CRITICAL THINKING AS A PREDICTOR OF STUDENTS' ACADEMIC ACHIEVEMENT: A STUDY ON ISLAMIC STUDIES STUDENTS AT PAHANG ISLAMIC COLLEGE, SULTAN AHMAD SHAH, KUANTAN

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ABSTRACT

This study was conducted to see the existence of critical thinking skills among Islamic Studies students at Pahang Islamic College, Sultan Ahmad Shah, Kuantan, based on academic achievement (measured by CGPA). A total of 152 students from year one to three from Islamic Studies programme (Syariah and Law, Dakwah and Management, Arabic Language and Civilization), which consists of 76 males and 76 females involved in this study. The level of study represent students' age range of students involved was between 18 to 28 years. The instrument used in this study was the Watson Glaser Critical Thinking Appraisal (WGCTA-). A Pearson Correlation-r was the main statistics used in this study. Results showed that there was no significant relationship between level of critical thinking skills and CGPA of students at the level of .05. Recognition of Assumptions was significant in predicting student's CGPA as compared to other skills in WGCTA such as inference, recognition of assumptions, deduction, and evaluation of arguments. Next, the finding showed no significant relationship between gender, course majoring by students, and years of study with the students' level of critical thinking skills. The results of the study give the implications that the teaching and learning methods of critical thinking must be put in practice and to be improved in order to increase students' critical thinking potential.

Keywords: Critical thinking; WGCTA; academic achievement, Islamic Studies Programme.

INTRODUCTION

From the time of previous Muslim Scholars to contemporary concerns about the need and ability to think critically and to reason well has been regarded as an important and necessary outcome of education in relation to quality work-force. In the 21st century, learning to think should be central purpose of education. The best learners do not memorize random bits and pieces of information. On one hand, the literature posits that learning should be problem or question-based (Paul & Elder, 2006). On the other hand, interest in developing and teaching thinking skills among students, especially at the tertiary level, have been explicitly expressed by the government as well as the private sectors since the last few decades. This has been clearly stated in the National Education Policy, as well as in the mission and vision statements of all the institutions of higher learning in the country. At the level of secondary education, it is stated that the policy should place more emphasis on critical and creative thinking skills (Ministry of Education Malaysia, 2005). Schools should produce students who are able to think, act, and handle situations or problems intelligently, and this is possible only if their thinking and problem solving skills are developed (Rosnani & Suhailah, 2003).

Statement of Problem

The nature of Islamic education is emphasizing its followers to think and ponder the creatures of Allah. Allah had mentioned about thinking in the holy Quran for several time. For instance, in (Quran 52: 20-21):

> "*On the earth are signs for those of assured faith. As also in your own selves; will ye not then see?*"
> Based on this ayah, men are asked to use their '*Aql* for several times in order to assure their faith.

Another evidences showed about the important of critical thinking in Islamic Education stated in the Holy Quran, such as in (Surah Yunus 10:24), (Surah Ali Imran 3:190), (Surah al-Tur 52:20-21), (Surah Sad 38:29), and (Surah Yusuf 12:111).

Men need to be critical in thinking because the teaching of Islam is not fixed but adjustable according to the circumstances. That is why in Islam, Muslims can do the *Ijtihad* which is a type of critical thinking. Rosnani & Suhailah (2003)agreed that *Ijtihad* as a critical thinking modality in Islamic Education.

Respond to the important of critical thinking in every single aspect, thus, several studies on thinking have been done especially towards science stream and mathematic subject in Malaysia such as Marlina Ali and Shaharom Noordin (2010), Siti Rahayah Ariffin (2010), and N. S Rajendran (2011). It was similar studies to art stream subject such as Zaharah (1995), Rashidah (2000), Mahyuddin Ashaari (2010), Ahmad Mohd Said (2001), and Syuhaida (2006), those who were completing the research on Islamic Education discipline.

However, Qader, Hossien & Gholamreza (2012) found that most testing activities for Islamic Education students focus more on recalling and understanding principles and concepts. He claimed that type of learning in Islamic Education is limited to a shallow level and critical thinking is not emphasized or evaluated

Studies have found that among the factors that lead to this problem is because of neglecting the student potential as mentioned in KBSM which that student are not encouraged to voice out their ideas during teaching and learning session.

