Advances in Urban Lifestyle and Technology

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Edited by

Wayan Suparta

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PREFACE

Urban issues have posed important challenges for social strata, environmental management of cities and urban areas, and the economy. Especially for lifestyle problems that are always new because of changing customer preferences and needs. New directions and developments in the field of urban study, and discussion of future priorities for a better lifestyle, sustainable development, and the need for appropriate technology are a necessity. This is a basic human need for the future and is an important challenge for the environmental management of cities and urban areas.

This book discusses in detail the advances in the application of psychology, communication sciences, education, and information system as well as economics to provide the latest views and new solutions to new technology adapted to achieve urban sustainability welfare. For instance, green elements in buildings and green homes for residential areas needed adaptation to extend the useful life of buildings and the comfort of their inhabitants. Design with cheaper materials and resistance to weather changes are also taken into account. This also involves how the economic cycle in urban cities invites start-ups and their derivatives to start opening businesses. Even the megatrend 2030 predicts that urbanization will increase sharply, large-scale movements from rural to urban areas and land will be increasingly narrow. The ease of technology will change the business model. All of this must be well anticipated, comprehensive, dignified, and innovative. Academics, researchers, practitioners, intellectuals, and NGOs play an important role together with the authorities to contribute to urban sustainable development.

This contributed volume presents solicited selected papers of the 2020 International Conference on Urban Sustainability, Environment, and Engineering (*CUSME 2020*) with the theme "Urban Life and Technology". The book covers the point of view with four scientific sections: (i) urban psychology and cultural, (ii) urban economics and lifestyle, (iii) urban architecture and green technology, and (iv) climate change and urban environments, which are addressed to Professors, postgraduate students, and scientists who took part in R & D. The results of the study at this conference will certainly support government policies, stakeholders, policymakers, scientists, and engineers in a real effort to reach a stage of

economic sustainability and social fairness, improvement of quality of life, and environmental protection.

The conference organizer and all our contributors wish to pleasantly thank for their efforts to provide this volume. We wish to acknowledge Adam Rummens for supporting our book proposal and also gratitude to Cambridge Scholars Publishing for granting the opportunity to publish these conference proceedings and for their cooperation and support.

Wayan Suparta, PhD
Chairperson of CUSME 2020
The Editor-in-Chief

SECTION I:

URBAN PSYCHOLOGY AND CULTURAL

CHAPTER 1

VERBAL AGGRESSIVENESS OF SELF-IDENTIFIED AND NON-IDENTIFIED HATERS IN SOCIAL NETWORKS

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ABSTRACT

Haters easily judge and express their minds in social networks in the form of bad, hateful or rude words. These are forms of verbal aggressive behaviour which attack someone's self-concept and can result in psychological grief. This descriptive study investigated the verbal aggressiveness of haters in social networks. Purposive sampling obtained 237 respondents who were members of an online haters community, aged 13–21 years old. They were divided into two groups: 185 respondents who self-identified as haters and 52 who did not. Results showed that 30% of both groups had high verbal aggressiveness. An additional finding showed that, in the sample studied, college girls between 19 and 21 years old scored highest in verbal aggressiveness in both groups.

Keywords: Social network, Hater, Verbal aggressiveness

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INTRODUCTION

Social networks such as Facebook, Instagram, Twitter, etc. can have positive value, such as connecting with other people around the world, supporting fundraising, developing creativity, generating income and so on. Nevertheless, many also use them to carry out negative activities such as uploading writing, photos or videos that are not in accordance with social norms, and those are responded to with negative or harsh responses. These kinds of responses are also contrary to social norms or even the law. These situations can happen to anyone but are more commonly experienced by artists, celebrities or other famous people through their social networks.

People who give negative responses are often referred to as 'haters'. The term describes people who hate celebrities or people they know, and they do not hesitate to attack their targets with their words. The phenomenon of haters showing their hostility is a part of cyberbullying, and it does not stop when the victim leaves school because it also happens at work (Kowalski et al., 2012). Cyberbullying itself has been linked to several negative emotions, including burnout. It has been defined as a behaviour to hurt or harm other individuals, intentionally and repeatedly, through electronic media (Turan et al., 2011). It occurs through short messages (SMS), electronic mail (e-mail), chat rooms, websites and social networking sites (Kowalski & Limber, 2013), but nowadays social networking outstrips them all.

