization, the students' achievements will be slower and when the teachers participate in the professional development which focuses on the content of Math or the learning strategy in Math, it is more possible for them to teach something related to the increase of the students' achievements (Desimone, Smith, & Phillips, 2013).

## **28.2 LITERATURE REVIEW**

Studying Math begins by building the important basic knowledge on Math which is then implemented in daily skills and practices (Notari-Syverson & Sadler, 2008). Thus, it requires different ways to improve the students' understanding because the understanding will support students' daily life.

A study case of Reggio preschool attempts to apply the curriculum in an unusual way. The children are given various assignments to engage in Math and other scientific experiences. Each material is taught by conducting dialogs and gardening activities so that various complex and abstract skill can be observed, predicted, evaluated and compared. The research finding shows that the children's ability of scientific reasoning will be more developed and more implemented in the real world due to their participation and the exploring of meaning and objective of this learning process. (Vandermaas-peeler & McClain, 2015).

It shows that the students' ability relates strongly with how the students learn certain subjects, especially Math. Math strongly connects with reasoning and thinking logically. Students learn the formulas and should be able to apply it so they can face the problems and solve them easily. (Bakó, 2002). The memory and the reasoning ability connect strongly with the students achievements in Math and reading. (Stevenson, Bergwerff, Heiser, & Resing, 2013).

### 28.3 MATERIAL AND METHOD

The research is conducted in 177 Junior High School South Jakarta, Indonesia. The research method is by a correlational survey. The survey also uses the Neuroresearch approach that is combining both qualitative and quantitative researches. In this case, the researcher reviews the theories to find construct theoretical (conceptual definition, dimension and indicators) as the result of qualitative study and later test the sample through quantitative research as the verification of the research hypothesis (Fios, Frederikus, Sasmoko & Gea, 2016).

The research population is all students from grade one to grade three of 177 Junior High School South Jakarta, Indonesia. The number of population is 1000 students in which each level consists of 10 classes with 35 students in each class. The sampling technique is simple random sampling. The number of samples is based on Krejcie and Morgan tables, in which the number of population of 1000, the researcher obtains 278 students by choosing 10 students per class. The instrument of reasoning ability is tested to 30 students. The data collection technique of Math study achievement is obtained from the documentation of students' score report. The content validity of the instrument of reasoning ability is conducted by rational judgment while the construct validity using neuro-research approach is by orthogonal iteration (Sasmoko; Ying Yi, 2015). With 30 students as respondents, the researcher obtains r-criteria as the guidance to accept or overrule the item with the significance level 0,05 which is 0,361. Based on the calculation of orthogonal iteration and after undergoing 2 times orthogonal iteration, there are 9 instrument items, out of 10, that can be the depiction of the valid instrument of the students' reasoning ability. The 9 items represent all indicators from the variable of students' reasoning ability. The coefficient of instrument reliability in the consistency of students' answers is using Alpha Cronbach coefficient (Sasmoko; Ying Yi, 2015). The index reliability 0,8957 is obtained from the coefficient of instrument reliability from the 9 items.

## 28.4 RESULT AND DISCUSSION

### Analysis Requirement Tests (Data Normality Test)

The normality test is conducted to find out the normality of the data distribution which will be analyzed. The data covers the variable of Math study achievement and students' reasoning ability. The normality test is using Lilliefors test or Shapiro Wilk or with Kolmogorov Smirnov formula in which the three of them control each other with the significance level 0,05 and the number of  $n$  is 278. The result of each calculation of normality test from the variable data of Math study achievement is 0,228, and from the variable data of students' reasoning ability is 0,182. From the result of the calculation, it is concluded that all variable data in this research come from normally populated distribution.

### Analysis Requirement Test (Linear Regression Test)

Linear regression test is based on the data of reasoning ability ( $X$ ) towards Math study achievement ( $Y$ ). The equation of linear regression line is  $\hat{Y} = 5,097 + 0,136 X$ . The result of  $F$  test calculation between students' reasoning ability towards Math study achievement 0,963 is non-significant at  $\alpha > 0,05$ . From the calculation, it seems that the value of  $F$  between reasoning ability ( $X$ ) towards Math study achievement ( $Y$ ) is linear.

### Correlation Analysis and the Testing of Research Analysis

The study hypothesis thesis: There is a positive and significant correlation between the reasoning ability and Math study achievement of students in 177 Junior High School, South Jakarta, Indonesia.

The calculation result of simple correlation shows that  $r_{yx}$  of 0,156 is very significant at  $\alpha < 0,01$ . It means that the reasoning ability correlates positively with students' Math achievement in 177 Junior High School South Jakarta, Indonesia.

### Analysis of Coefficient Determination and Significance of Regression Test

The analysis result of variance determination is 0,024 which means that 2,4% of the students' study achievement in Math subject is

caused by the role of their reasoning ability. If the condition of the sample correlation is predicted for the research population, the correlation shows highly significant condition with the  $t$  test value 2,623 which is very significant at  $\alpha < 0,01$ . From the calculation, the configuration of simple linear regression equation between the reasoning ability ( $X$ ) and students' study achievement in Math ( $Y$ ) is  $\hat{Y} = 5,097 + 0,136X$ . The linear equation means if the reasoning ability is raised one unit, the students' study achievement in Math will also rise 5,233 times.