Furthermore, teaching and learning process more merely focusing on memorizing facts. There is no chance for students to think. Indeed, more activities emphasized on memorization will give negative impact on student. This is because they are just memorize and could not understand exactly what they learned. As a result, performances of Islamic Education also tend to be low compare to other subjects. This is happen because of low level of critical thinking in this subject. Because of this reason, Islamic Education should be learned with critical thinking.

Objectives of the Study

1. To investigate the level of critical thinking skills among Islamic Studies students (4 Item).
2. To determine the correlation between the aptitudes for critical thinking (measured by the Watson-Glaser Critical Thinking Appraisal and the academic achievement (as indicated by current cumulative CGPA) of diploma students at Pahang Islamic College Sultan Ahmad Shah, Kuantan, with special reference to Islamic Studies majors.
3. To recognize the best element in thinking skill in order to help lecturers in college applying the best method in teaching Islamic Studies programmes.

Research Question and Hypothesis

There are four research questions in this study, as mentioned:

1. **Is there a significant difference between level of critical thinking skills and gender**?

H_0: *There is no significant difference between level of critical thinking skills and their CGPA in accordance with their gender.*

H_1: *There is a significant difference between level of critical thinking skills and their CGPA in accordance with their gender.*

2. **Is there any significant difference between level of critical thinking skills and difference type of Islamic Studies programme**?

H_0: *There is no significant difference between critical thinking skills and their CGPA in accordance with their type of programmes.*

H_1: *There is a significant difference between critical thinking skills and their CGPA in accordance with their type of programme.*

3. **Is there a significant difference between level of critical thinking skills and level of study**?

H_0: *There is no significant difference between critical thinking skills and their CGPA in accordance with their level of study.*

H_1: *There is a significant difference between critical thinking skills and their CGPA in accordance with their level of study.*

4. **Is there a significant relationship between level of critical thinking skills and students' academic achievement**?

H_0: *There is no significant relationship between students' level of critical thinking and their academic performance at Pahang Islamic College Sultan Ahmad Shah, Kuantan.*

H_1: *There is a significant relationship between students' level of critical thinking and their academic achievement at Pahang Islamic College, Kuantan.*

Conceptual Framework

In this study, researcher tried to identify the existence of level of critical thinking skill among the Islamic Studies students at Pahang Islamic College, Sultan Ahmad Shah. In addition, researcher tried to find out the relationship between level of critical thinking and students' academic achievement.

The instrument used in this study was the Watson Glaser Critical Thinking Appraisal (WGCTA). The score for WGCTA may help researcher to identify the level of critical thinking among Islamic Studies students. Several thinking skills in WGCTA such as inference, recognition of assumptions, deduction, and evaluation of arguments were measured in predicting student's CGPA. Pearson correlation-r was the main statistics used in this study.

This study involved males and females students from year one and three from Islamic Studies program (Syariah and Law, Dakwah and Management, Arabic Language and Civilization). The level of study represent students' age range of students involved was between 18 to 28 years. Researcher also collected data related to students' CGPA in order to identify the level of academic achievement among Islamic studies students.

In sum, the finding showed the level of critical thinking accordance to students' gender, programme majoring by students, years of study and the CGPA (**Refer to Figure 1**).

Purpose of Study

1. To investigate to what extent do the students of Islamic Studies possess the quality of critical thinkers as emphasized by Islam.
2. To formulate better ways of teaching and learning that can further enhance and improve the quality of critical thinking among students of Islamic Studies.

Significance of Study

The study is significant in that would be able to answer the question of students critical thinking skill level and their academic achievement. Its findings would enable:

1. Educational researchers know the application of thinking skills among the students.
2. Lecturers in Islamic Studies program to reconstruct and improve the syllabus and method of teaching.
3. Ministry of Higher Education in general and MQA especially to review the policies making done by Pahang Islamic College, Sultan Ahmad Shah.