Negative behaviours made by haters indicate aggressiveness at a high level, even though they are often not in direct physical contact with their victims. The hater's behaviour is a form of verbal aggression because of their behavioural traits, which are: (1) attacks on a person's character, (2) attacks on a person's abilities, (3) insults, (4) teases, (5) jokes, (6) curses, and (7) nonverbal emblems (Infante & Wigley, 1986). Aggressiveness is an intentional behaviour towards other individuals with the aim of injuring or hurting them (Palinoan, 2015). Verbal aggressiveness is inherent in interpersonal and symbolic communication skills that are both constructive and destructive, and is just as dangerous as physical aggressiveness (Infante & Wigley, 1986).

Indonesians are very much aware of verbal aggressiveness in social networks (see Fig. 1). Overall, 91% of participants of this research claimed to have known and been exposed to practices of verbal aggressiveness in their social networks. This behaviour caused unrest in Indonesia and made the Government Issue the Law on Information and Electronic Transactions (ITE) in 2008 and a Circular Letter (SE) of the National Police. The law was long overdue considering that the commercial

use of the internet in Indonesia began in 1994 (STEI ITB, 2017). The law was updated in 2016 to cover some loose ends and loopholes, but haters' behaviour keeps on increasing and cannot be controlled. So it is not surprising that in 2017 and 2018, 45% of all cybercrime in Indonesia was of defamation and hate speech (Chintia et al., 2018).
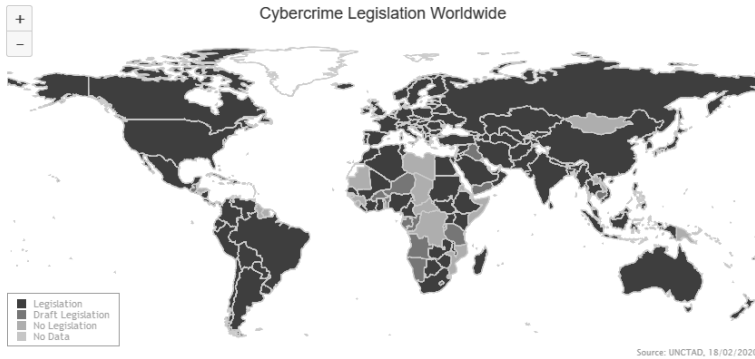
Fig. 1. Indonesia is among the nations with cybercrime legislation

It is not hard to find haters who ended up being reported and facing fines or jail time. Some of them confessed and apologized on their own social media to make peace with the aggrieved party. However, these cases do not set an example for others. One explanation of the phenomenon is that social media can escalate verbal aggressive behaviour, which is a typical characteristic of a hater (Pradipta, 2016). High usage of social media causes haters to be bolder in expressing their aggressive views. This happens because they consider it as their expression of criticism or opinion. Therefore, it is important to describe the verbal aggressiveness carried out by haters to distinguish it from simply being a form of expressing one's opinion.

METHODS

Hate is an emotion associated with frustration, anger and disgust. Haters are people who have stable, long-lasting and long-term feelings of hatred (Bernhard, 2015). They are quick to rate, judge or badmouth on social networks. In this study, haters were characterized as those harbouring hatred for at least a month and expressing it toward an artist or a celebrity (see Fig. 2). Participants in this research were required to have social

networking accounts, to have made comments on social media at least five times on a regular basis, and have identified themselves as haters who have hated another person, an artist or a celebrity for at least one month.
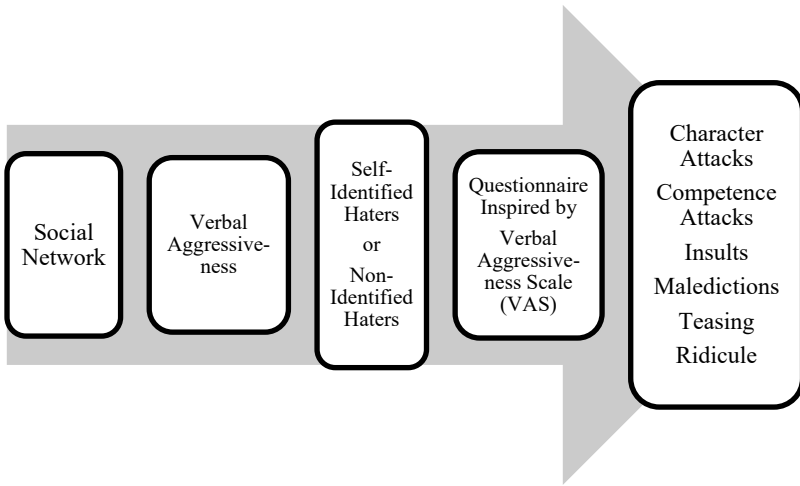
Fig. 2. Research framework