The implication in the implementation of study development program is, if the aim of the treatment program is to improve students' reasoning ability, the students' study achievement in Math will rise 5,233 times. The result of linear regression significance test between the reasoning ability and students' achievement in Math shows the value of  $F$  as 6,885 which is significant at  $\alpha < 0,01$ . It means that the students' reasoning ability is able to predict significantly the students' achievement in Math in 177 Junior High School South Jakarta, Indonesia. It can be concluded that the hypotheses which states the positive and significant correlation between reasoning ability and students' achievement in Math is accepted. The result of the first hypotheses test shows that the close correlation between reasoning ability and Math study achievement can verified based on the study result. Thus, improving the students' reasoning ability affects the students' achievement in Math subject.

## 28.5 DISCUSSION

The result of the study embodies the meaning that the school attention in creating a learning process which emphasize the growth of students' reasoning ability can also create good achievement in studying Math. Reasoning relates with logical thinking process in facing problems by following the existing provision in which the role of limited memory capacity relates with cognitive ability, especially in facing complex assignment. So, reasoning becomes central subconstruct in students' achievement. (Süß, Oberauer, Wittmann, Wilhelm, & Schulze, 2002).

Reasoning can predict achievements depending on the learning method being applied. (Johnson & Lawson, A, 1998). The study

relates with cognitive microlevel management, mathematical thinking ability and knowledge brings us to the new finding which broadens our insights in education practice. (Tatsuoka, Corter, & Tatsuoka, 2004). It is also supported by the finding that the quality of learning process is important as a tool to diagnose the quality of learning process. (Sasmoko, Trilaksono, Indrianti, & Ahmad, 2016).

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## The Role of Work-Life Balance to Work Performance with Work Engagement as a Mediator

*Dina Aryanti, Rostiana and Kiky Dwi Hapsari*

### 29.1 INTRODUCTION

The success of a company in achieving the targeted objective highly depends on the capability and quality of the human resources (Burma, 2014). Digital media is presently a high developing business. The companies with the same kind of business will attract customers, so competition in giving latest news as well as satisfying customers with sufficient content is a must. The problem is the unavailability of performance evaluation where there are no criteria that can be used to evaluate. Balkan (2014) stated that work performance is frequently defined as measurement of result and resources to achieve objectives. Koopmans, Bernaards, Hildebrant, Schaufeli, de Vet, and van der Beek (2011) stated that work performance is defined (1) as behaviors and not as work results; (2) behaviors according to the company's goal; and (3) multidimensional in nature.

Employees with high work performance are employees who can balance their life, namely, between work and life. Asiedu-Appiah, Mehmood, and Bamfo (2015) found that work performance can be better if company improves policies from work-life balance. The study was conducted in a bank industry which found out that 76% participants sacrifice their personal life for work; 55% participants miss their non-work activities, and 56% participants postpone doing their personal activities. It can be concluded that if the company reach the target and able to be in its ranking now, it is because of the sacrifice from the employees. However, companies can perform more if their employees have work-life balance.

Work-life balance is also defined as work-family balance. To have a work-family balance, individuals must have full engagement towards their job and family. Work-family balance evaluates how far individuals involve and satisfy by the role in their job and family. There is positive correlation between low performance and negative work to life ( $\beta = 0,229$ ). The lower work-life balance, the lower work performance (Greenhaus, Collins, & Shaw, 2003). In the other hand, work-life balance refers to the balance between work and non-work situation (Hayman, 2005).

The existence of work-life balance enables employees to feel free and even increase work performance, lower absenteeism, as well as reduce the under-pressure employees, so that they feel more engaged towards the company and is usually known as employee engagement (Namita, 2014). In the research by Schaufeli and Salanova (2011), was stated that employee engagement is a wider concept and not only relates to the engagement with the company but also with the job function. The employee engagement towards their job is known as work engagement.

Alvi, Hussain, Tahir, and Gondal (2015) stated that employees who have work-life balance will show engagement towards their work. Work performance is also influenced by engagement towards their work. The study showed that when employees are engaged with their work, they will be able to show better work performance. In the study about job resources, work engagement, and work performance, Chung and Angeline in 2010 stated that work engagement can be a mediator for job resources and job performance. Work engagement also has linkages with work-life

balance. It also said that the involvement of individuals against high employment will lead to the increment of work performance (Bakker & Demerouti, 2008). By looking at the importance of work-life balance and work engagement in improving work performance, and so researchers wanted to know whether the work performance will increase if work-life balance is supported by work engagement.

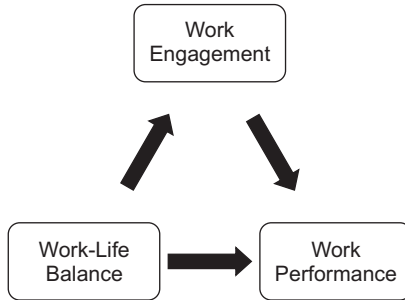


Figure 29.1: Research Model

## 29.2 LITERATURE REVIEW

### Work Performance

Work performance is marked by individual's success in doing the job. Work performance according to Koopmans et. al., (2011) has four dimensions. First, task performance requires competencies that are used to complete a task or job. While contextual performance can be defined as individual's behavior that supports the organization, social, and psychological environment, where core capabilities are required. Next, counterproductive work behavior is as behavior that harms the well-being of the organization, like absenteeism, presenteeism, engaging off-task behavior, theft, and substance abuse. Last, adaptive performance is defined as the degree to which an employee can adapt to changes in the work role or environment.