Limitations of Study

There were several factors may lead to the invalidity of the result. Among them were:

i. Level of Maturity
ii. Tendency to Think Wisely
iii. Culture Bias on Test (WGCTA)

Definitions of Operational Terms

Critical Thinking
It is regarded as a vital skill in today's society because it prevents people from making bad decisions and helps them to solve problems. Critical thinking, as the term is generally used, roughly means reasonable reflective thinking that is focused on deciding what to believe or do. There are more crucial elements of critical thinking that should be put into consideration such as summarizing, synthesizing, predicting, analyzing, and ideas judging based on Islamic Perspective.

Predictor
Predictor is an indicator of something for the future. People make a prediction by analyzing the result that will be happened in the future. Making predictions involves previewing what one already knows and based on those facts and information, anticipating what will happen next. The process of critical thinking involved in predicting assists others in making meaning to an achievement. By making predictions, others are using the following processes: prior knowledge, thinking on a literal and inferential level, adding to their knowledge base, linking affective thinking processes, making connections and filling the gaps in something.

Student Academic Achievement
It refers to the higher level of achievement among the students regarding to their abilities of intellectual domain. Cumulative Grade Point Average (CGPA) will be assigned as a major key point of this study. It will be awarded for letter grades in all courses taken during the time of third years of each subject's Islamic Studies Programme.
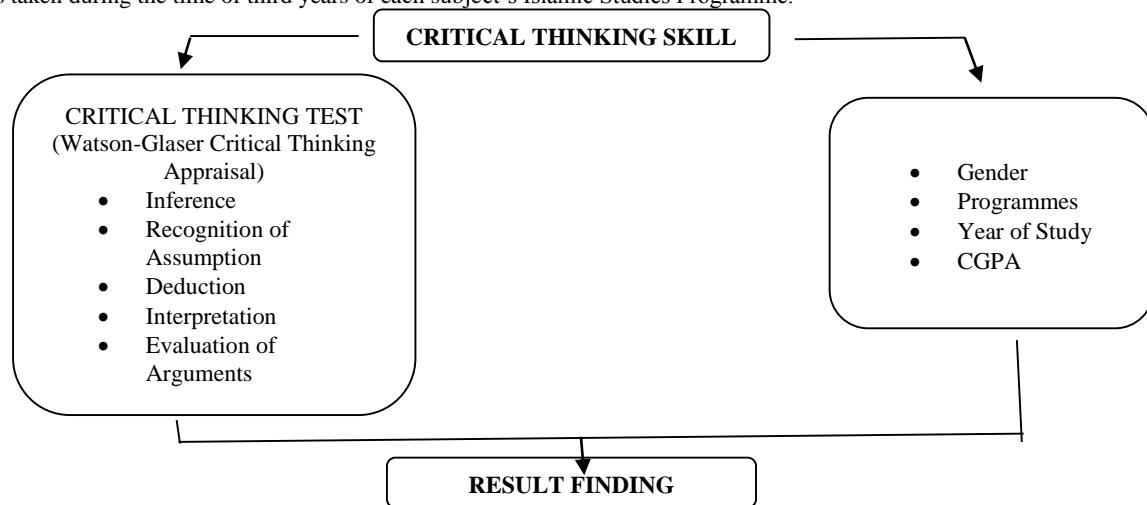

Figure 1: Conceptual Framework of Study

RESEARCH METHODOLOGY

Research design

This study utilized a quantitative research design. This is the most appropriate design for this study for measuring the following critical thinking skills in Islamic Studies students': (a) inference, (b) recognition of assumptions, (c) deductive reasoning, (d) interpretation, and (e) evaluation of arguments. The purpose of using a non-experimental, descriptive research design was to not only describe the behavior of the population or phenomenon being studied, but also describe what is commonly encountered, or prevalent within a population or phenomenon. Descriptive research designs are useful for research to "find more information out about a given topic to generate a hypothesis" and for enabling researchers to identify variables and hypothetical situations that can be researched through other research methods". A correlation test can measure the degree to which two variables are related (Lay & Khoo, 2009) [After being translated]. This can correlate between the two groups in this study—students who have a higher aptitude for critical thinking   and those who demonstrate higher academic achievement. The Pearson Product Moment Correlation Coefficient is the most widely used measure of correlation or association and for use with data at the interval or ratio level of measurement.