This quantitative research used purposive sampling and asked 237 male and female adolescents aged 13–21 years old to fill out a questionnaire regarding their verbal aggressiveness. Adolescents were targeted because this period is a transition from childhood into adulthood that involves changes in biological, cognitive and socio-emotional factors (Santrock, 2008). Adolescents have a tendency to be more aggressive, emotionally unstable and unable to resist their desires. When they cannot adapt to an ever-changing environment, they will engage in maladaptive behaviours, such as aggressive behaviour that could harm themselves or others.

Expressing hatred may fall into the verbal aggressiveness category. This study defined verbal aggressiveness as messages exchanged between two persons where at least one person attacks the other person to inflict psychological pain. This study measured verbal aggressiveness with an instrument inspired by the Verbal Aggressiveness Scale (VAS) of Infante and Wigley (1986) with moderate changes.

The original Verbal Aggressiveness Scale (VAS) is widely accepted and often used as a measuring tool of the nature of verbal aggression. It is a unidimensional scale with positively and negatively worded items. All

20 items are correlated with traits of verbal aggressiveness (see Table 1). This study developed a scale of verbal aggressiveness for haters based on VAS and using its dimension combined with forms of verbal aggression. Initially, the new scale consisted of twenty items; however, three items, all of which were unfavourable, were removed after validity testing. The remaining 17 items were utilised, and the reliability of the instrument was found to be Cronbach's alpha = .892.

Table 1. Blueprint of instrument

Form of verbal aggression	Item number	Example
Character attacks	2, 3, 6, 14*, 16, 17 and 20*	When an artist/celebrity simply will not budge on a matter of importance, I lose my temper and say rather strong things to them
Competence attacks	1, 8, 18 and 19	When an artist/celebrity refuses to do a task I feel is important, without good reason, I tell them they are unreasonable
Insults	4, 5, 7, 11* and 15	When an artist/celebrity is very stubborn, I use insults in social media to soften the stubbornness
Maledictions	9 and 10	I write a malediction toward an artist/celebrity who criticizes people's shortcomings
Teasing	12	I like poking fun at an artist/celebrity in their social media
Ridicule	13	When I feel an artist/celebrity has poor taste, I ridicule them through social media

ªnumbers followed by asterisk are deleted items

Participants were contacted personally based on observation of their activities in social media networks, especially in online hater communities. They were asked to identify themselves as a hater or not. After that, they were asked to fill in the instrument. A Likert scale, ranging from 1–4, was used to prevent participants from giving doubtful answers. They were asked to choose answers which described themselves as they use social media. In favourable items, the score obtained from the responses is from 1–4 and vice versa for unfavourable items. The scores obtained are as follows: strongly disagree represented by a score of 1;

disagree represented by a score of 2; agree represented by a score of 3; and strongly agree represented by a score of 4. The total score was obtained from the score enumeration of each item after reversing scores of the unfavourable items.

RESULTS AND DISCUSSION

The norm was calculated using the Z-score technique categorized into five categories: very low range (Z -1.5) from 17 to 30; low range (Z -0.5) from 31 to 41; average or moderate range (Z 0) from 42 to 53; high range (Z +0.5) from score 54 to 64; and very high (Z +1.5) from 65 to 68.

Table 2. General data of self-identified haters

Age	Male	Female	Total	Percentage
13−15	3	18	21	11
16−18	13	48	61	33
19−21	33	70	103	56
Total			**185**	**100**

A total of 185 participants identified themselves as haters (see Table 2). Of these, 42% (n=78) were haters for more than six months. Most participants were in college (n=106), while the remainder were in middle school (n=8), in high school (n=54) or working (n=17). All participants had an Instagram account, and just below half had a Facebook account (n=79) and/or a Twitter account (n=78). The results of verbal aggressiveness scores were obtained by using Statistical Package for the Social Sciences (SPSS) version 2.0 and fifty-seven (57) participants had high or very high verbal aggressiveness. The average value was 47.46, and the standard deviation was 11.233. In addition, there was also a minimum value of 17, a maximum value of 68 and a modal value of 51.

