Emotional Intelligence: Its Relationship with Communication and Information Technology Skills

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Abstract

Emotional intelligence comprises of several important elements which enhance the ability of several key competencies. This study attempts to examine the relationship between emotional intelligence, communication skills and information technology skills among university students in Malaysia. Three thousand one hundred and one final year students from 10 public universities in Malaysia were randomly chosen as samples for this study. The Bar-On Emotional Quotient: Short (EQ-i:S) by Bar-On has been utilized for the purpose of measuring emotional intelligence. An inventory by Moreale, Spitzberg and Barga was used to measure communication skills while the Computer Efficacy Scale by Murphy, Coover and Owen was utilised to measure skills in information technology. Results showed that there were positive significant relationship between emotional intelligence and both communication and information technology skills. This study implicates that students with high emotional intelligence will have better command in communication skills and information technology skills.

Keywords: emotional intelligence, communication, information technology

1. Introduction

Emotional intelligence is an important element to determine student's skills and competencies in communication and information technology. Generally, the single entity of general intelligence (IQ) is not a guarantee for individual success in life. Psychologists have noted that general intelligence alone only contribute around 20 percent of individual success in life while the remaining 80 percent comes from other factors such as emotional intelligence (Goleman, 1995). It is said that individuals possess some abilities in using emotions in order to enhance thought effectively than others (Rastegar & Karami, 2013). Thus, emotional intelligence literature has grown since then (Mayer & Caruso, 2008; Matthews, Roberts, & Zeidner, 2004; Subramanyam, 2012).

In discussing students' skills and competencies, emotional factors must be taken into consideration. A study on 448 college students in United States of America found that there were differences in terms of students' performance between those who have high and low level of emotional intelligence. Students with higher emotional intelligence have better academic performance compared to those with lower emotional intelligence (Swart in Bar-On, 1997; Stump, Husman, & Corby, 2014).

Emotional intelligence is the intellectual sources need by individual to build other skills and competencies (Butcher & Harvey, 1998). Dulewiez and Higgs (2000) emphasized the importance of handling emotions as mechanisms in handling success in life. Academic performance success in life is related to students' role in higher learning institution. Students have to prepare themselves after graduating for the purpose of entering the job market. The question on how will they be able to master the communication and information technology skills depend on their level of emotional intelligence. In emotional intelligence, the important qualities which should be taken into consideration to improve skills in communication and information technology can be related to self-conscious, self-motivation, impulse control, humanistic skills and mood management. Therefore, the

relationship between students' emotional intelligence and skills in communication and information technology are important factors that need to be studied.

In general, emotional intelligence is the use of judgement and thoughts in the process of determining or showing the exact emotions (Elder, 1997). It involves individual adjustment with the present situations. Planalp and Fitness (1999) stressed that emotional intelligence actually involves the acquiring and monitoring of emotional knowledge and using the knowledge in an appropriate way.

Hutmacher (1996) defined communication skills as an ability to understand and speak more than one language and also the ability to understand what is being spoken and aware of the communication sources. This definition was supported by Harmer (1983) and Henrici (1986). Harmer (1983) stated that communication skills is the ability to exchange information based on knowledge while Henrici (1986) admitted that communication skills is the ability to use language in a specific way needed by other parties. Both the sources and the other parties understand each other and the linguistic activities are being perceived as motive, goal and channel choice. However, one weakness of this definition is that it stressed more on linguistic factor rather than communication skills alone (Chreptaviciene, 1997).

Although communication skills is a modern terms (Mc Croskey, 1984), the history actually goes way back since communication skills has been acknowledged thousands of years ago. The oldest book on communication skills can be traced back 5000 years ago and its content was on advice on how to communicate effectively.

In the era of communication and information technology, knowledge and expertise in handling information technology (IT) is a priority. Knowledge and experience in using computers are important aspects that influence individual's future. The experience of handling computers and information technology skills is seen as important needs to graduates who strive for career excellence. Most jobs need graduates who can handle computers as information technology component and is in line with the present needs in the IT era. Employers put information technology as important criteria in personnel selection and recruitment process.

Communication and information technology skills are part of human capital variable needed for students to survive in the job market after graduating. Muchhal (2014) stressed that human capital variable consists of 4 components namely collective capability, intellectual agility, attitude and competence levels. These components form a distinct human capital variable criterion.

For the purpose of this study, information technology skills are seen in terms of computer usage since it is an important component of information technology in public universities and job organizations. This study also focused on the usage of computers since information technology skills has been found to be related to the problems of handling and using computers among students.

1.1 Purpose of the Research

This paper discusses a study done to examine the relationship between emotional intelligence, communication skills and information technology skills among public university students in Malaysia. It also discusses the relationship between emotional intelligence and communication aspects (interpersonal communication, group communication and public speaking skills) through perception of motivation, knowledge and skills.

