Relationship of Emotional Intelligence and Academic Achievement of Kuala Kangsar Vocational College(KVKK) Students

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Abstract. *The purpose of this study was to determine the relationship and differences of Emotional Intelligence (EI) with academic achievement of Vocational College students using Schutte Emotional Intelligence Scale (1998). Hence, this study was conducted among 269 students in Vocational College of Kuala Kangsar. A set of questionnaires was distributed as research instrument. Next, the data was analyzed using IBM SPSS statistical software version 21.Meanwhile, inference statistic such as Independent Sample t-Test, One Way ANOVA and Pearson Coefficient Correlation was used to test hypotheses. The result indicated that level of Emotional Intelligence among students was high and there was a significant relationship between Emotional Intelligence and academic achievement. The Pearson Correlation test results also show that there is a significant positive relationship between emotional intelligence and academic achievement of students at Kuala Kangsar Vocational College. The implications of this study make it clear that emotional intelligence needs to be taught as a cognitive domain and cannot be allowed to develop without guidance. All parties need to pay serious attention to guiding and educating them to manage their feelings or emotions and to develop a positive self-concept.*

1. Introduction

Emotional Intelligence or the abbreviation EI is defined as the ability of a person to process emotional information to enhance cognitive activity and facilitate social functioning (Rivers, Brackett, Salovey, & Mayer, 2007). Meanwhile, Reiff et al. (2001) defined emotional intelligence as an optimistic, flexible, realistic and successful problem-solving and stress-management approach without losing control. Weissenger (2000) defines emotional intelligence as intentionally using emotion to shape behavior and thinking toward achieving a positive goal. According to Goleman (1998) emotional intelligence is a person's ability to understand one's own feelings and use them to make effective decisions in daily life. Bar-On (1997) defines an emotion-related ability and social knowledge that influence one's ability to effectively cope with environmental challenges.

Other than that, emotional intelligence can also be categorized into five main dimensions namely self-awareness, self-management, self-motivation, empathy, and effective relationship management (Salovey & Mayer, 1990).The dimension of self-awareness refers to the ability to recognize and perceive emotions or feelings that exist and are occurring within oneself. The dimension of self-esteem refers to the skill of managing emotions and the formation of concepts or self-esteem.

Whereas the self-motivated dimension refers to the ability to control and motivate negative emotions and the fifth dimension is to recognize others 'emotions or empathy, it refers to the ability to recognize and understand others' feelings. Also, the dimension of relationship management refers to the skills of developing relationships or friendships with others, and communication skills.

On top of that, academic achievement refers to student achievement in a test or examination. The points earned will be compared to the teacher's stated goals. The higher the score obtained the closer the student is to the level of excellence (Mohamed, 2005).According to Yahaya et al. (2007), student academic achievement is related to an individual's level of excellence or the extent to which an individual is able to master the knowledge learned based on the highest points that can be collected, which is visible and measurable. Walsh-Portillo (2011), on the other hand, noted academic achievement when a student attained at least a minimum average CGPA of 2.0 grade C, based on a grade-4.0 grade of A. In this study, students' academic achievement refers to the assessment scores of the final semester of 1st semester students of Kuala Kangsar Vocational College.

Therefore, it is hoped that this study will help the management of Kuala Kangsar Vocational College and students in understanding the importance of emotional intelligence and apply it in the process of learning and teaching towards excellent academic achievement.

2. Literature Review

Emotional terms are easy to understand but difficult to define. Many philosophers, psychologists and scientists are trying to get the right idea (De Kok, 2013). The basic word emotion is movere derived from the Latin verb (Childre and Martin, 1999) which means move plus the prefix "e" to denote moving away (Fletcher, 2007). In addition, emotions are said to be derived from the French word *émouvoir* which means to arouse (Merriam-Webster, 2004).

According to Goleman (2007), emotions are essentially the impulse to act, the immediate plan to overcome problems that are gradually implanted, and emotions as well as special feelings and thoughts, a biological state, and a psychological as well as a network of tendencies. He goes on to describe several categories of emotion that are considered primary or instinctive: anger, sadness, fear, fun, love, excitement, frustration, and shame (Goleman, 1995).