Fifty-two (52) participants identified themselves as a non-hater (see Table 4) although they were a member of an online hater's community and making harsh comments on social media accounts of an artist or a celebrity. Of these, 27% (n=14) had hated an account in social media for more than six months. Most participants were in college (n=30), while the remainder were in middle school (n=4), high school (n=13) or working (n=5). All participants had an Instagram account, and slightly more than half had a Facebook account (n=30) and/or a Twitter account (n=28).

Table 3. Verbal aggressiveness scores of self-identified haters

Categories of Verbal Aggressiveness	Scores	Frequencies	Percentage
Very Low	17−30	29	16
Low	31−41	35	19
Moderate	42−53	64	34
High	54−64	28	15
Very High	65−68	29	16
Total		**185**	**100**

Table 4. General data of non-haters

Age	Male	Female	Total	Percentage
13−15	0	5	5	10
16−18	5	15	20	38
19−21	5	22	27	52
Total			**52**	**100**

The average verbal aggressiveness score of these individuals was 31.98, and the standard deviation was 8.3388 (see Table 5). The Z-score was also used here, and the five categories were: very low (Z -1.5) from 17 to 19; low (Z -0.5) from 20 to 27; average or moderate (Z 0) from 28 to 36; high (Z +0.5) from 37 to 44; and very high (Z +1.5) from 45 to 52.

Table 5. Verbal aggressiveness scores of non-haters

Categories of Verbal Aggressiveness	Scores	Frequencies	Percentage
Very Low	17−19	9	4
Low	20−27	6	11
Moderate	28−36	21	42
High	37−44	14	26
Very High	45−52	2	4
Total		**52**	**100**

Results showed that thirty percent (30%) of haters were proven to have had high or very high levels of verbal aggressiveness in the form of aggressive sentences on social media. This result is in accordance with previous research which says that haters tend to be bold in expressing opinions in sentence form: aggressive because they perceive it as a form of criticism and opinion (Pradipta, 2016). Their view is that this criticism responded to issues that need to be 'straightened out' and that their actions were needed and was a 'good thing'. This point of view clearly showed in

answers given to item number 14: it almost always received a full score of 4 (Strongly Agree) from both haters and non-haters. The item was 'I berated an artist/celebrity who behaves badly through comments or direct message in social media so the person becomes better'.

Thirty percent (30%) of participants identifying as non-haters also had high or very high verbal aggressiveness. It is important to point out that both groups were analysed using different norms, depending on their own data. If we used haters' norms for all participants, then the non-haters would only fall into the moderate level. Nonetheless, this finding suggests that even the non-haters joined an online hater community and tried to moderately hurt someone through their comments on social media, and 27% of them had hated a person for more than six months. So why they would not identify themselves as a hater?

Self-deception could be an explanation. Self-deception is one of two kinds of social desirability, which is how a person responds to enhance some positive social characteristics and minimize the presence of some socially undesirable characteristics in accordance to the community. Self-deception is somewhat a person's defence mechanism when caught red-handed joining an online haters community and writing harsh comments. They do not identify themselves as haters because it is an undesirable behaviour. The other kind of social desirability is impression management, which is someone's representation to be considered attractive or desirable by others (Baron & Byrne, 2003).

High scores of verbal aggressiveness for haters and non-haters could be related to previous research about cyberbullying. It was found that cyberbullying could start in middle school, but 30% of participants stated that they experienced cyberbullying for the first time when they were in college (Widhiarso, 2011). This happened not only for those who were full-time students but also for those who worked while studying in college.

The results of this study may be influenced by several factors which were considered to be the weaknesses of this research. The first factor is that the questionnaire did not have balanced numbers of statements for each form of verbal aggressiveness. This might explain the wide range of deviation in the scores. Further research could focus on determining an optimal number of items for each type of verbal aggression. One of the types that could be added is the use of nonverbal emblems, such as emoticons, emoji and memes, as an expression of verbal aggressiveness. The second factor was that all unfavourable items were excluded because they do not have a good level of validity. This factor is related to the first factor. Since verbal aggression was considered to be a unidimensional

scale, it is important to make sure that the participants' answers are consistent; this could be done, for example, by creating unfavourable items.