Correlations
The strength and direction of the relationship between two random variables is described as a correlation, often measured as a correlation coefficient. Correlations are commonly used in statistical analysis to demonstrate a relationship between two variables. In this study, the correlation was represented by a participant's performance on each of the subscales and describing the degree of the relationship between the variables. Therefore, it will calculate the correlations using the Pearson Product Moment.

The use of a quantitative measure is consistent with the purpose of this study to objectively quantify, to seek out, not manipulate, the relationship between the independent variables of gender, programme, level of study and CGPA and gain additional insight into the critical thinking characteristics of Islamic Studies student's in an effort to determine how the variables relate to one another. Descriptive research designs allow for the collection of data from either a small or large number of people, spread over a large geographical area and are a consideration of the sample population. The availability of a testing instrument, with established validity and reliability, were other factors in determining the use of a quantitative, non-experimental research design for this study.

The Watson Glaser Critical Thinking Appraisal Form (WGCTA) has been used to measure critical thinking skills in this study which has been translated into Malay version. The language and the contents of the test had been checked by two of experts in language and thinking. (Technique used is: Original > Translation > Original > Translation). In this study, researcher maintains all the items. According to Watson and Glaser (1980), this test should be well administered using all the constructs and item because it will be meaningful if it is interpreted holistically. Furthermore, the criterions of test such as the format, instructions, and the marking are based on the original manual.

t-Tests
The *t*-test is a statistical method used to compare the mean of a sample to a known number, usually. Participants are randomly drawn from a population, and the distribution of the mean being tested is often considered the norm. For the purposes of this study, the value of *p* was assumed to be 0.50. The number of test participants was used to calculate the value from the standard deviations and the correlations. In fact, research need to compare the difference between two groups (male and female) accordance to their level of critical thinking, thus t-Tests was the best way to measure.

Anova
Analysis Of Variance (ANOVA) able to overcome a problem by enabling us to identify significant differences between the treatments as a whole. (Charles, 2004) defined ANOVA is specifically designed to compare the means of the dependent variables across the levels of an experimental research design. Researcher decided that the test should be compared. If the researcher looking for the difference between three groups, an ANOVA is appropriate. Thus, researcher intended to use ANOVA to compare difference type of programmes and year of study that may influence student level of critical thinking.

NO.	RESEARCH QUESTIONS	STATISTICAL METHOD
1	Is there a significant difference between level of critical thinking skills and gender?	T-TEST (Descriptive)
2	Is there any significant difference between level of critical thinking skills and difference type of Islamic Studies programme?	ANOVA (Inferential)
3	Is there a significant difference between level of critical thinking skills and level of study?	ANOVA (Inferential)
4	Is there a significant relationship between level of critical thinking skills and students' academic achievement?	CORRELATION – Pearson Correlation r

Table 1: Statistical Method Used in Research

Population and Sampling

Target Population
The target population for the study were Islamic Studies students enrolled in the Pahang Islamic College Sultan Ahmad Shah Kuantan during the semester 1, session 2014/2015. The study will consist of 152 students in the Islamic Studies programme at Pahang Islamic College, Sultan Ahmad Shah.

Setting
Researcher selected Islamic Studies student employed at Pahang Islamic College, Sultan Ahmad Shah to participate in this study. It is situated at KM 8, Jalan Gambang, Kuantan, Pahang. Currently, Pahang Islamic College, Sultan Ahmad Shah provides about 600 places for students to further their studies in various fields of Islamic Studies programme.

The School of Islamic Studies provides students with marketable programme such as Syariah and Law, Dakwah and Management, as well as Arabic Language and Civilization. Method of teaching that has been used by lecturers in teaching and learning process were lecture method, discussion method, question method, drill and practice method, and oral method. However, the most teaching method used by lecturer in Pahang Islamic College, Sultan Ahmad Shah was lecture and discussion method. Meanwhile, the measurement of students' achievement was test 1 and test 2, oral test, quiz, practice, and final examination for every single semester. Students were asked by the lecturer to do the assignment and set up the programme as an evaluation of students' performance. This indirectly help the lecturer to evaluate students whether they were able to apply what they were learned in class. Most of the subjects were expected more towards concept and theory based of learning. Lecturers have to train the students in applying the theories.