However, Ekman and Friesen (1989) state that there are six basic emotions (happy, sad, angry, frustrated, and excited) that exist across all cultures in the world and can be expressed in the form of universal facial expressions.

Abdul Hamid (2003) defines emotion as a characteristic of the human soul which exemplifies the strong feelings that arise from one's psychology and that emotions occur naturally depending on the situation. Whereas Mohamed (1992) defines emotion as a condition experienced by humans that involves several changes in the physiological and psychological processes.

Husin (2010) has divided the meaning of emotion into three definitions: emotion is a very personal and subjective feeling. In many ways, the emotions we feel in ourselves seem to be mixed with a variety of circumstances. Emotion is a state of psychological awakening that exhibits automatic expression and response. Emotional state like this involves a certain reaction of the body. It involves organs such as the heart and stomach. Emotions are actions that are usually involved in self-defense or assault activities that are carried out in response to a threat.

Emotions are related to the feelings one experiences and emotions are present in everyone. Emotions are a source of information because they contain a variety of mental statements that are either fun or painful. Changes in emotions are indicated by changes in biological systems such as face (non-verbal), voice and so on. Thus, emotions can be expressed in the form of feelings of anger, sadness, fear, pleasure, love, shock, hurt, shame and so on.

It can be concluded that emotion is a subjective phenomenon that contains unique information. It can influence one's sociological and psychological experiences through thoughts, actions, and feelings.

Since its introduction in Goleman in 1995, emotional intelligence has gained a lot of attention in the public and academia. This is because, there is support from studies that show the importance of emotional intelligence either in a career or in private life.

Studies on how the brain processes information show that one is only paying attention to things that are emotionally meaningful (Le Doux, 1998). In a process of learning, to remember it, and to change the impact of it, learning must be interesting, enjoyable, and personal (Department of Education & Skills, 2007).One needs emotions to think clearly, to prioritize, to plan, and to apply values to different outcomes in order to make decisions, if not all decisions seem equitable and ultimately meaningless. Therefore, rationality and emotion are inseparable (Damasio, 2000). Six Seconds (2005) states that emotional intelligence can enhance achievement motivation, happiness, optimism, motivation, and goals. Therefore, emotional health is the basis for more effective learning.

Elias, Zinns, Weisberg, Frey, Greenberg, Hanes, Kessler, Schwabb-Stone & Shiver (1997) found that schools that run students' emotional skills programs, decreased discipline problems and improved academic achievement. Students with good emotional intelligence can manage and express emotional and social aspects of managing their learning, building relationships, and solving problems effectively.

Previous studies have shown that there are types of findings that have found significant and no relationship between emotional intelligence and academic achievement.The findings of Elias (2013) study of 376 fourth-grade students in five schools around Johor Bahru district showed that there was a positive and very weak relationship. This study uses the USM Emotional Quotient Inventory (USMEQ-i).

Chan & Rodziah's (2012) study of 100 students at SMK Jelawat, Bachok, Kelantan found that all emotional intelligence competencies had a moderate relationship with student academic achievement.The qualitative study conducted by Minhat and Hashim (2012) also shows that there is a relationship of emotional intelligence to academic achievement. The study involved the perception of Technical and Vocational teachers, Segamat National Secondary School in improving students' emotional intelligence. Findings through in-depth interviews with 5 life skills subject teachers found that students in the middle class had stable emotional intelligence and were ready to learn. On the other hand, students in the lower classes have less stable emotional intelligence and are more likely to cause problems. These differences in intelligence among different classes affect their results of the Lower Secondary Assessment (PMR) exam.

The study of emotional intelligence on mathematical achievement was conducted by Festus (2012) who found that there is little positive relationship between academic intelligence and academic achievement. A study of 1160 high school students in Abuja, Nigeria using the EQ-I (Emotional Quotient Inventory) and MAT (Mathematic Academic Achievement) instruments. Ngadinan's (2011) study of 200 high school students in Skudai, Johor found that there was a weak and significant inverse relationship (r = -0.11) between emotional intelligence and academic achievement.