The third factor was the highly uneven number of participants with each characteristic, such as age and sex. Female participants always exceeded the male participants in both groups, in most cases by as much as 100% or more. Meanwhile, it was found that in general females were found to be more hostile toward men than men were towards other men (Kowalski et al., 2012). Moreover, women considering themselves as feminine were more likely to hold negative attitudes toward the other sex (Glick et al., 2004). This calls for further research regarding the sex of haters (or non-haters) and the sex of the artist or celebrity that they hate.

The last factor concerns the instrument itself. There is a disagreement between researchers of VAS's dimensionality: whether it has one dimension, which is verbal aggressiveness, or two dimensions, which are ego-enhancement and non-aggression (Maltby & Day, 2001). The two-dimensional form of VAS had only 15 items, and they did not represent the many forms of verbal aggression. That is why this study preferred to use the original version. Therefore, further research could explore both dimensions including forms of verbal aggression and revisit the instrument.

CONCLUSION

The study draws one important conclusion: that haters' verbal aggressiveness scores tend to be high. Thirty percent (30%) of them had high or very high levels of verbal aggressiveness, regardless of their self-identification as a hater. This means that almost one-third of the haters often write comments in abusive language in order to hurt others. Moreover, female respondents aged 19−21 had the highest scores of verbal aggressiveness. This might happen because most of the respondents who claimed to be haters were women, and they tend to induce their aggressiveness indirectly. Physical aggression costs are greater for women, compared to men, so they are more likely to engage in indirect aggression such as aggressive gossip (Campbell, 1999 as cited in McAndrew, 2014, p. 197). Gossip is used to socially ostracize rivals (Vaillancourt, 2013, as cited in McAndrew, 2014, p. 197), and highly attractive females, such as artists and celebrities, are at greater risk of victimization. High scores were also obtained by respondents who were new at being haters − around 1−3 months − and were in college. This might happen because most respondents were attending college, had wide access to the internet without parental supervision and were considered to be adults who can answer for their actions.

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CHAPTER 2

AN EMOTIONAL INTELLIGENCE (EI) BASIS ANALYSIS: DEVELOPING EI RUBRICS FOR PRESCHOOL CHILDREN

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ABSTRACT

Children who have a good level of emotional intelligence (EI) will be able to manage their lives in a more orderly and harmonious way. Good emotional control is a very important aspect of the well-being of individuals. In this study, the researcher wanted to carry out a basic analysis of children's EI by building preschool children's EI rubrics for the age group of four to six years. The study was conducted at a preschool in the Kuala Terengganu district, Malaysia involving 20 children. The research data were put through the evaluation process by five academic specialists in the field using the Cohen Kappa Consensus Coefficient Rating Scale formula. Qualitative data were analyzed using triangulation methods through qualitative categorization and thematic analysis. Quantitative data, on the other hand, were analyzed using the Rasch Model to see its validity and reliability. The implications of this study are expected to be a basic child EI evaluation focusing on EI development in education to produce a competent, skilled, creative and innovative generation.

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INTRODUCTION

Since the emergence of a book entitled 'Emotional Intelligence' (EI), introduced by Denial Goleman in 1995, many researchers have carried out extensive research on the subject. There are many instruments that have been developed to serve as a measure of EI. These include the Mayer-Salovey-Caruso EI Test (MSCEIT), the Multi-Factor Emotional Intelligence Scale (MEIS) and several other KE measures. However, according to a study conducted by Coskun, Oksuz and Yilmaz (2017), it was found that the existing EI instrument did not measure children's EI.

To measure EI through self-reporting assumes that participants in the sample have a deep and objective knowledge of their social and emotional skills and are consistent and genuine in assessing those skills (Goleman, 1995; Hogan et al., 2010). However, childhood is an age where metacognitive awareness, abstract reasoning, and objective thinking are not influenced by events. Children can only think in an egocentric way. They still cannot think inductively or deductively. Their concrete thinking and the use of expressive material can aid in the learning process.