2. Literature Review

Emotional intelligence is discussed in the field of psychology, counseling, education and other fields. It is also discussed in management and leadership activities. Managing employees' feelings accordingly will ensure excellence managerial skills. Employees' feeling and emotions will influence and determine their work performance. If they are happy, work performance will increase. On the other hand, work performance will decrease if they are not happy or sad. Therefore, in the work sector, employers are looking for potential candidates who are not only good on IQs but also have a good level of emotional intelligence.

Goleman (1995) noted that human has two rational minds that helps us think and has feelings as well. Both help us to store knowledge, influence feedback and behaviour, action and human thinking. Therefore, emotional intelligence is something that can be learned and practiced (Freshwater & Stickley, 2004). A study by Ahmad Marzuki et al. (2012) found that emotional intelligence may be influenced by a number of demographic factors that shaped up a student's learning and practiced environment. This will enable them to succeed in future work life.

While information is important in community for the application of ICT in everyday life, communication skills becomes imperative since modern world is understood through the process of communication and information (Chreptavieiene, 1997). In this context, the adult model of competencies should include ICT components. These

are linguistic, socio-linguistic, strategic, socio-cultural, social and ICT skills. There are also studies on communication with computers as medium and its relations to language. Among them are studies on technology use on educational aspects which are communication role through computer in learning foreign language. This study focused on learning performance and confidence between subjects who use and do not use electronic mail, subjects' and trainers' view on the use of electronic mail in learning instruction and problems encounter in using electronic mail. It was found that there were no differences in terms of reading, writing and speaking between two groups of subjects (using and not using electronic mail). They were also no differences in terms of self confident towards the learning process between these two groups.

3. Method

3.1 Research Design

A quantitative and cross sectional design study was employed. Questionnaires were distributed o students from 10 public universities as the main data gathering method.

3.2 Population and Sample

The population consisted of students from 10 public universities in Malaysia. The universities involved in this study were Universiti Islam Antarabangsa Malaysia (UIAM), Universiti Malaya (UM), Universiti Putra Malaysia (UPM), Universiti Teknologi Malaysia (UTM), Universiti Teknologi MARA (UiTM), Universiti Sains Malaysia (USM), Universiti Malaysia Sarawak (UNIMAS), Universiti Malaysia Sabah (UMS) and Universiti Utara Malaysia (UUM).

A total of 400 final semester students were chosen as respondents from each university. The overall total of respondents was 4000. However, the amount of questionnaires returned was only 3250. Out of this number, 140 sets of questionnaire had to be rejected for non-completion. The final total of questionnaires used were 3101 (769 male, 2290 female and 42 did not specify their gender). Stratified random sampling technique was used in this study. Stratifications were based on gender (male and female), race (Malays or Non-Malays) and field of study (Sciences, Arts or Technical).

3.3 Instruments

3.3.1 Emotional Intelligence

The Emotional Quotient: Short (EQ-i:S) Inventory by Bar-On (1997) was utilized to measure emotional intelligence. This is the short version of the original version (EQ-i) which consists of 133 items. The inventory consisted of 51 items that include 5 main scales and one control scale. The scales were Interpersonal Scale (consists of 10 items), Intrapersonal Scale (consists of 10 items), Stress Management Scale (consists of 8 items), Adjustment Scale (consists of 7 items), General Mood Scale (consists of 10 items) and Positive Impression Scale-Contol Scale (consists of 6 items). Items were scored according to Likert Scale point from 1 = not true of me, to, 5 = true of me. High scores indicate high emotional intelligence level while low scores indicate low emotional intelligence level.

3.3.2 Communication Skills

Communication skills were measured using scales by Moreale, Spitzberg and Barge (2001). This instrument was divided into three aspects to measure interpersonal communication skills (6 items), group communication skills (7 items) and public speaking skills (6 items). Each aspect was measured based on three components which were motivation, knowledge and skills. Two items were dropped since it was not appropriate with the Malaysian community culture. The items were *Discussing Safe Sex with Someone You are Considering Sexual Relation With* (interpersonal communication) and *Making an Elaborate Toast to a Large, Formal Wedding Party* (public speaking). Likert type scoring (1 to 4) was employed for this instrument. High scores indicate high communications skills while low scores indicate low communications skills.

3.3.3 Information Technology Skills

Information technology skills were measured based on instrument by Murphy, Coover and Owen (1989) Computer Self-Efficacy Scale. This scale measured the confidence level of respondents based on theory perceptions and ability of using and handling computers. There were 35 items measuring computer skills and consisted of items on beginner, advanced and internet related statements. The 5 point Likert type scale point were employed (1=low confident, to, 5=high confident). High scores indicate high confident and ability signifying high skills while low scores indicate low confident and ability signifying low skills.

