

Application of Critical Thinking in Teaching Islamic Subjects

Syuhaida Idha Abd Rahim^{1*}, Siti Noorbiah Md Rejab²,
Mohd Dani Muhamad³

^{1,2,3} Academy of Contemporary Islamic Studies (ACIS),
Universiti Teknologi MARA,
40450 Shah Alam, Selangor, Malaysia

*Corresponding Author
E-mail: idha63@salam.uitm.edu.my

ABSTRACT

This study examined the application of critical thinking in teaching Islamic subjects at the campus of Universiti Teknologi MARA Puncak Alam. The sample of this study consisted of students from various faculties. Based on specific characteristics, the researchers used stratified random sampling to draw the samples. In particular, the study examined respondents' perception on critical thinking towards the teaching approaches and methods in teaching critical thinking. Using questionnaire as instrument, this study probed on respondents' view on their lecturers' teaching practices in the aspect of critical thinking. The researchers employed descriptive statistics to analyse the collected data. Findings indicated that the majority of the respondents have positive perceptions on critical thinking. Most of them believed that their lecturers practiced critical thinking in the classroom. They agreed that the use of critical thinking will enhance their success in the off-the-campus activities. Nevertheless, this study does not capture details of the lecturers' actual practices in teaching critical thinking to their students. Perhaps further study using qualitative methods such as classroom observations and interviews with the lecturers would better explain such application of critical thinking in the lecturers' method of teaching.

Keywords: Application, Critical Thinking, Critical Thinker

1. Introduction

Why must we be critical thinkers? Why must we be able to do critical thinking? To lead a truly meaningful life, one cannot escape from thinking, and being critical thinker ensures that life is meaningful (Zaleha, 2002). The ability to think well is critical to an individual's success in life (Rosnani, 2003). What is then critical thinking?

Allah SWT regards man as a servant who has responsibilities and abilities which are not given to other beings. These abilities allow them to fulfill their responsibilities as servants of Allah. Man has been given the intellect to perform the most fundamental tasks such as reading, thinking, reflecting and understanding God's signs in the Quran and the world. In the Quran, Allah SWT has clearly mentioned: "(Here is) a Book, which We sent down unto thee, full of blessing that they may mediate on its Signs and that men of understanding may receive admonition" (Sad: 2).

Thinking is considered as *ibadah* or a form of worshipping Allah, which, shall be rewarded as long as it is done with sincerity or *ikhlas*, good intention and purpose. Abbas al-'Aqad who is a contemporary prominent thinker, considers *tafikir* or thinking as an Islamic obligation which corresponds in the Al-Quran that mentions the requirement of *ulul al-bab* that leads to thinking. Allah created man to think by using reasoning (*afala ya'qilun*), think creatively (*afala tatafakkarun*) and to ponder, to inquire and to investigate things (*afala ya tadabbarun*). The tradition of thinking in the past led to tremendous achievements of the Muslims in the fields of philosophy and science such as astrophysics, mathematics, mechanics, music and many others (Sidek, 2005). Therefore, thinking is part of the Islamic tradition.

The concept of critical thinking has been refined and enriched since its appearance 2500 years ago. By searching through the literature, various definitions were found to help one understand the nature of critical thinking. The first is to define critical thinking as reflective thinking active, persistent, and careful consideration of a belief or supposed form of knowledge in light of the grounds which support it and the further conclusions to which it tends (Dewey, 1993). It has also suggested a 5-phase critical thinking model which includes suggestions, problem definition, hypothesis, reasoning and hypothesis testing. In the Islamic tradition, critical thinking is a platform in making a decision, interpretation and exegesis. Through critical thinking, people could find the truth. Thinking process allows someone to distinguish between right and wrong, good and bad, which would thereby bring benefit to the

consequences and so on. The basis of one's ability in critical thinking is knowledge, information, exchange experience and views of Islam that ends with wisdom. Thus, students should be trained to be critical readers who can question, organize, interpret, synthesize and digest what they read.

The importance of critical thinking is undeniable. In the healthcare industry for example, thinking is at the centre of nursing and the foundation of nursing care. The decisions made by a nurse can give impact to health status, recovery time, safety and even life and death of a client. Doing and thinking are inseparable in nursing and it involves a process known as critical thinking. It is therefore, the teachers' responsibility to inculcate their students with the ability of thinking critically so as to ensure that the outcomes produced would become responsible individuals in their respective career in the future.