### Work-Life Balance

According to Hayman (2005), individuals with good life balance will orientate more on the duties, have logical arguments, and willing to

complete any given work. Work-life balance has three dimensions, namely (1) Work Interference with Personal Life (WIPL), reflects the extent to which the work can interfere with personal life; (2) Personal Life Interference with Work (PLIW) refers the extent to which personal life interfere with work life; and (3) Work/Personal Life Enhancement (WPLE), refers the extent to which the private lives of individuals can improve individual performance in work; and the extent to which the work can improve the quality of an individual's personal life (Hayman, 2005).

### **Work Engagement**

Based on the research of Schaufeli, Salanova, Gonzales-Roma, and Bakker (2002), work engagement has three dimensions. First dimension, vigor is defined as a high level energy, the willingness to provide energy, and not easily to feel tired or give up. Second, dedication is defined as an attachment that individual has, which is characterized by enthusiasm, pride, and continuously growing inspiration. Last, absorption is described as a totality by employees, which is characterized by time that goes by so fast, and the difficulty in separating oneself from the job.

## **29.3 METHODS**

Participants of the research are the employees of Digital Media Company, with purposive sampling method, with provision of minimum three months of services; worked in previous company minimum one year of service; and the participants' positions are from staff to directors. The sample taken 145 participants.

The instrument for Work Performance was arranged based on the development of measuring instrument from Koopmans et. al., (2001), Koopmans et. al., (2013), and Yusoff, Ali & Khan (2014). The measurement used Likert Scale, which referred to five choices of answers, from 1 ("never") to 5 ("always"). The measuring instrument of Work Performance consists of 46 items, with 11 items on task performance ( $\alpha = 0.937$ ), 21 items on Contextual Performance ( $\alpha = 0.956$ ), 7 items on Counterproductive Work Behavior ( $\alpha = 0.946$ ), and 7 items on Adaptive Performance ( $\alpha = 0.912$ ).

The instrument of Work-Life Balance was arranged based on theories from Jeremy Hayman (2005). The measurement used Likert-scale, which refers to five choices of answers from 1 (“highly disagree”) to (“highly agree”). The measuring instrument of Work-Life Balance consists of 14 items, with 6 items of Work Interference with Personal Life (WIPL) ( $\alpha = 0.789$ ), 4 items of Personal Life Interference with Work (PLIW) ( $\alpha = 0.718$ ), and 4 items of Work/Personal Life Enhancement (WPLE) ( $\alpha = 0.756$ ).

The instrument of Work Engagement is based on theories of Schaufeli, Bakker, and Salanova (2006). The measuring instrument in Indonesian language has been developed by Research and Measurement Department of Psychology in Universitas Tarumanagara in 2013. The measurement used Likert scale, which refers to five choices of answers from 1 (“highly disagree”) to 5 (“highly agree”). The measuring instrument consists of 17 items, with 6 items of Vigor ( $\alpha = 0.703$ ), 5 items of Dedication ( $\alpha = 0.760$ ), and 6 items of Absorption ( $\alpha = 0.782$ ).

## 29.4 RESULTS

Table 29.1 shows that most participants are male (60.7%), with the age group of 26 to 35 years old (55.2%) and have been working with the company under one year (53.8%). In addition, the majority position is at the staff level (67.6%). The data normality test is conducted by using One-sample Kolmogorov-Smirnov, with the result of data significance value  $p > 0.05$  (work performance  $p = 0.200$ ; work-life balance  $p = 0.200$ ; and work engagement  $p = 0.068$ ), so it can be concluded that the data of the variable is distributed normal. The data description of each variable is calculated by comparing the mean of the research data which is obtained by the mean of the measuring instrument, namely, 3.0. If the mean score of the research is bigger than the mean from the measuring instrument, the participants tend to have a high tendency; and if the mean score of the research data is smaller than the mean score of measuring instrument, the participants have a low tendency.

**Table 29.1: Research Data of Work Performance, Work-Life Balance, and Work Engagement**

<i>Dimensions</i>	<i>N</i>	<i>Mean</i>	<i>Std. Dev.</i>
Work Performance	145	4.01	0.328
Task Performance	145	4.01	0.365
Contextual Performance	145	3.93	0.362
Counterproductive Work Behavior	145	2.04	0.583
Adaptive Performance	145	4.15	0.441
Work-Life Balance	145	3.75	0.460
Work Interference with Personal Life (WIPL)	145	2.48	0.653
Personal Life Interference with Work (PLIW)	145	1.98	0.562
Work/Personal Life Enhancement (WPLE)	145	3.73	0.708
Work Engagement	145	3.82	0.480
Vigor	145	3.78	0.501
Dedication	145	4.00	0.585
Absorption	145	3.68	0.560

Based on linear regression of work-life balance and work performance, it is concluded that work engagement functions as a mediator ( $r_{y12} = 0.506$ ;  $R^2_{y12} = 0.256$ ;  $p = 0.000$ ; and  $F = 24,428$ ). Whereas linear regression on work-life balance and work performance without work engagement showed lower result ( $r_{y1} = 0.334$ ;  $R^2_{y1} = 0.112$ ;  $p = 0.000$ ; and  $F = 17,986$ ).