3.4 Data Analysis

Data was gathered and analyzed using The Statistical Package for the Social Sciences (SPSS). Pearson Product Moment Correlation analysis was employed to examine the degree of relationship between emotional intelligence, communication skills and information technology skills.

4. Results and Discussion

4.1 Relationship between Emotional Intelligence, Communication Skills and Information Technology Skills

Bivariate Pearson correlation analysis was performed and all factors were found to be positively significant (Table 1).

Table 1. Relationship between emotional intelligence, communication skills and information technology skills

Variables	(1)	(2)	(3)
(1) Emotional Intelligence	-	.379**	.266**
(2) Communication Skills	-	-	.400**
(3) Information Technology Skills	-	-	-

** $p < 0.01$

Analysis on the relationship between emotional intelligence and communication skills showed a weak positive but significant result ($r = 0.379$). It indicates that the better the emotional intelligence of students, the higher the communication skills they have. On the other hand, the lower the emotional intelligence level, skills on communication will also decrease.

In terms of relations between emotional intelligence and information technology skills, similar result was found. The relationship was positively significant but weak ($r = 0.266$). Again, it shows that the higher the emotional intelligence level of students, the better the information technology skills they have. On the contrary, if their emotional intelligence level is low, their information technology skills will also be low.

Apart from the above, result also indicates a positive relationship between communication skills and information technology skills. The relationship was positive but weak ($r = 0.400$). The higher the communication skills of students, the better their skills in information technology. Similarly, if their communication skills are low, their information technology skills will also be low.

The general analysis on correlations between all factors (emotional intelligence, communication skills and information technology skills) showed that they were related to each other. Public university students who have high emotional intelligence level will also have high communication skills and vice versa. This finding indicates the importance of having high emotional intelligence level in the life of university students. This is in line with the view of Butcher and Harvey (1998) regarding the intellectual source (emotional intelligence) needed by individual to build other skills and competencies. In this context, it was the communication skills. This finding was also supported by a study from Patil and Reiner (2004). Their study found that emotional intelligence facilitates the communication process especially in group work. In general, the finding proofs that emotional intelligence is related to communication skills among university students.

Based on this finding, it can be concluded that emotional intelligence enabled students to fully understand the complex human interaction and helps them handle their own feelings and other people feelings successfully (Abisamra, 2000). Therefore, elements that may improve the emotional intelligence level of students should be encouraged and taken into consideration in university curricular and co-curricular activities.

Emotional intelligence was also found to be related to information technology skills. This finding reflects that if the students' emotional intelligence levels are high, the higher will be their level of confident in information technology, signifying high skills. On the contrary, the lower the emotional intelligence level, the less confident they feel in their information technology skills. This shows that emotional intelligence has an effect on the information technology skills in terms of self-confident level in technological learning. This is in line with Bandura's Social Learning Theory (1977, 1997) in terms of self confident. The result indicates that emotional intelligence can contribute towards self confident level, in this case, the information technology skills. Similarly, if the self confident level is low, individual will act beyond their ability. The finding was supported by a study done by Schunk (1984), and Karsten and Roth (1989) that students may acquire self confident from physiological indicator such as stress before beginning their computer training. This can be alleviated through proper emotional intelligence control.

Communication skills were also found to be related to information technology skills. This finding showed that the higher the communication skills, the better the self confident of students in terms of information technology skills and vice versa. A study by Westmyer, Dicioccio and Rubin (1998) supported this finding regarding the choice of communication channel of respondents which is appropriate for delivering message. One of the elements was information channel through technology such as the use of electronic mail and internet chatting which is determine by communication ability of students. This is also in line with study done by Philips and Eisenberg (1996) and Willis (2001).

4.2 Relationship between Emotional Intelligence and Aspects in Communications Skills

Analysis was also performed to examine the relationship between emotional intelligence and all aspects of communications skills which are interpersonal communication, group communication and public speaking skills. In general, Pearson Correlations analysis results indicated that components of interpersonal communication, group communication and public speaking correlated significantly with emotional intelligence.

The results found that there were relationship between emotional intelligence and all components of interpersonal communication which were motivation, knowledge and skills (Table 2).

Table 2. Relationship between emotional intelligence and interpersonal communication components

Emotional Intelligence	r
Motivation	.298(**)
Knowledge	.276(**)
Skills	.280(**)

** $p < 0.01$

Analysis found that there were significant positive relationship between emotional intelligence and components in interpersonal communication which were motivation (r = 0.298), knowledge (r = 0.276) and skills (r = 0.280). The degree of relationship, however, is somehow weak. Nevertheless, this finding indicates that the higher the emotional intelligence of students, the higher and better will be their motivation, knowledge and skills of interpersonal communication. On the other hand, if the emotional intelligence level is low, their motivation, knowledge and skills of interpersonal communication will also be low.