Problem Statement

The rapidity of socialization in today's world shows that for individual success it is not enough to have a good level of intellectual intelligence. In fact, strength is also needed in terms of good EI growth. This has been proven by numerous studies on the development of EI that show that good EI levels in individuals can have a positive impact on academic achievement, good social relationships and confidence in self-efficacy (Goroshit & Hen, 2012).

In addition, every success, excellence, and happiness of life comes from individuals with good levels of emotional stability (MacCann et al., 2011). Emotional stability at an early age is essential for children to allow them to grow up and become individuals who can realize the aspirations of Malaysia through the 11th Malaysia Plan and the 2050 National Transformation of Being a Developed Nation in all respects, covering economic, political, social, spiritual, and psychological aspects, as well as culture.

However, indicators for determining the levels of EI in preschool children between the ages of four and six years are not yet known (Mayer & Salovey, 1990; Kotaman, 2016; Paavola, 2017). The teaching and application of emotional elements to preschool children under the

supervision of the Ministry of Education Malaysia (KPM) are also problematic. The lack of teaching aids or teaching and learning modules specifically for the purpose of applying emotional elements to children has caused teachers to have difficulty in teaching because there is no guidance in providing information or any available syllabus or systematic knowledge based on a syllabus to facilitate their teaching. Most of the teaching and learning processes of EI elements and other elements of social psychology are carried out only by talking and telling, which makes it difficult for children to grasp the information they receive and reduces their interest in learning and attention in the classroom.

In support of the Ministry of Education's goal of producing value-based citizens in accordance with the Malaysian Education Development Plan 2013–2025 (in the third shift), this study identifies that the assessment of children needs to be developed not only in the psychological aspect but also in the education aspect, focusing more on unity and fostering a closer understanding among children. This indicator is important as a standard benchmark for determining children's EI level. Here an analytical study to identify the basic elements of children EI was carried out empirically in order to determine the criteria in the construction of a child EI rubric at the preschool level.

Research Objectives

The research objectives were to identify aspects of EI, i.e. elements of how to identify the emotion; elements of how to understand the emotion; elements of how to control the emotion, and elements of how to use the emotion. This was carried out by:

1. Studies of EI at preschool age.
2. Defining EI indicators in the construction of EI rubrics at preschool age.

Research Questions

To achieve the objectives of the study, the research questions are as follows:

The study questions for objective 1 are:

a. What is the basic element for identifying emotions at the preschool level?
b. What are the basic elements for understanding the emotions at the preschool level?

c. What is the basic element of learning to control emotions at the preschool level?
d. What is the basic element of understanding the use of emotion at the preschool level?

The study question for objective 2 is how can EI at the preschool level be demonstrated during the learning process?

The study question for objective 3 is what are the indicators of EI in the construction of EI rubrics at preschool age?

THEORETICAL FRAMEWORK

To run the implementation of EI rubrics, we used a teaching and learning module to help develop preschoolers' EI. This was created using a number of theories including the Gagne Information Processing Theory, Bandura's Social Learning Theory and the Theory Zone of Proximal Development (ZPD).

The use of modules in teaching and learning can encourage children to understand faster, and information can be transmitted through many different activities. Teaching and learning processes will be more interesting with a variety of activities included in the module. Figure 1 shows the theories that have been used to produce the teaching and learning module to enhance preschoolers' EI.

The present research was conducted with children of preschool age. According to Piaget's Theory of Development, children at this stage have an egocentric nature that will make it difficult for them to distinguish between delusions and reality. These children usually can only think of specific examples, known as transductive thought. For them, every experience and all points of view of others are similar to what they themselves have.