From the result of correlation matrix, it is known that Contextual Performance becomes the strongest dimension in generating Work Performance ( $r = 0,892$ ); Work Interference with Personal Life (WIPL) is the strongest dimension in generating Work-Life Balance ( $r = 0,844$ ); while Dedication is the strongest dimension in generating Work Engagement ( $r = 0,901$ ). Contextual Performance also contributes a strong role in generating Work Engagement ( $r = 0,509$ ); however, Counterproductive Work Behavior is the strongest dimension in generating Work-Life Balance ( $r = -0,433$ ).

Work Interference with Personal Life (WIPL) is the strongest dimension in generating work-life balance, however it doesn't contribute to Work Performance and Work Engagement ( $p > 0,05$ ). While Vigor is the strongest dimension in generating Work

Engagement ( $r = 0,486$ ), and Dedication is the strongest dimension in generating Work-Life Balance ( $r = 0,436$ ).

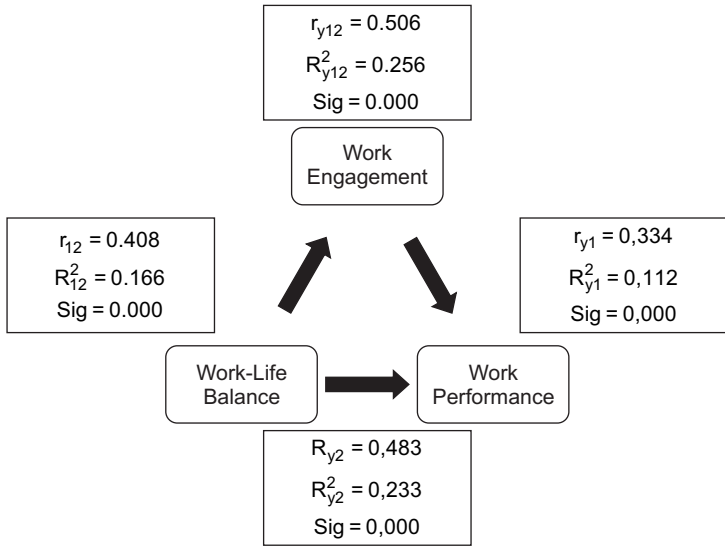


Figure 2: Result from Linier Regression

Table 2: Matrix Correlation Work Performance, Work-Life Balance, and Work Engagement

	Work Performance	Work-life Balance	Work Engagement
Work Performance	-	0,334** 0,000	0,483** 0,00
Task Performance	0,836** 0,000	0,195* 0,019	0,365** 0,000
Contextual Performance	0,892** 0,000	0,218** 0,008	0,509** 0,000
Counterproductive Work Behavior	-0,557** 0,000	-0,433** 0,000	-0,176* 0,034
Adaptive Performance	0,727** 0,000	0,224** 0,007	0,333** 0,000
Work-Life Balance	0,334** 0,000	-	0,408** 0,000
Work Interference with Personal Life	-0,154 0,064	-0,844** 0,000	-0,142 0,089

	<i>Work Performance</i>	<i>Work-life Balance</i>	<i>Work Engagement</i>
Personal Life Interference with Work	-0,313** 0,000	-0,682** 0,000	-0,226** 0,006
Work/Personal Life Enhancement	0,314** 0,000	0,612** 0,000	0,571** 0,000
Work Engagement	0,483** 0,000	0,408** 0,000	-
Vigor	0,486** 0,000	0,343** 0,000	0,863** 0,000
Dedication	0,436** 0,000	0,436** 0,000	0,901** 0,000
Absorption	0,351** 0,000	0,297** 0,000	0,855** 0,000

## 29.5 DISCUSSION

The result of the study showed that work-life balanced becomes the predictor for work performance. It is in accordance with the previous research by Asiedu-Appiah, Mehmood, dan Bamfo (2015) which stated that with work-life balance, the employees' work performance becomes better. A study in Turkey also stated that family is an important component which can boost individuals' work performance (Balkan, 2014). It is in accordance to the research conducted by Hayman (2009), which states that the lower Work Interference with Personal Life (WIPL) and Personal Life interference with Work (PLIW) that the employees' have, and so the higher level of work-life balance will be gained.

The study finds that Work/Personal Life Enhancement contributes to work performance. There hasn't been any researches with Hayman theory which relates the work-life balance with work performance as Hayman (2009) conducted research about perceived usability. So, it can be a new finding that correlates the contribution of each dimension of work-life balance towards work performance. The study also concludes that Vigor is the most contributing dimension towards work performance. It is in accordance to the research by Carmeli (in Owens, Baker, Sumpter, & Cameron, 2016), which states that employees with a high vigor



will increase their work performance easily because high-spirited employees tend to do the best.