In terms of the relationship between emotional intelligence and group communication components, results showed that there were significant correlations (Table 3).

Table 3. Relationship between emotional intelligence and group communication components

Emotional Intelligence	r
Motivation	.336(**)
Knowledge	.318(**)
Skills	.319(**)

** $p < 0.01$

The relationship on emotional intelligence and group communication motivation (r = 0.336), knowledge (r = 0.318) and skills (r = 0.319) were found to be positively correlated and significant but weak. However, the result pattern indicates that the higher the emotional intelligence level of students, the better and high will be their motivation, knowledge and skills in terms of group communication. Similarly, if their emotional intelligence level is low, the motivation, knowledge and skills will also be low in group communication.

Table 4 showed the results of correlational analysis between emotional intelligence and public speaking components in communication skills.

Table 4. Relationship between emotional intelligence and public speaking components

Emotional Intelligence	r
Motivation	.320**
Knowledge	.322**
Skills	.323**

** $p < 0.01$

Pearson correlations result shows that there were significant and positive correlations between emotional intelligence and public speaking in terms of motivation (r = 0.320), knowledge (r = 0.322) and skills (r = 0.323). Although the correlations were positive, the degrees of relationship were weak. However, the results indicate that students with high emotional intelligence will also have high motivation, knowledge and skills in public speaking. On the other hand, students with low emotional intelligence level will also have a low motivation, knowledge and skills for public speaking in communication skills.

The overall results on emotional intelligence and aspects of communication skills of students which are interpersonal communication, group communication and public speaking signify several implications. In general, emotional intelligence does have relationship with communication skills. It may also influence and affects communication. Emotional intelligence affects life and work skills of students and also facilitates communication in group. It also affects other fields that are related to communication such as learning language and cross cultural communication. This study suggests the importance of emotional intelligence with every aspect of students' communications skills. Motivation, knowledge and skills of interpersonal communication correlated positively with emotional intelligence. Similarly, emotional intelligence also correlated positively with motivation, knowledge and skills of group communication. Lastly, motivation, knowledge and skills of public speaking correlated positively with emotional intelligence.

The relationship between students' emotional intelligence and aspects of communications skills such as interpersonal communication, group communication and public speaking were in line with Goleman (1995) views that individual has two rational minds. One is used for thinking and the other for emotions and feelings. Both helps human to store information and translate it into communication response, feedback, actions and thinking. Therefore, the result indicates that emotional intelligence is related to all communication skills. It creates positive affects among students through the elements of motivation, knowledge and skills while communicating with others. Students need certain emotional intelligence capability to communicate interpersonally with professors and lecturers. Among colleagues, they have to communicate efficiently to deliver ideas and views during group work discussion in curricular and non-curricular activities. Lastly, presenting assignment in front of classes signify emotional intelligence elements that is related to public speaking skills.

A study by Rosenfeld and Berko (1990) found that communicational ability is important to achieve certain goals. In order to success, Littlejohn and Jabusch (1982) stated that the process of understanding communication refers to cognitive ability, feelings and message interpretation which indirectly involve emotional intelligence.

5. Conclusion and Recommendations

Emotional intelligence, communication skills and information technology skills are complementary components. They are sometimes perceived as important but not taken as needs when discussing graduates quality. Academic achievement is still the most important element and indicator of excellence. Consideration for balancing between academic performance and these competencies are not being taken seriously. Paper qualifications are everything compare to self asset which actually is the passport for success. The implication of all this is the birth and production of graduates who are excellence in academic but poor in emotional intelligence, communications skills and information technology skills.

Activities such as workshops on improving students' soft skills such as emotional intelligence skills, communication skills and information technology skills need to be integrated in co-curricular activities. Although the activities are sometimes run by universities and student bodies, the importance of these skills in relations to preparation towards entering job market should be stressed. Students need to be told and justify regarding why it is so important to have high level skills in these area.

Perhaps activities which may expose them to the real working world can be considered. These can be done in terms of having a workshop on employment interview which also stressed on why emotional intelligence is so important from the eyes of employers and organizations. Similarly, competencies in communication and information technology need to be practiced and understood by students through special workshops.

Conducive information technology facilities to facilitate learning and teaching should be upgraded. This includes giving special subsidy to public university students or perhaps special loan to assist them in buying personal computers.

Students are encouraged to be exposed to other competencies such as management, leadership and motivational skills can be held apart from academic activities. The balance between general intelligence (IQ) and emotional intelligence (EQ) in student learning process is the key to high level skills possess by them. A new paradigm shift should be taken where changes take place in terms of overall student quality. Make the students aware of

the importance of soft skills apart from academic excellence. This will enable them to survive in the real world when they graduated. In other words, public universities should bear the social responsibility of producing a more balanced and quality students.

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