

# EDUCATION

## The Impact of Emotional Intelligence on History Subject Achievement of Secondary School Students: Quasi Experimental

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### Abstract

The study investigated the impact of emotional intelligence on academic achievement of secondary school students in Kota Setar, Malaysia. The purpose of the study was to examine the relationship between emotional intelligence and academic achievement among secondary school students. A sample of 173 participants randomly selected from four secondary schools was used. The schools were randomly assigned to the two treatment conditions (with and without emotional intelligence activities module) and control group. Questionnaire and achievement test were employed to generate data for the study. Two research hypotheses were formulated to guide the study. The hypotheses were tested using descriptive statistical method, *split plot* ANOVA (SPANOVA). The study revealed that there is a positive relationship between emotional intelligence skills and academic achievement such that developing emotional intelligence skills of a student will lead to the enhancement of his/her academic achievement. The findings of this study may assist stakeholders in the education sector in developing a better understanding of the effects of emotional intelligence on the academic achievement of secondary school students.

Keyword: emotional intelligence, integrated, emotional intelligence module, academic achievement, history subject

### 1. Introduction

Concerns about the effect of emotional intelligence (EI) toward academic achievement is not new. Around 30 years ago there are a lot of studies about the emotional intelligence. Certain researchers reported that higher emotional intelligence level can supported the academic achievement. Their emotional intelligence levels, however were not associated with low academic performance (Jaeger & Eagan, 2007; Ferrando et al. 2011; MacCann et al. 2011; Opatye 2014). Two-third of those attaining a class have excellence result in their examination and prior high emotional intelligence scores were associated with achieving a good result. Compared with the norm, the students as a whole also had different achievement with difference teaching and learning technics (Chee-Huay dan Kee-Jiar, 2015; Dan, 2011; Hii and Fong, 2010).

Applying the psychological aspects of teaching media in integrating emotional intelligence is very important to produce effective teaching and learning theory. This is because teaching strategies or methods present in the design of learning in module which is call EIAM (Emotional Intelligence Integrating Activities Module) as a medium for teaching and learning was based on these theories. This statement is supported by Norila Md Salleh (2009) and Jones (2012) who stated that emotional intelligence integration into learning should be appropriate to the source, goal based learning and learning theories. According to Kashani, Azimi, & Vaziri, (2012) study defined that if emotional intelligence does not take into the theoretical foundations of learning it does not help to meet learning goal. The theoretical assumption of emotional intelligence being implied in academic performance is popularized by Goleman's EI theory, which highlights that one's learning and overall life success is determined by emotional regulation, especially through self-awareness, social-awareness, self-management and relationship

management.

## 1.1 Integrating Emotional Intelligence in Classroom

Integration of emotional intelligence is a method of social emotional learning into school (Pasi, 2001). Social Emotional Learning (SEL) is part of a holistic educational theory that assists human development as a whole, including intellect, emotion, physical, social, aesthetic and spiritual (Meaker, 2006 cited in Lindsay 2013, p.9). The SEL program has had many impacts on education including the impact on academic achievement, the influence on pro-social behavior and the problems, and is the best practice for the design and implementation of programs in education (Lindsay, 2013). However, education in Malaysia does not follow the social and emotional learning curriculum although it is embodied in its educational philosophy to provide holistic human development. Integration of emotional intelligence should be emphasized in education as well as emphasis on cognitive achievement. Cognitive achievement always correlated with the motivation and attitude students to the subject. However the literature on prediction of school achievement shows that the main non-cognitive predictors of academic performance (Morony et al. 2013; Stankov et al. 2012) are student-related measures, particularly psychological constructs that can be grouped under the label of self-beliefs. The findings reported in Stankov et al. (2012) suggest that confidence is an even better predictor of achievement than domain-specific. Non-cognitive predictors of academic performance related with attribution of students.

Attribution theory is cognitive theory of motivation which states that a relationship between students' beliefs with their achievement. From the Opatye, (2014) study, found that student' belief can cause success or failure in whatever they do. The ways these beliefs are internalised will influence students' academic achievement, expectation to success and self-concept. Attitude is inclination to gaining a skill and it is identified as individual characteristics that provide a background for accepting a positive subject or denying a negative one. According to Eagly and Chaiken (1998 cited in Opatye, 2014, p 240) study , an attitude can be defined as a positive or negative evaluation of people, objects, event, activities, ideas, or just about anything in student environment. There was debate about precise definitions about the attitude to evaluate the positive and negative about anything (Opatye, 2014). Opatye (2014) also give the opinion about his study that teachers should also discover the emotional intelligent, test anxiety and stress levels so as to reduce these psychological effects on subjects in school.