Specific study on the practice of critical thinking in teaching is therefore necessary to examine the current practice. Hence, the purpose of this study is to investigate lecturers' application of critical thinking in teaching Islamic subjects at Universiti Teknologi MARA Puncak Alam Campus. It will also attempt to identify the ways how students can think critically through learning of Islamic subjects offered especially by Academy of Contemporary Islamic Studies (ACIS).

This study focuses on the application of critical thinking among lecturers in teaching Islamic subjects as perceived by their students. The study also investigates whether or not the lecturers of Islamic subjects encourage their students to think critically and do the lecturers apply critical thinking process in the teaching and learning of related subjects. Samples of this study are confined to students from Universiti Teknologi MARA Puncak Alam Campus only.

1. Methodology

The population of this study comprised students from various faculties at Universiti Teknologi MARA Puncak Alam Campus. There are students from foundation studies (Asasi), diploma and degree level from the Faculty of Health Science, Faculty of Business Management, Faculty of Pharmacy and the Foundation Studies. The researcher has decided to conduct this study in this University since there is no study done on the application of critical thinking in Islamic studies. The researcher stratified the population on some specific characteristics by using stratified sampling. A sizeable sample of the study was drawn randomly to

represent each stratum. A total of 500 questionnaires were distributed randomly to the students and immediately collected upon completion. Of the total, 422 usable questionnaires had been successfully collected (Table 1). Random sampling was used because every member of the population had equal chance of being selected.

Table 1. Distribution of students according to level of study

Demographic											
Asasi				Diploma				Degree			
Male		Female		Male		Female		Male		Female	
No	%	No	%	No	%	No	%	No	%	No	%
66	15.6	90	21.3	4	0.9	49	11.6	43	10.2	170	40.3

This study is quantitative in nature and it utilizes questionnaires as an instrument to collect the required data. A survey method using questionnaire instrument is adopted as it is the most cost-effective method of collecting data. The instrument used in this study was indeed replicated from a study by Sidek (2009) on Teachers' Perceptions toward The Teaching of Thinking and Their Practices in Secondary Schools in Klang, Selangor. Several changes and amendments were made to accommodate the new circumstances. The instrument was divided into three parts comprising Part 1: student's background, Part 2: student's perception on critical thinking and Part 3: student's report on lecturer's practices in teaching critical thinking.

Part 1 of the instrument captures the demographic background of the respondents such as gender, level of study and the number of attended courses or seminar on thinking skills. Part 2 examines student's perception toward learning critical thinking. The items in this part are divided into five categories that seek to find out student's perception on teaching approaches (4 items; no 1-4), teaching methods (6 items; no 5-10), the curriculum (4 items; 11-14) and student's general view on teaching critical thinking (5 items; no 15-19). The response to each item is in the form of a five-point Likert scale of "strongly disagree", "disagree", "undecided", "agree" and "strongly agree". Part 3 of the instrument, which comprises 24 items, examine students' report on lecturers' practice in critical thinking. The reports were categorized into four categories which are the level of critical thinking skills that lecturers teach (12 items; no 1-12), the three thinking skill; problem-solving, decision-making, and creative thinking skills (3 items; no 13-15), the approaches

Application of Critical Thinking in Teaching Islamic Subjects

in teaching critical thinking (3 items; no 16-18) and lecturers' teaching strategies (3 items; no 19-21). The response to each item in Part 3 is also in the form of five-point Likert scale of "never", "rarely", "sometimes", "frequently", and "always".

The returned questionnaires were manually checked by the researcher to screen their usability. The acquired data were then coded and processed using Statistical Package for Social Science (SPSS) version 20. The researcher used descriptive statistics to analyse the processed data.

2. Results and Discussion

The result of this study are presented and discussed in this section. This section is organized into three sub-sections. The first section describes the demographic information of the respondents. The second section describes respondents' perception on critical thinking and the third section describes the respondents' view on lecturer's practise in teaching critical thinking. The demographic characteristics of the respondents considered in this study include gender, level of study, and the number of courses attended on thinking. Table 2 shows that the samples in this study consisted of 113 (26.8%) male students and 309 (73.2%) female students. The approximate ratio of 3:7 between the males and females is not surprising as it reflects the actual overall enrolment of students in higher institutions in the country.