Sample
Participants were asked to complete the demographic questions on the WGCTA form. Participants' scores on the assessment had matched to demographic information such as gender, programme, level of study, and CGPA and subsequently this information had used as independent variables in this study.

EXAMINATION RESULT FOR SEMESTER 1, SESSION 2014/2015 BASED ON PROGRAMME

SCHOOL	PROGRAMME	YEAR	EXCELLENT 3.67-4.00	HONOUR 2.67-3.66	PASS 2.00-2.66	FAILED 0.00-1.99	TOTAL
ISLAMIC STUDIES	Syariah and Law	1	19	57	31	5	112
		2	11	51	31	12	105
		3	55	51	5	4	115
		Total	85	159	67	21	332
	Dakwah and Management	1	9	41	23	11	84
		2	22	30	15	4	71
		3	51	20	1	5	77
		Total	82	91	39	20	232
	Arabic Language and Civilization	1	1	9	3	4	17
		2	1	7	2	0	10
		3	12	4	0	2	18
		Total	14	20	5	6	45

Table 2: Students Academic Achievement

Recruitment of Participants
Researcher asked the college's administration officer to introduce the purpose of the study. Information about the study had been included in the form: (a) reason for the study, (b) when the survey is available, (c) how long it will take to complete the instrumentation. (d) Information about informed consent and voluntary participation, and (e) the intended use of the findings, which would be shared with participants upon completion. College's administration officer will be able to view sample test questions from the WGCTA at their request.

152 students have been selected to answer the questionnaire to get high response rate. Permission from the management of the college was obtained before the questionnaires to be distributed. Informed consent also had been given to the participants during the research. Two weeks have been given before the questionnaires being collected.

Variables
The primary purpose of this study is to examine the level of critical thinking among students in the Pahang Islamic College, Sultan Ahmad Shah and to prove its significant benefit for the Islamic Studies students' accordance to their CGPA. The independent were the critical thinking aptitude. Meanwhile, the dependent variable in this study was the students' academic achievement.

Instruments
There are so many tests on critical thinking such as Cornel, WGCTA, California, MCT, and so on.

Cornell Critical Thinking Test (CCTT)

The Cornell Critical Thinking Test (CCTI) is a fifty-item power test of the ability to distinguish whether a statement follows from a premise, whether something is an assumption, whether an observation statement is reliable. Whether an alleged authority is reliable, whether a simple generalization is warranted, whether a hypothesis is warranted, whether a theory is warranted, whether an argument depends on ambiguity, whether a statement is over-vague or specific, and whether a reason relevant.

Watson Glaser Critical Thinking Appraisal (WGCTA)
Researcher found that WGCTA was the best test used. The WGCTA was designed by Goodwin and Edward M. Glaser and is considered to be "the most widely used measure of critical thinking abilities, at least in terms of the citations in the professional literature".

The WGCTA requires to different types of item content. Item having neutral content addressed topics such as the weather, scientific facts or experiments, and other subject matter about which people generally do not have strong feelings or prejudices.

A demographic sheet requested participants' gender, course majoring by students, level of study, and CGPA. The instrument that used for this study and in collecting data is the Watson Glaser Critical Thinking test, adapted and adopted to local conditions, which consists of five subtests (Inference, Recognition of Assumptions, Deduction, Interpretation, and Evaluation of Arguments). The WGCTA is the logical choice for assessing the Critical Thinking aptitude; however, it needs to be adapted to the local Malaysian and Islamic context. The scores on the adapted WGCT form and the final CGPA of the students was form the data analysis.

LEVEL OF CRITICAL THINKING	SCORE
EXCELLENT	20 – 29
GOOD	15 – 19
AVERAGE	10 – 14
POOR	0 - 9

Table 3: Level of Critical Thinking Skills in WGCTA

Procedure

Subjects had be signed a study release form indicating that their data may be used for research purposes. A pilot test had been conducted. They answered the questions in the WGCTA-Form on sheets of paper provided during arranged class periods.