The divergent views concerning the role of EI in academic performance have important implications for the homological network of EI theory and educational practice (Opatye, 2014). On a theoretical level, elucidating the contribution of EI to students' academic achievement may inform our understanding of the extent to which emotion-related personality traits play a part in achieving important educational outcomes (MacCann et al., 2011).

In the content of learning through the module student will be guided to actively participate in the learning environment if space for problem solving is provided. According to the module when teachers give the activities about the emotional intelligence skills which was integrated with the historical syllabus this will drive student to collaborative and cooperative in the small group. This is because according to the theory of constructivism provides guidance and principles that should be considered when developing a module based learning environment. One most important set of guidelines is to provide authentic learning environment present in a meaningful learning context (David P. Ausubel, 1968).

## 1.2 Research

Objective of this study were to investigate the impact of emotional intelligence on academic achievement of secondary school students in Kota Setar, Malaysia. The purpose of the study was to examine the relationship between integrating emotional intelligence and academic achievement among secondary

school students. The research question were what the impact of emotional intelligence on academic achievement of secondary schools students and what the relationship between integrating emotional intelligence and academic achievement in History subject. The null hypothesis that create from the literature were there no significant differential between score mean pre-test and post-test among three group and second hypothesis was there no effective significant difference integrating emotional intelligence in History subject between experiment group.

## 2. Methodology

This study uses quasi-experimental design and it was conducted over a period of six weeks. The samples were Form 2 students in secondary school in Malaysia. Sample of 173 students individuals was selected using the opportunity or convenience sampling, among student from school which was had the average performance and achievement in SPM (*Sijil Pelajaran Malaysia*) for History subject. Only four school were chosen in this study from 11 schools listed in average performance. 82 students in experiments group with module, 45 students in experiments group with out module and 46 students in control group.

In this study, module was developed to integrate emotional intelligence (EI) using four core skills self-awareness, self-management, social awareness, and relationship management. These four skills are based upon the model created by Daniel Goleman. This model is a competency-based framework that is intuitive and easy to apply in real-world settings, which makes the elements with education world. The first two skills focus on person, and the third and fourth skill focus on his/her contact with others. The assessment provides an elements from EI to blend with syllabus from History subject and the score as well as a score in each of the emotional intelligence factors.

The achievement performance question was administered and academic performance was correlated with mark History subject in the pre-test and post-test. The intervention was implements in six weeks. It was good period in quasi experimental study (Creswell, J. W, 2012).

This paper uses only SPANOVA analysis procedures to quantitatively synthesize the results of empirical studies, on the relationship between integrating EI and academic performance. The focus of this article is on not only assessing the validity of integrating EI for predicting academic performance but also integrating emotional intelligence elements to students for their individual life and their social life.

## 3. Results

Levene's test value not significant shows that the variance of dependent variables in the study population is the same across all three groups of respondents of the study. Therefore the study data fulfilled the similarity of the SPANOVA test variance.

Table 1: Levene's Test of Equality of Error Variances<sup>a</sup>

	F	df1	df2	Sig.
Pre mark	.164	2	170	.849
Post mark	2.174	2	170	.117

Tests the null hypothesis that the error variance of the dependent variable is equal across groups.

The findings refer to Table 2 which shows the mean score from the pre-test of Historical Achievement on the EI<sub>A</sub>, EI<sub>B</sub> and NT groups each earning 48.41, 27.60 and 37.00 respectively. Nevertheless, the mean score of the EI<sub>A</sub> group achievement showed the highest score and thus showed that the group was made up of clever pupils.

The result of the comparison of the pair shows that after controlling the type 1 error by using the

*Bonferroni* method, the mean score for the post test history is significantly higher than the pre-test for the treatment group with module (the mean value difference in historical achievement score 1.10 for all the group).

Table 2: Mean and standard deviation score within three group

	Group	Mean	Standard Dev	N
Pre mark	El <sub>A</sub> (with module)	41.87	24.10	82
	El <sub>B</sub> (without module)	34.28	23.18	45
	NT (normal teaching)	34.33	22.65	46
	Total	37.89	23.65	173
Post mark	El <sub>A</sub> (with module)	47.52	25.10	82
	El <sub>B</sub> (without module)	33.80	21.02	45
	NT (normal teaching)	28.88	20.35	46
	Total	38.99	24.22	173

The results of the *Sphericity Mauchly* test in the coordination of the df data and the F value cannot use in this study because p value was significant. After adjustment, *Huynh-Feldt* result used and value indicates that there was a major effect of the pre-post independent variables. The pre-test and post-test interactions shows [F 1.00, 170.00 =.002, p<.05] was no significant also the pre-post\*group interactions [F 2.00, 170.00 =1.893, p<.05] was not significant. This study accept the null hypothesis and defined that emotional intelligence have no interaction with History Achievement in all the group have no associated with the emotional intelligence. But all the group showed the increasing in score mean between pre-test and post-test.