The study also proved that work engagement can be a mediator towards work performance. It is in accordance with the research conducted by Chung dan Angeline (2010), which states that work engagement becomes a mediator between job resources and extra-role performance. It can also be concluded that employees will show better work performance if they can control their work and receive social support. The employees who have this kind of resources will be more engaged compared to those who do not. It strengthens the study as a basis for further study.

## **29.6 LIMITATION**

At least there are three limitations for future improvement. First, the research is based on the self-report questionnaire. It can cause faking good or faking bad during filling in the questionnaires. Thus, it would be better if the superior of the participants also fills in the questionnaire to avoid biases. Another limitation is also related to the participants' length of services. It is recommended that employees who become participants at least have a one-year service. Lastly, it is also necessary to relate the research with organizational commitment, which can contribute towards work performance. It is known that work-life balance has significant and positive correlation towards organizational commitment (Gulbahar, Ch, Kundi, & Qureshi, 2014); work engagement becomes a mediator of organizational commitment (Geldenhuys, Laba, & Venter, 2014); and organizational commitment is a predictor of work performance (Khan, Ziauddin, Jam, & Ramay, 2010).

## **29.7 CONCLUSIONS**

Work-life balance has a role as a predictor towards work performance. The higher the adjustment between time and efforts to work and do the activities, both work and non-work; the higher the chance of employees to show behaviors that correspond to company's goal. Work engagement also has a role as a predictor of work performance. The more employees engaged to their job, the

higher individuals show the behaviors that correspond with the aim of the company. Lastly, work engagement functions as a mediator between work-life balance and work performance. It shows that if there is balance between work and personal life, and so with addition of work engagement, employees can perform better.

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## Lifelong Learning in Malaysia in Education Current Issue and Future Trend

*Zaipah Binti Ismail and Aede Hatib bin Musta'mal @ Jamal*

### 30.1 INTRODUCTION

Malaysia is a developing country, which will face the challenges of the 21st century competition. However, Malaysia has a strong determination to become a developed country, competitive and resilient to achieve Vision 2020. Consequently, Malaysia desperately needs people with first class mentality and have always dominated the science. In order to produce human capital with quality, the government and the people should work together and take responsibility for the implementation with full commitment.

The Malaysian government has allocated a total amount of RM 45.15 billion for human capital development under the 9th RM. RM11.27 billion of the total amount was allocated for educational purposes and RM 4793 billion for training purposes (RM-9 2006-2010). This is a national effort to encourage Malaysians to participate in lifelong learning programs in order to produce world-class human capital in achieving the goals of Vision 2020. National

IT Agenda (NITA), the Multimedia Super Corridor (MSC), the emphasis on science and technology, and stimulate R & D, are part of the efforts to enhance the intensity of technology and capability in Malaysia (Yahya *et. al.*, 2013).

All Malaysians have the opportunity to get an education for a lifetime, formally or informally. According to Ramlan (2008), lifelong learning is not limited to those who are working only, it also involves all walk of life including housewives, pensioners, the disabled and the elderly. Through lifelong learning, it can help to improve the quality of life of individuals and society.

## **30.2 MATERIAL AND METHODS**

### **Material**

Appropriate articles and journals were searched in search engines such as Google, and yahoo (<http://www.google.com.my>, and <http://www.yahoo.com>). In addition, the theses were retrieved from reference library of University Technology Malaysia (UTM) website ([www.utm.my/SPZ](http://www.utm.my/SPZ)). Furthermore, information was also sought from textbooks, journal articles, conference proceedings, discussion papers, reports.

### **Procedure**

Review of relevant literature was used to collect data for this article. Documents and results from various researches that have been read, understood and appreciated in depth, were analyzed. Results of the analysis are discussed to produce this article.

## **30.3 RESULT**

The study of lifelong learning consists of four parts; definitions, concepts, current issues and challenges, future trends and the role of educational institutions for the present and future.

### **Definition of Lifelong Learning**

Lifelong learning is defined as learning on an ongoing basis until the end of life without any coercion and has a high motivation to gain

knowledge, the divine and skills in their respective fields. It occurs throughout life. According to Green, A. (2002), lifelong learning is learning that occurs at every stage of life cycle (from cradle to grave) and covers the whole life of school, workplace, home and community. Community with lifelong learning is a community with an insight and recognizes the opportunity to learn for all people, wherever they are and how long they need it.

The process of continuing education can help individuals adapting to various conditions which constantly change with time. The View from the European commission (2001) defines lifelong learning as all learning activities which are carried out throughout life with the intention of improving knowledge, skills and competencies, in oneself, civic, social and employment-related perspective. In the perspective of Malaysia to become a developed country and achieve Vision 2020, lifelong learning is a process of democratization of education which includes the acquisition of knowledge, skills and competence either formal or informal, based on experience and training in the workplace (Ministry of Higher Education, 2007). In conclusion, lifelong learning is defined as learning since an individual is born until the end of his life and does not stop at teenage or adult years, but should be continue throughout the whole life.