Concepts Measured by the WGCTA

The Watson Glaser Critical Thinking Appraisal Test measures:

1) *Drawing inferences*: The ability to evaluate the validity of inferences drawn from a series of factual statements.

2) *Recognising assumptions*: The ability to identify unstated assumptions or presuppositions in a series of assertive statements

3) *Argument evaluation*: The ability to determine whether certain conclusions necessarily follow from the information in given statements or premises

4) *Deductive reasoning*: The ability to weigh evidence and deciding if generalisations or conclusions based on the given data are warranted.

5) *Logical interpretation*: The ability to distinguish between arguments that are strong and relevant and those that are weak or irrelevant to a particular question at issue.

An individual that is able to differentiate between strong and weak arguments or relevant or irrelevant information is more likely to select the most effective solution to a problem and/or situation. Participants that score high on the WGCTA had been assumed able to develop strong arguments for the support of their ideas.

Data Collection and Data Analysis Procedures

Data Analysis Procedure:
The data has been analyzed by using Statistical Package for the Social Sciences (SPSS) version 11.5.

Validity and Reliability:
The validity of the study seeks for the supervisor's advice & opinion since the WGCTA is adapted and adopted. The modified WGCTA has been checked by several experts in language, religious, and critical thinking discipline. Meanwhile, the reliability of the research included a pilot test that is using Cronbach's Alpha. Pilot Testing involves trying out a questionnaire or other

research on a small group of individuals to get an idea of how they react to it before the final version of the project is created, (Charles, 2004). For this test, 20 students have been involved. After collecting the data from the pilot test, researcher can measure the level of understanding of students towards the questions. Researcher found that Pahang Islamic College, Sultan Ahmad Shah students' were low in English Language. Researcher changed WGCTA-S into Malay version in order to make easy understanding for students.

Performance Scores

The percentage of questions has been answered correctly on the WGCTA form. High and low values have been assigned to the scores.

High and Low Scores

The testing instrument identifies critical thinking raw score responses falling into a category of 60% or above as high and those falling below 40% as low. Responses falling above 60% indicated a high level of critical thinking skill and responses below 40% indicated a low level of critical thinking skill.

Mean Scores

Researcher analyzed the raw composite scores and raw sub-scores of each of the concepts measured in this test and then calculate mean scores. Mean scores, are a descriptive statistic used to measure the central tendency of a data set, are determined by adding all of the participants scores and dividing the total by the number of participants (Trochim, 2006).

RESULT AND DISCUSSION

The goal of the present study was to investigate the existence of level of critical thinking skill among Islamic Studies students based on their academic achievement. Slightly more students were found to be average in critical thinking skill. This is expected in Islamic Studies programmes require students to be involved in critical endeavours in order to successfully deal with real life problems. Students who had attended the Islamic Studies programmes were exposed to problem solving which required them to have critical thinking skill that is also a necessity to deal with the analytical and logical aspect of problem-solving. However, the application of critical thinking skill stills not enough.

Demographic Background

1- Gender of students
- The survey was distributed randomly to 76 male students and 76 female students.

Table 4.1:
Gender of Students

Gender of Students	*n*	Percent
Male	76	50
Female	76	50
Missing	0	0
Total	152	100

Table 4.2:
Descriptive Statistics for Level of Critical Thinking between Male and Female

Gender	*n*	Mean	Standard deviation	Sig. (2 tailed)
Male	76	2.789	.549	
Female	76	2.802	.566	
				.895
Total	152			

The results of the analysis could be presented as follows:
- An independent-samples T-Test was conducted to compare level of critical thinking skills for male and female. Researcher found that there was no significant difference in level of critical thinking skills for male (M= 2.789, σ = 0.549) and female (M= 2.802, σ = 0.566) with $t(22) = 0.895$) p> 0.05. Therefore, it can be concluded that whether male or female, it may not be the main factor that will influence their level of critical thinking skills.

2- Course Majoring by students
- There were 3 different courses which fall under Islamic Studies School. Researcher obtained 60 (39.5%) respondents from Syariah and Law programme, 74 (48.7%) from Dakwah and Managemant programme, and 18 (11.8%) from Arabic Language and Civilization programme.