Based on the Development of Erikson's Theory, children aged three to six years will do things that are not fully aligned with their age due to their ongoing cognitive and physical development. If children feel criticized while experiencing curiosity, it will cause them to feel guilty and they will not take initiative in doing an activity again. Thus, the tug of war between the motivation to do new things and the concerns preventing them from trying new things goes on. Adults need to promote well-meaning feelings in children. Therefore, such children need the help of adults or peers who are better able to guide and easily disclose learning. This method will involve the Zone of Proximal Development (ZPD) theory to support it.
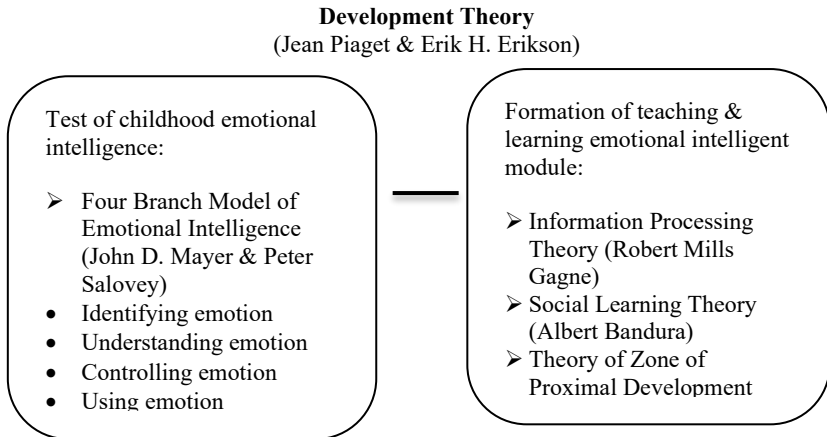
Development Theory
(Jean Piaget & Erik H. Erikson)

Test of childhood emotional intelligence:

➢ Four Branch Model of Emotional Intelligence (John D. Mayer & Peter Salovey)
• Identifying emotion
• Understanding emotion
• Controlling emotion
• Using emotion

Formation of teaching & learning emotional intelligent module:

➢ Information Processing Theory (Robert Mills Gagne)
➢ Social Learning Theory (Albert Bandura)
➢ Theory of Zone of Proximal Development

Fig. 1. Theoretical Framework

Learning difficulties experienced by students can be resolved by receiving modeled help from an adult or collaboration partner(s) (Vygotsky, 1997). Student performance can also be expanded to higher levels of potential. However, children also need an example to imitate in order to facilitate the learning process. This process has been explained through social learning theory by Albert Bandura [1]. Bandura suggested that children will learn a behavior change indirectly when observing the process and outcome of others' behavioral changes. This process is called *modeling*.

However, each stimulus received from the external environment that aims to simplify the process of learning will depend also on the degree of information processing received in the nervous system through the human senses such as hearing, sight, touch, action and so on. We used the information processing theory to explain how this process occurs. To facilitate new learning, people need old experiences that are stored in the long-term memory that relate to the new experiences. Therefore, to facilitate the new learning process, we conducted an attractive activity that was contained in the module. With an activity being undertaken plus guidance from teachers and friends, the teaching and learning process will be easier and will not be boring. Children can see and apply the material learned in lessons. This will enhance their understanding through the teaching and learning process.

In addition to facilitating teachers in the teaching and learning processes, the present study aimed to draw on the level of preschool

children's EI stages, i.e. to know the level of EI before and after the teaching and learning modules were run. The theory used to assess the children's EI was the Four Branch Model of EI. Through this model, Mayer and Salovey agree that individuals who are able to achieve the harmony of life are those who can master the four branches of EI, namely identifying emotion, understanding emotion, controlling emotion and using emotion. Accordingly, all theories and models involved were used to create the module revolving around these four aspects. So, in a way, Mayer and Salovey's model served as the spine of our teaching and learning module to promote the enhancement of preschool children's EI.

LITERATURE REVIEW

EI is defined as the ability to control, understand and use emotions as a guide for how we think and act. Emotions have a profound effect on every decision and action taken. Mayer and Salovey (1997) developed the concept of EI to explain the importance of emotion in life. They define EI as knowing emotion, using emotion, understanding emotion and controlling emotion.

The studies conducted by Jain (2015) and Gallagher and Vella (2008) found that there is a relationship between the level of EI and the well-being of an individual. For Bar (2012) and Mavroveli et al. (2007), individuals with good levels of EI can easily adapt to life and have good mental health.

Further, according to Dhani and Sharma (2017) and Whitman et al. (2009), individuals with mental abilities and positive personality traits are those with good levels of EI. Individuals with high levels of EI are able to reach good levels of academic achievement (Dhani & Sharma, 2017). Based on the findings of the study conducted by Shaheen and Shaheen (2016) and Tsaousis and Nikolaou (2002), an individual will have a healthy physical and psychological level if he has a good level of EI.