3. Methodology

In this study, the researchers wanted to look at the level of emotional intelligence of students and try to compare emotional and the achievement of students at Kuala Kangsar Vocational College. All data obtained and collected using questionnaire form distributed to respondents.The questionnaire developed consisted of two sections, profile of respondents including items from the Schutte Emotional Intelligence Scale (1998).

The self-assessment questionnaire is used as an instrument to identify the emotional intelligence level of the respondents. The questionnaire was developed considering the dimensions of emotional intelligence involved in recognizing personal emotions, managing personal emotions, motivating negative emotions, recognizing others' emotions (empathy) and controlling relationships.

The likert-scale questionnaires ranging from 1 (strongly disagree) to 4 (strongly agree) were developed based on the Schutte Emotional Intelligence Scale, (SEIS) and the mean interpretation range adapted from the Emotional Intelligence Inventory (USMEQ-i) by Yusoff et al., (2010).

Next, the obtained data were analyzed using IBM SPSS software version 21. Prior to computation, this data was manually reviewed before the IBM SPSS version 21 statistical software was used to analyze the items in the questionnaire to obtain validity of the questionnaire construct. The use of IBM SPSS version 21 statistical software was selected in this study because, SPSS can perform complex statistical data and process (Agusyana, 2012) and produce accurate and error-free calculations (Conting, 2004).

The total population in this study was 507 students consisting of students from Kuala Kangsar Vocational College. However, only the second-year students of the 2013 session with a total of 269 students were used as respondents for this study. Whereas the sample is intended to be selected because the researcher wants to select the sample to meet the needs and objectives of the study. Table 1 shows the number of second-year students by their courses.

Table 1: The Number of Second-Year Students by Courses

Course	Number of Students
Business Management	18
Cosmetology	27
Fashion	25
Child Care	34
Bakery & Pastry	49
Culinary Arts	59
Electrical Technology	31
Automotive Engineering Technology	30
Total	269

The respondents were then divided into three areas of study: business, technology, and hospitality. The formation of the field of study is in accordance with the Technical and Vocational Education Transformation Strategy Plan issued by the Technical and Vocational Education Division (BPTV), Ministry of Higher Education of Malaysia. Table2 shows the number of respondents according to technology, hospitality, and business areas.

Table 2: Number of respondents by field of study

Field of study	Respondents
Technology	61
Hospitality	190
Business	18
Total	269

4. Results

This section presents the findings related to emotional intelligence level and the academic achievement of the respondents as contained in the questionnaire form. It is also providing the findings related to the mean score analysis used to identify the overall level of emotional intelligence and its dimensions. Free Sample T-test and One-Way Test were used to analyze the first and second research questions. Pearson's correlation coefficient test, however, analyzes the final research question.

4.1   Data distribution testing

One of the basic requirements for inference statistics is to test whether the data is collected from a normal scattered sample or not. In this study, data normalization was determined using Skewness and Kurtosis statistics. According to Chua (2010), data distribution is normalized when both Skewness and Kurtosis values are within ± 1.96. In addition, Field (2009) states that for large samples (typically 30 or more), sample distribution can be considered normal. Therefore, with a large sample size of 226 respondents, it can be assumed that the data distribution is normal. Table 3 below shows the results of the normality test for items of emotional intelligence by dimension. The results of the normality test showed that all dimensions ranged between -1.96 and +1.96 including the value of Kurtosis and overall emotional intelligence.

Table 3: Normalization of Emotional Intelligence Items by Dimensions

Dimension	Skewness	Kurtosis
Motivate negative emotions	0.046	0.218
Know your emotions	0.077	0.009
Take care of your emotions	0.055	0.258
Control the relationship	0.395	0.235
Recognize others' emotions (empathy)	0.056	0.372
Overall (Emotional Intelligence)	**0.053**	**0.049**

4.2   Inference analysis results

The inferential analysis was used to answer the research question which is:

Research Question: Is there a significant relationship between emotional intelligence and academic achievement of students at Kuala Kangsar Vocational College.

Hypothesis: There was no significant relationship between emotional intelligence and academic achievement of Kuala Kangsar Vocational College students.

Pearson correlation coefficient analysis was used to examine the relationship between dependentvariables, emotional intelligence according to dimensions and overall, with independent variables, academic achievement.there a significant relationship between intelligenceemotion with academic achievement of students at Kuala Kangsar Vocational College.