### **The Concept of Lifelong Learning**

Lifelong learning encompasses formal and informal learning. Formal learning is carried out at the institute, school systems, and organizations that have organized training programs, with trainers who have been prescribed. Informal learning also provides the knowledge and skills which will also have recognition in the form of a certificate. According to Mike Sharples (2000), lifelong learning is a long and thorough process to develop the skills and understanding from childhood to adulthood.

On the other hand, informal learning can occur in any circumstances and places such as homes, mosques, community centers and so forth. Learning does not necessarily mean that one must have the qualifications or recognition in the form of a certificate. Generally, informal learning consists of learning

activities which are not structured for the need of knowing a thing, indirectly or unconsciously. For examples, the students gain knowledge in education and parental care at home, by socializing with friends, listening to radio and watching television. Informal learning also received indirect based on any syllabus and consists of learning activities which are generally not structured that individuals strive to meet the needs to know about certain things (Yahya et. al., 2013).

Therefore, lifelong learning is very important to be understood and internalized by all Malaysians because the success of the country depends on the quality of its human capital. The target is to produce human capital of high intellectual and at the same time have a noble character (Muhammad Hisyam, 2013).

### **Current Lifelong Learning**

Changes in global economy and work environment, rapid technological progress, and increased competition for the job make lifelong learning should be strengthened and implemented regardless of gender, age, occupation, and areas of expertise. Today, interaction technologies can be seen in almost every aspect of daily life. The globalization of technological changes the society. The explosion of information technology, especially digital and computing power has challenged the education system, including learning theory to change. Nowadays, the concept of cyberspace and virtual universities provide distance learning or online (online) via the World Wide Web (WWW) with the help of information and communication technology.

Technology changes the learning method. It is in line with the challenges ahead. People nowadays see, react, and interact with the technology that affects human life widely, from entertainment to education and health care. Society has become more dependent on technology. New opportunities and ways to integrate technology into the learning process are being created every day. According to Marjan Laal (2013), currently, lifelong learning of communication technology (ICT) is very important to increase creativity and support. Current technologies on the individual, the home and in the community are very supportive of lifelong learning: ICT is a key component in personal mergers, private, leisure and work time.

## Lifelong Learning Future Trends

Malaysia aims to become a developed nation in our own mold by 2020, and achieve a balanced development of economic, political, social, spiritual and cultural. Furthermore, the country also aims to become a nation with a united community, have high confidence, hold fast to the religion, morality and ethics, and enjoy a life that is democratic, liberal tolerant, sharing fair and equitable economy, progressive and prosperous, and dominate the competitive economy, dynamic, agile and resilient. This statement is in line with the National Education Philosophy of Education in Malaysia which states; 'an ongoing comprehensive and integrated effort to create a harmonious and well-balanced human being in order to produce knowledgeable, competent, honorable, responsible and capable Malaysian citizens so that people can live in harmony and enhance the development'.

Hence, Malaysia is committed and striving to become a developed, strong, united nation and remain intact in the face of challenges and obstacles. According to Siti Shamsiah (2013), in order for a country to form a community that makes lifelong learning a culture, the government has put a high focus and concern on this matter in the Ninth Malaysia Plan 2006-2010, which provides more opportunities for quality education and lifelong learning. This statement is reinforced by the benefits, performance appraisal Zahiah *et. al.*, (2010), which states that a country that wants to move forward and succeed in a knowledge-based economy, should provide opportunities for lifelong learning to its human capital and become a way of life. In addition, the National Mission to achieve Vision 2020 puts high emphasis on human capital development of 'first class mentality' by providing more opportunities and access to quality of education, training and lifelong learning at all levels (James *et. al.*, 2008).

Future Malaysians should be aware of the importance of increasing knowledge and skills upgrading to increase productivity or service. Therefore, lifelong learning must become a culture among the people of this country despite the age of the individual. Individuals who have already past the age of 40 years must also be motivated to continue learning, whether formal or informal.



This opinion is in line with Ministry of Higher Education (2007), which states that, a life-long learning through distance or part-time education, *e-learning*, or workplace learning has become part of the culture and a way of life to support the development of human capital and fulfill the needs of economy knowledge and innovation.

Lifelong learning is now widely open for everyone to gain knowledge and skills they need to succeed in a rapidly changing world. Mike Sharples (2000) noted that in the present and future, students should not be tied to a specific location. They will be able to study at home, workplace, library or the local shopping center, as well as in colleges and universities. Furthermore, the people will be able to learn at a distance using the broadcast media and online access. Currently, there are new educational technologies that use a small personal computer system using tactile hand to support learning throughout a lifetime location of the handler with the concept of the future of computers that can talk, smart and have a human personality in the machine. Many benefits could be gained through the process of lifelong learning. For example, it could help a person to obtain a certificate, skills and knowledge in the use of technology provide economic benefits to the community and improve the living standards in terms of finance and economy (Marjan Laal, 2012).

### **Current Issues and Challenges**

In order for a country to develop, the culture of knowledge is very important to produce wide, knowledgeable and highly skilled workers in their respective fields. Learning does not only in the institutions but also in the workplace as the environment changes due to the changes in current technology. The implementation of lifelong learning should be strengthened in all organizations to enhance their skills and create a corporate working environment (Mimi Mohaffy, 2010).