Table 3: Tests of within –subject effects

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
prepost	Huynh-Feldt .751	1.000	1.501	.002	.969
prepost * GROUP	Huynh-Feldt 1889.423	2.000	1889.423	1.893	.154
Error(prepost)	Huynh-Feldt 84818.282	170.000	997.862		

Graph shows the effect of historical score, no interactions between treatment groups and control groups across both tests where the mean value of the historical score for the treatment group using the module increases linearly from the test to the next, while the historical score for the control group also increases. The group from treatment without module had a linear line and the control group decrease post-test lower than pre-test.

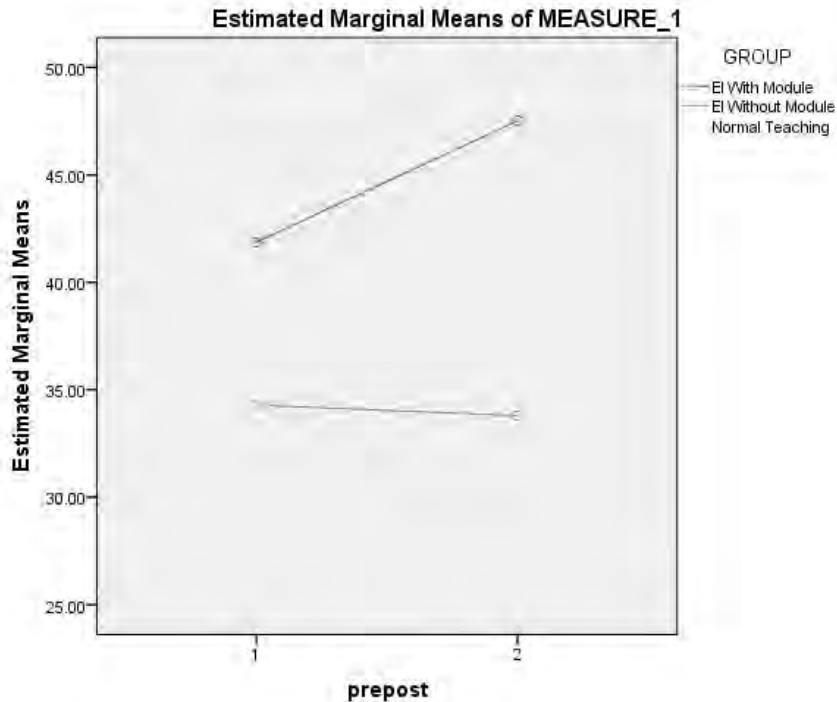


Figure 1: Graph pre and post with every group

The second hypothesis was there no effective significant difference integrating emotional intelligence in History subject between experiment groups although the results are almost identical, that all groups have increased performance but the group using the emotional intelligence integration module increases better than other groups. Finally, and relatedly, results obtained from the analysis may serve to clarify and refine the theoretical position concerning the role of EI in academic performance. Indeed, there has been little concerted effort in the psychological literature to specify the theoretical mechanisms linking EI and academic performance, with even less attention given to the conditions under which EI may be more strongly associated with academic performance.

### 3. Conclusion

Findings also showed that there was no significant relationship between integrating emotional intelligence and academic achievement ( $p > 0.05$ ), and there was significance difference in academic achievement of participants based on participants' engagement in history classroom. It was therefore recommended that efforts should be made to look into other pressing factors like self-esteem, teacher's attitude, student's attitude, parental background among others which may be influencing student's poor academic achievement.

Other researchers have reported correlations between EI and academic performance of a similar magnitude and direction using different measures of EI. Before and after the intervention pre measure and post measure EI inventory should be measure to know the level of emotional intelligence of the students. It seems that the EI-achievement link generalizes across multiple instruments, and thus is construct-related rather than method-related. On the other words the study defined that the emotional intelligence can be teach to studenst in the right way because the emotional intelligence is part of the ability (MacCann et al., 2011; Zeidner, Robert and Matthew, 2002). Students with higher levels of emotional intelligence tend to gain higher levels of academic achievement.

Teachers can also use the example of Lesson Plan based on emotional intelligence provided in the study as a guide to planning different learning activities, especially in the context of pupils with different learning

approaches. Integrating the emotional intelligence presented can be an alternative to History teachers in diversifying teaching and learning strategies, especially in schools' moderate achievement. When EI was emphasized in teaching and learning, some problems related to student achievement, learning approaches and attitudes toward subjects can be overcome.

For the curriculum and evaluation section, the findings of this study are expected to give some insight into the relationship between emotional intelligence, attitudes towards History and student success in following each curriculum made in the curriculum development section. With this, the curriculum development centre can take the initiative to integrate emotional intelligence just like elements of patriotism that are included in Form Two History textbooks.

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