Table 4.3:
Course Majoring by Students

Course Majoring by Students	*n*	Percent
Syariah and Law	60	39.5
Dakwah and Management	74	48.7
Arabic Language and Civilization	18	11.8
Total	152	100

Table 4.4:
Descriptive Statistics for Level of Critical Thinking and Course Majoring by Students

Course Majoring by Students	*n*	Mean	Standard Deviation	Sig
Syariah and Law	60	3.143	.335	
Dakwah and Management	74	2.869	.416	
Arabic Language and Civilization	18	3.163	.273	
				.324
Total	152	3.123	.364	

- A one-way between-groups analysis of variance (ANOVA) was conducted to explore the level of critical thinking accordance to their type of programmes. Subjects were divided into three difference programmes (1.00 = Syariah and Law, 2.00 = Dakwah and Management, and 3.00 = Arabic Language and Civilization). There was no statistically difference at the $p > 0.05$ for the three programmes [$p = .324$]. Researcher found that difference type of courses did not influence level of critical thinking.

3- Year of study
- The survey was distributed randomly to three type's year of study namely; First Year, Second Year, and Third Year. Out of 152 participants, 52 (34.2%) students were First Year, 47 (30.9%) students were Second Year while 53 (34.9%) students were in Third Year. Overall the level of study (First Year, Second Year, and Third Year) of Islamic College Diploma represent student's age ranged from 18 years old to 28 years old, which is the age range where greater percentage of critical thinkers is expected. The peak of critical thinking occurs during the age of 18 to 25 years old. Therefore, the finding in this study is consistent with previous findings.

Table 4.5:
Year of Study

Year of Study	*n*	Percent
First Year	52	34.2
Second Year	47	30.9
Third Year	53	34.9
Total	152	100

Table 4.6:
Descriptive Statistics for Level of Critical Thinking and Year of Study

Year of Study	*n*	Mean	Standard deviation	Sig
First Year	52	2.8269	.550	
Second Year	47	2.7447	.530	
Third Year	53	2.8113	.590	
				.743
Total	152	2.7961	.555	

- A one-way between-groups analysis of variance was conducted to explore the level of critical thinking and their year of study. Subjects were from the different year of study (1.00 = First Year, 2.00 = Second Year, and 3.00 = Third Year). Frankly speaking, there was no statistically difference at the $p > 0.05$ for the year of study [$p = .743$]. Researcher found that year of study did not influence level of critical thinking.

4- CGPA of students
- Overall, there were more students score with average grade 92 (60.5%).

Table 4.7:
CGPA of Students

Category	CGPA of Students	n	Percent
Excellent	3.67 – 4.00	14	9.2
Honour	2.67 – 3.66	92	60.5
Pass	2.00 – 2.66	41	27.0
Fail	0.00 – 1.99	5	3.3
Total		40	100

5- Marks Scored by Students in WGCTA
- Researcher found that most of the students scored in the average level in the test. With 99(65.1%). There was no student able to score in excellent grade for this test. Thus, researcher may conclude most students were placed in average level of critical thinking.

Table 4.8:
Marks Scored by Students in WGCTA

Category	Marks	n	Percent
Excellent	20 - 29	0	0
Good	15 - 19	42	27.6
Average	10 - 14	99	65.1
Poor	0 - 9	11	7.2
Total		152	100

6- Relationship between Level of Critical Thinking and their CGPA

Table 4.9:
Correlation for Level of Critical Thinking and CGPA

	Level of Critical Thinking	CGPA of Students
Level of Critical Thinking	1	.118
CGPA of Students	.118	1

N = 152
$p < .01$, two tails
**$p < .05$, two tails*

- The relationship between level of Critical Thinking and CGPA was investigated using Pearson-correlation coefficient. There was a strong, positive correlation between two variables [$r = .118$, $n = 152$, $p > .148$], with lower level of critical thinking of participants associated with high grades of CGPA. In sum, there is no correlation between students' critical thinking level and their academic achievement (measured by CGPA). This can be predicted that level of critical thinking skill among Islamic studies students do not influence their academic achievement.