Table 2. Demographic characteristic according to Gender

	Frequency	Valid %	Cumulative %
Male	113	26.8	26.8
Female	309	73.2	100
Total	422	100	

The respondents' level of study is displayed in Table 3. Of the total of 422 respondents, slightly more than half (50.5%) are undertaking degree programme, while the rest are taking Asasi (Foundation Studies) (37.0%) and Diploma (12.6%).

Table 3. Distribution of level of study

	Level of Study					
	Asasi		Diploma		Degree	
	No	%	No	%	No	%
Male	66	15.6	4	.9	43	10.2
Female	90	21.3	49	11.6	170	40.3
Total	156	37.0	53	12.6	213	50.5

The number of courses attended in Table 4 shows that the majority of respondents attended courses on thinking more than three times (51.9%). A total of 154 respondents (or 36.4%) had attended at least one to three courses on thinking. However, 29 (11.6%) of the respondents had never attended any course on thinking. Nevertheless, this finding shows that most of the respondents attended the courses conducted by the university or other agencies from outside the campus.

Table 4. Number of courses attended on teaching of thinking

	Number of Thinking Courses Attended									
	Never		Once		Twice		Trice		More than 3 times	
	No	%	No	%	No	%	No	%	No	%
Male	20	4.7	15	3.6	21	5.0	2	.5	55	13.0
Female	29	6.9	48	11.4	42	10.0	26	6.2	164	38.9
Total	49	11.6	63	14.9	63	14.9	28	6.6	219	51.9

The researcher investigated the respondents' perception on critical thinking. Questions were asked to find out their perception on teaching approaches on thinking, teaching methods on thinking and the curriculum.

2.1 Respondents' perception on the various teaching approaches on critical thinking.

Table 5 shows that the respondents scored high with the mean percent of 84 when asked about teaching approaches of lecturers. Thus, respondents highly perceived that lecturer's teaching approaches were incorporating critical thinking. The highest score of 88.4% was on the item "Thinking can be best by identifying critical thinking and teaching them across the curriculum". The lowest score of 78.5% was obtained when respondents

Application of Critical Thinking in Teaching Islamic Subjects

were asked critical thinking can be improved implicitly through lecture's methods.

Table 5. Respondents' perception on the various teaching approaches on critical thinking

Teaching Approaches	Strongly disagree		Disagree		Undecided		Agree		Strongly Agree	
	No	%	No	%	No	%	No	%	No	%
Across Curriculum	3	.7	7	1.7	39	9.2	280	66.4	93	22.0
Separate Subject	4	.9	24	5.7	55	13.0	257	60.9	82	19.4
Lecturer's Method	4	.9	21	5.0	66	15.6	234	55.5	97	23.0
Lesson Development	3	.7	6	1.4	39	9.2	268	63.5	106	25.1
Mean %	4.2%				11.8%				84%	

2.2 Respondents' perceptions on teaching methods on critical thinking

Findings in Table 6 indicate that the respondents perceived lecturer's teaching methods of collaborative learning versus student-centred lesson (86.1%) and telling stories (80.9%) would develop their critical thinking. A total of 84.2% of the respondents also believed that skill-centred and subject-centred lessons promote critical thinking. The lowest score of 39.1% of giving notes versus asking relevant questions by lecturers implies that such method gives the least impact on critical thinking. The overall mean percent of 68.3 would imply that the teaching methods used by lecturers are able to inculcate critical thinking.