The present scenario, where the work situation, changes in economy, global markets and technological progress is highly dependent on technology makes lifelong learning should be implemented to all employees. Training and development, human

resource development, re-education and re-training, need to be upgraded from time to time to ensure that all employees receive training and education to improve their skills in their respective fields.

Therefore, higher education needs to be more flexible, more open, and easier to cooperate and provides space for those who wish to participate in the program. In addition to providing a wide range of higher education programs, other institutions should collaborate to offer various programs either full time or part time. Each of the programs that will be implemented should be well planned and organized (Ministry of Higher Education, 2007).

### 30.4 CONCLUSION

To achieve the goals of Vision 2020, Malaysians need a paradigm shift on the importance of knowledge and skills to meet the challenges of globalization. Human resource development is the core to the success of a country. The impact of globalization is inevitable. Thus, society needs to move quickly along with the changes to be the first-class talent in any field of endeavor. With various facilities provided by the government, whether formal or informal, such as higher education institutions, schools, internet, technology and other necessities, Malaysians should be motivated to acquire new knowledge through lifelong learning.

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## Mathematical Problem Solving Ability Among form Four High Achievers in a Boarding School

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### 31.1 INTRODUCTION

Contradict with the obsolete teaching practice that concentrate on content and procedure (Roslinda et. al., 2013), the idea of engaging students in mathematics learning through context-based learning environments that is associated with interesting activities could be the alternative to overcome the mathematics problem solving difficulty among students. Although the National Council of Teachers of Mathematics (NCTM) in 2000, pointed out that the central theme of learning mathematics should focus on problem-solving abilities, the implementation in real classroom setting is still vague. Therefore, in order to retain students' knowledge through problem solving skills, the new curriculum of mathematics learning should be carried out by focutsing on exploration, communication and conceptual aspect through hands-on activities (Guyen and Cabakcor, 2013).

Students' ability to ascertain the main idea of the problem, overcome the barriers and reinforce the effective solution will be closely engaged with critical and constructive thinking. During the thinking process, students will recall the skills they have learned, manipulate the information, generate ideas and restructure the existing knowledge and adapting it to the problems encountered (Pólya, 2004; Schoenfeld, 2011).

### **31.2 BACKGROUND OF THE STUDY**

Despite the students' impeccable results in public examinations, their low performance in problem solving still haunting the educators and students. Most learners faced difficulty in solving open-ended problems due to the lack of thinking ability (Fah, 2009) and shallow understanding of concepts (Johari *et. al*, 2014). Besides, recalling facts are still dominant in the mathematics learning processes in school (Tan and Siti, 2015). Therefore, the inculcation of higher order thinking should be implemented to further enhance students' capability in reasoning and analyzing (Gürbüz, 2010).

In order to generate student's thinking process, exposure towards a complex or non-routine problems is recommended (Polya, 1945; Schoenfeld, 2011). Students need to utilize logic and lateral thinking to understand the fundamental cause of the problem and devise a plan to yield multiple alternative solution and strategy. Frequently cognitive thinking exercises will helps in developing new knowledge because Polya affirmed that problem solving skill cannot be inherited. Students' capability to reconstruct the skill to solve problems in everyday life (Shute & Wang, 2015) enable them to compete in future global workforce (Grieff *et. al.*, 2014).

### **31.3 OBJECTIVE OF THE STUDY**

The purpose of this study was to investigate the students' ability in problem solving based on the score marks obtained in the assessment. The assessment relate students' thinking skill to solve problems based on real life situations. The findings are deliberated to answer the following research question:

**Research Questions 1:** What are the levels of problem solving ability among high achiever students in mathematics?

### 31.4 METHODOLOGY

The sample consisted of two classes from one of boarding school in Kedah. A total of 56 students (30 science and 26 accountancy students) were purposively selected based on their moderate mathematics achievement in Form Three Assessment (PT3) result; one of the public examination involving form three students in Malaysia. Form four student was chosen as they have the potential to be chosen for international assessment, known as Program for International Student Assessment (PISA) and they have had the experience on answering open-ended questions in their PT3 test.

The Mathematics Problem Solving Skills (UKPMM) test assess the students' based on achievement score. The UKPMM scores range between 0 to 100 percent for 18 open-ended questions in each section with the timeframe of two hours to be completed. The marks obtained revealed the overall performance to measure the level of problem solving ability. The UKPMM test was reviewed and validated by mathematics expert teachers prior study to ensure that all the items measure exactly what they intend to measure (Drost, 2011). These expert teachers were selected based on their expertise in creating mathematics SPM questions.

This study employed descriptive analysis method to generate information on the problem solving ability in mathematics. The percentage were used to indicate the level of problem solving ability according to each sections and total score. The results were then interpreted according to four levels in problem solving based on PISA Problem Solving Rubric which introduced by OECD (Reeff et. al., 2005) (Table 31.1). This rubric categorized problem solving ability into four level. Level 1 portrayed a restricted ability in problem solving whilst level 4 represent the noble level of problem solving.