7-The Most Significant Prediction of Critical Thinking Skill
- From the survey, researcher concluded that, the most significant prediction of critical thinking among Islamic Studies students was Recognition of Assumptions, labelled as 2.00 the $M = 4.0329$ and $\sigma = .97938$.

TABLE 4.10:
Critical Thinking Skills (Watson Glaser Critical Thinking Appraisal)

Elements of Critical Thinking Skill	Mean	Standard deviation
Inference	1.1776	.79819
Recognition of Assumptions	4.0329	.97938
Deduction	2.0461	1.06316
Interpretation	2.5197	1.02918
Evaluation of Arguments	3.2763	1.36269

Total		

TABLE 4.11:
The Most Significant Prediction of Critical Thinking Skill

Element of Critical Thinking Skill	Mean	Standard deviation
Recognition of Assumptions	4.0329	.97938
Total	4.0329	.97938

CONCLUSION

In conclusion, a slightly larger percentage of Islamic Studies students were found to have average level of critical thinking skills and the trend is similar among males and females. Further to that, academic achievements of Islamic Studies students were found not to be associated with thinking skills where the number of critical thinkers is observed to be lower than expected among those who excel in academics. If indeed critical thinkers are more successful academically, more efforts should be focused to improve critical thinking skills. However, the finding in this study showed that level of critical thinking of student in Islamic Studies is not a prediction of student academic achievement (measured by CGPA).

Researcher found that student in Islamic Studies programme maintains in average level of critical thinking and it is absolutely not a prediction of academic achievement. It should be noted that academic achievement is also closely related with student's learning activity and experience. The learning and teaching experience provided by Islamic Studies programme is likely more heavy on theoretical knowledge. The learning concepts in this institution emphasize hands on learning skills as much as 35%, and only 65% theoretical knowledge acquisition. Students were evaluated by the lecturers on aspects of problem solving skills through given assignments, essay examinations, and presentations. Therefore they must apply the critical thinking skills to analyze problems, give opinions or argue analytically, analyze, prepare for assessments and to generate ideas to resolve problems. Findings from study also indicated that the oral assessments, presentation and group assignment increase the creative and critical thinking compared to essay examinations or multiple choice tests.

Therefore, further study is needed to verify the findings and to make it more useful to the education community. The fact that no one achieves the superior position could also be a cause for concern and focus of further research. In all its limitation, the study does provide some indication of the status of Islamic Studies students thinking skills in particular. Thus, educators who wish to foster critical thinking, I have suggested, stand to gain from conceptualizing students' potential for critical thinking in a development framework of what is likely to follow. This paper, I hope, will prove a useful starting point to educators seeking a bridge , one enabling them to draw on empirical data on how Islamic Education students' thinking skill develop, as a means of enriching their visions of good practices (Norfadelah, 2015).

Suggestion

The formulation of model in critical thinking studies is generally associated with research in the process used by the practitioners to student attitudes. Model can be defined as a set of subject and predictions and how it is interrelated. It also uses (a system or procedure) as an example to follow or imitate. Some defines model as a simplified version of concept or phenomenon. Thus, how does critical thinking connect to this achievement? Each of the five elements of Islamic Thinking – *Tadabbur, Tafkih, Tafakkur, Ta'qil* and *Tadhakkur* - is central to Critical Thinking. Rosnani (2004) also mentioned the frequent appearance of terms such as *fakkara* (to think), *faqiha* (to understand), *dabbara* (to consider), *'aqala* (to think), and *fahima* (to understand) in the Quran are terms that mean thinking.

Level	Core Element	Keyword	Subject/ Course
Tadabbur	JUDGE IDEA	Conclude, Summarize	Al-Quran, Tasawwuf
Tafakkur	PREDICTION	Invent, Hypothesis, Construct	Sirah, Arabic Language
Tafqih	ANALYZING	Analyze, Inquire, Experiment	Syariah, Fiqh
Ta'qil	SYNTHESIZING	Interpret, Infer, Explain, Predict, Generalize	Akidah, Theology Islam
Tadhakkur	SUMMARIZING	Memorize	Al-Quran, Hadith

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