Therefore, EI is necessary and important in early childhood development. This is to prevent children from having any problems when they enter primary school. Acts such as quarreling and hurting others occur due to the unstable development of children's emotions. The development of EI is important to children, as this element is a rule, an encouragement to social behavior as well as positive learning behaviors (Fantuzzo et al., 2007; Nikolaou & Tsaousis, 2002).

Based on the results of studies conducted by Fantuzzo et al. (2007) and Raver and Knitzer (2002) EI is important and is fundamental to the success of a preschool environment that produces successful individuals.

Children with high levels of EI are able to develop in a learning environment where they are able to follow instructions, pay attention and listen, able to solve problems and be patient (Paavola, 2017). The importance of EI has also been highlighted in the National Philosophy of Education, which shows efforts to create balanced and harmonious physical, emotional, spiritual, intellectual and social people who are knowledgeable, capable, dignified, responsible and capable of achieving personal well-being.

The goals of the National Preschool Standard Curriculum have also set a target for developing the potential of four- to six-year-old children in physical, emotional, spiritual, intellectual and social aspects. Emotional elements are still being considered and appreciated by the Ministry of Education Malaysia (KPM), which aims to equip individuals with positive skills, beliefs and concepts so that they can succeed in the current environment and be prepared to address challenges and responsibilities in primary school.

Children's EI assessment should be carried out empirically in order to determine the criteria in the construction of a child EI rubric at the preschool level. The objective of this research will be to (1) identify aspects of EI (elements of identifying emotions, understanding emotions, controlling emotions and using emotions) at preschool age, (2) study EI at preschool age, and (3) define EI indicators in the construction of EI rubrics at preschool age.

METHODOLOGY

This study is still in progress. The main purpose of this study was to analyze the basic elements of children's EI at the ages of four to six years. The analysis of the basic elements of EI was performed to construct the preschoolers' EI rubrics. The research design that was used in this study was a qualitative design undertaken by conducting observations, interviews and expert evaluations to obtain valid and accurate findings. In addition, the researchers also used a quantitative design to obtain the validity and reliability of the built-in EI instrument. Participant observation sessions and semi-structured interviews were held at a preschool in the Kuala Terengganu area.

The study participants were selected randomly based on the purpose of sampling. Researchers selected 20 children (10 boys and 10 girls) consisting of preschoolers (aged four to six years). The selection of 20 study participants met the needs of the qualitative research in this study

which clearly showed that the study participants were able to provide information up to a saturation point to avoid any variant error.

The instruments used in this study were human-based, with researchers being the main tools. Researchers were also assisted by the instrumentation of the observation checklist and the interview checklist. This instrumentation is recognized for obtaining accurate and stable data while understanding the true phenomena of the study. This checklist was constructed based on the domain of the EI indicator which was modified to fit the research needs (Mayer, Salovey, & Cruso, 2002; Goleman, 1995).

Through the concept of a two-day workshop, 10 groups of two study participants were assigned the task of performing appropriate activities that could build their EI. The Child-Centered Game Development Approach was used as a reference to ensure that the activities were appropriate for the classroom environment.

Subsequently, through the data collected, an expert evaluation session was conducted in which five academic experts from all over Malaysia were appointed to evaluate the identified EI elements. Cohen's Kappa Coefficient was used as an analytical formula to determine the validity of the study findings.

Data analysis uses qualitative categorization and thematic analysis through triangulation and typology methods. Based on thematic analysis techniques, constructs that build on themes in instrumentation were extracted, based on the EI elements studied. Further, the researchers focused on thematic analysis of data obtained from observational checklists and interviews by more specific categories to determine the validity of the scale. The categories were given specific themes relevant to the research question. The data set went through a triangulation and expert verification process to answer the questions and meet the objectives of the study. Data analysis was also carried out quantitatively to obtain the reliability of the instrument built using Rasch Model analysis.

RESULTS AND DISCUSSION

Data were analyzed using Winsteps 3.68.2 and results are presented in several sections: Reliability and Separation Index, Item Polarity, Item Fit and Item Misfit, Residual Principal Component Analysis (PCA) and the last one the Result of Distillation.

The Rarsch Dichotomous Model was used to measure Malaysian children's EI using the adapted version of the Sullivan EI Scale for Children as the scale for the items was dichotomous ('yes' or 'no').