Table 4 shows the relationship between domain emotional intelligence to academic achievement. In the questionnaire used as the Schutte Emotional Intelligence Scale, SEIS (1998) identified five dimensions namely self-awareness, self-management, motivating negative emotions, recognizing others' emotions, and controlling relationships.

Table 4: Results of Pearson Correlation Analysis of Emotions by Dimensions of Academic Achievement

Emotional Intelligence Dimensions	Academic Achievement		Status
	Pearson Correlation coefficient	Significant (2-side)	
Motivating Self Emotion	0.173**	.009	Significant
Getting to Know the Emotions	0.131*	.049	Significant
Managing Emotions	0.085	.204	Not Significant
Recognizing Others' Emotions	0.082	.219	Not Significant
Operating Relationships	0.062	.356	Not Significant

** Significant correlation at p <0.01 (2-sided)
  * Significant correlation at p <0.05 (2-sided)

Findings of these five dimensions with the highest Pearson correlation coefficient r = 0.173 at p = .009 (p <.01) showed that there was a low relationship between self-motivation and academic achievement. Whereas the correlation between dimensions of self-esteem and academic achievement was r = 0.131 at p = .049 (p <.05) there was a low correlation. Both dimension correlation values motivate self-esteem and self-esteem indicate positive relationships. Positive Pearson correlation coefficient readings indicate that higher dimensions motivate self-esteem and higher self-awareness dimensions of student academic achievement.The low correlation readings were the dimensions of self-emotion control r = 0.085 with p = .204 (p> .05), the self-esteem dimensions of r = 0.082 with p = .219 (p> .05) and the dimensions of relationship control which is r = 0.062 with a value of p = .356 (p> .05). All these dimensions show no significant relationship and positive relationship.

Overall, out of the five dimensions of emotional intelligence, only two dimensions showed a significant positive relationship, namely the dimensions that motivate self-esteem and self-awareness of academic achievement. On the other hand, the three-dimensional balance of managing one's emotions, recognizing others 'emotions and controlling relationships indicates that there is no significant relationship with students' academic achievement.Table 5 shows the results of the Pearson correlation coefficient for Emotional Intelligence over Academic Achievement.

Table 5: Results of Pearson's Correlation Analysis of Emotional Intelligence on Academic Achievement

Statement	Academic Achievement		Status
	Pearson Correlation coefficient	Significant (2-side)	
Emotional Intelligence (5 dimensions)	0.142	.033*	Significant

* Significant correlation at p <0.05 (2-sided)

For overall emotional intelligence on academic achievement, Table 5 also depicts a significant positive relationship between emotional intelligence and student academic achievement with a value of r = 0.142 which is p <.05. The correlation is at a very low rate. Thus, the hypothesis was rejected because of its relationship to emotional intelligence. This means that the student's academic achievement is closely related to the student's emotional intelligence.

5. Conclusion

Based on the findings of the above study, it shows that there is a significant positive relationship between emotional intelligence and academic achievement of students at Kuala Kangsar Vocational College. However, the relationship between these two variables is very weak. Thus, it is evident that emotional intelligence has a bearing on students' academic achievement. This shows that students need emotional intelligence support to achieve good academic achievement. It is found that students with good emotional intelligence are also associated with one's well-being. This is because students can control emotions and not act recklessly. They are more at ease when doing assignments or workshops or the tests they provide during the teaching and learning process. The findings also show that the mean dimension score for motivating negative emotions is highest compared to other dimensions of emotional intelligence. It may be due to the motivation skills that students have. The ability to control negative emotions such as rage, anger, fear, and despair can stimulate students' lives to excel and have a clear direction in dealing with life at Vocational College. Motivational factors are also important in boosting student morale over the long term and determining their success. Involved parties such as parents, teachers are responsible for educating and nurturing the element of emotional intelligence for these vocational students. The implications of this study make it clear that emotional intelligence needs to be taught as a cognitive domain and cannot be allowed to develop without guidance. All parties need to pay serious attention to guiding and educating them in managing their feelings or emotions and developing positive self-concept.

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