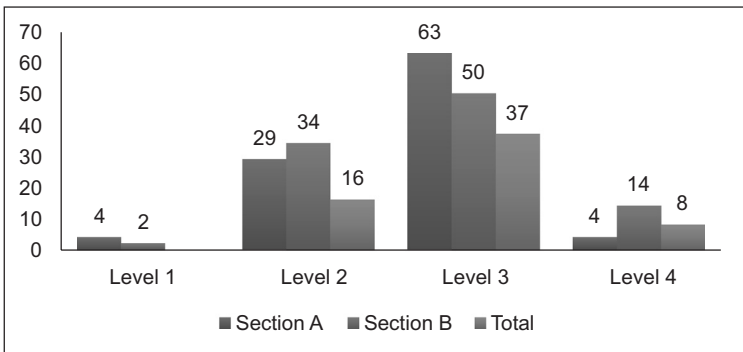
**Table 31.1: Problem Solving Rubric For PISA (Reeff et. al, 2005)**

Level	Indicator	Description	Skill
1	Elementary level	Concrete, limited tasks can be mastered by applying content-related, practical reasoning. At this level, people will use specific content related schemata to solve problems.	Content-related reasoning
2	Moderate level	At least basic systematic reasoning. Problems at this level are characterized by routine, one-dimensional goals; they ask for the evaluation of certain alternatives with regard to transparent, explicitly stated constraints. At this level, people use concrete logical operations.	Evaluating
3	Satisfactory level	People will be able to use formal operations (e.g. ordering) to integrate non-routine goals, or and to cope with non-transparent or multiple dependent constraints.	Ordering Integrating
4	Highest level	People are capable of grasping a system of problem states and possible solutions as a whole. Thus, the consistency of certain criteria, the dependency among multiple	Critical Thinking

### 31.5 FINDINGS

The finding is discussed based on the objective of this study. Data relevant to the research questions are presented below. Although, this study was administered among the high achievers, the results were quite surprising. Only 10% manage to score 71 marks and above.

**Research Question 1:** What is the level of problem solving ability among high achievers?



**Figure 31.1:** Level of Problem Solving Ability By Section

Figure 31.1 shows the distribution on students' level of problem solving ability based on the two sections of the test. At a glimpse, most of the students were grouped at level 3, indicated that they managed to score marks between 51 to 75 percent for each section. Although the score in Section A is higher about 13% compare to the score in Section B but it does not measurably different from the overall achievement score. In level 2, some 16% of the students performed at the moderate level with the structured section marks were slightly higher than multiple choice items.

Unexpectedly, 6% were at the elementary level or level 2 for scoring minimally in both sections. However, the graph exhibit that none of the students were classified as level 1 if the overall percentage is accounted for. Despite of high achievers excellent reputations, only 8% grasped to be in the highest level in problem solving ability. Unfortunately, the proportion of level 4 is insignificant when compared to the whole sample.

## 31.6 DISCUSSIONS

This study was designed to generate knowledge about the ability of problem solving among high achiever in a boarding school. For that purpose, the modified PISA mathematics questions that is in line within the Malaysian context was used to investigate students' level in solving problem. Exposing an open-ended questions based on everyday situation might be beneficial in the long term due to the acknowledgement that problem solving skills can be learned and practiced.

As shown in the findings, the proportion of students with high-ranking skills of solving problem is too small and quite disappointing. It can be concluded that high achievers too, struggled with the problem solving ability in mathematics. High achievers are said to be effective in solving problem because they are expert in memorizing the facts. This finding is heartbreaking because high achiever actually refers to students whose learning ability is better than their peers in regular schools in terms of IQ and academic achievement (Gorodetsky and Klavir, 2003).

However, the students cannot be blame alone because drill practice in mathematics has always been a culture in our education



system as it emphasizes on students' performance in standardized examination (KPM, 2013). Instead of implementing inquiry-based learning, teachers have the tendency to spoon feed their students by showing the step by step algorithm in calculations (Mohd Ariff, Rohani and Mohd Zain, 2010). Adding to that, these teaching and learning styles were favored by the students and teachers.

A few students labelled as elementary level because they were not even trying to find the solution and found only to solve either Section A or a few questions in Section B. However, level 2 students showed low skills in planning solution and strategies, they easily jump onto the conclusion and will start calculating without thinking systematically. Some student preferred open-ended questions as they are freely to do trial and error without wondering about the answer provided.

### 31.7 CONCLUSIONS

The results of this study concluded that high achievers may acquire skills well; unfortunately the knowledge is not attributed to real life situations. In addition, capability of integrating the knowledge into the problem solving procedures using existing cognitive structure could be an effective way to be a good problem solver (Johari *et. al*, 2013). We do realize that the proficiency in mathematics problem solving is significance as it pervades in every part in our daily lives. Besides being the language of science and engineering; to be experts in these disciplines help to equip future manpower to be able to compete in the knowledge-based economy of the 21<sup>st</sup> century (Pimta *et. al*, 2005). Problem solving help students to develop the thinking process, to execute variety of ideas and able to state the argumentations. Therefore, integrating science, technology, engineering and mathematics (STEM) might serve as a starting point for teachers to enhance students' learning in more engaging and relevant means.

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