Table 6. Respondents' perceptions on teaching methods on critical thinking

Teaching Method	Strongly disagree		Disagree		Undecided		Agree		Strongly Agree	
	No	%	No	%	No	%	No	%	No	%
Skill-Centred vs. Subject-Centred Lessons	3	.7	10	2.4	54	12.8	248	58.8	107	25.4
Teacher-Centred vs. Student-Centred	4	.9	40	9.5	110	26.1	213	50.5	55	13.0
Collaborative Learning Vs. Individual Learning	7	1.7	13	3.1	39	9.2	237	56.2	126	29.9
Lecture Method vs. Classroom Discussion	7	1.7	88	20.9	89	21.1	176	41.7	62	14.7
Giving Notes vs. Asking Relevant Question	25	5.9	146	34.6	86	20.4	125	29.6	40	9.5
Telling Stories	4	.	17	4.0	60	14.2	234	55.5	107	25.4
Mean %			14.4		17.3		68.3			

2.3 Respondents' perception on critical thinking curriculum

Table 7 indicates that almost two-third (71.3%) of the respondents agreed that the existing curriculum provides opportunities to teach critical thinking despite the fact that 65.2% agreed that there were too much contents in the syllabus which do not allow enough space for inculcating critical thinking. About 60.4% of the respondents perceived the existing curriculum does not provide an adequate guide on how critical thinking can be taught through a particular subject. The textbooks too were not very much helping the respondents in learning critical thinking in the classroom (207 respondents or 49%). Thus, it can be concluded that the syllabus and university curriculum including the textbooks were inadequate for the enhancement of critical thinking.

Table 7. Respondents' perception on critical thinking curriculum

The Curriculum	Strongly disagree		Disagree		Undecided		Agree		Strongly Agree	
	No	%	No	%	No	%	No	%	No	%
Existing Curriculum	2	.5	30	7.1	89	21.1	251	59.5	50	11.8
Syllabus Curriculum	8	1.9	44	10.4	95	22.5	207	49.1	68	16.1
Textbook	5	1.2	46	10.9	116	27.5	214	50.7	41	9.7
Mean %		2.1		12.1		24.3		49.9		11.6

2.4 Respondents' perception on lecturers' practise in teaching lower-order thinking skills

Table 8 shows the respondents' perception on lecturer's practice in teaching lower-order thinking skills. Findings indicated that lecturers frequently encouraged the respondents to give the reasons for every answer given (72.5%). Other techniques such as asking the respondents to determine parts and whole relationships (60.9%), categorization and classification (55.7%) and reasoning by analogy (48.8%) were also used. The mean percentage for the frequent practice of lower-order thinking skills is 57.8%.

Table 8. Respondents' perception on lecturers' practice in teaching lower-order thinking skills

Lower order thinking skills	Never		Rarely		Sometimes		Frequently		Always	
	No	%	No	%	No	%	No	%	No	%
Compare and contrast	2	.5	32	7.6	172	40.8	152	36.0	64	15.2
Categorization and classification	3	.7	38	9.0	146	34.6	170	40.	65	15.4
Finding Reason	7	1.7	12	2.8	97	23.0	173	41.0	133	31.5
Reasoning by Analogy	7	1.7	36	8.5	173	41.0	140	33.2	66	15.6
Determining parts and whole	3	.7	24	5.7	138	32.7	177	41.9	80	19.0
Mean %		1.0		6.7		34.4		38.5		19.3

2.5 Respondents' perception on lecturers' practice in teaching higher-order thinking skills

Table 9 displays the respondents' perception on their lecturers' practice in teaching higher order thinking skill. Findings of the study implied that the lecturers often asked the respondents to make prediction (a percentage of 71%) and encourage them to seek for possible reasons before making conclusion (a percentage of 69%) in order to inculcate higher order thinking skills. Other techniques that are frequently done by the lecturers are examining the reliability of any source of information (65%) and making inferences on available evidence (64%). The rest of the techniques such as uncovering assumption (57.8%) and using analogy (47.9%) are not frequently used. The least technique used by the lecturers is searching evidence before making generalization (39.1%). This is probably due to many of Academy of Contemporary Islamic Studies (ACIS) lecturers were not familiar with teaching by using generalization. They might also have limited skills in making the analogy.

Table 9. Respondents' perception on lecturers' practice in teaching higher-order thinking skills

Higher Order thinking Skills	Never		Rarely		Sometimes		Frequently		Always	
	No	%	No	%	No	%	No	%	No	%
Prediction	3	.7	28	6.6	133	31.5	171	40.5	87	20.6
Uncovering Assumption	4	.9	26	6.2	148	35.1	165	39.1	79	18.7
Reliability	4	.9	20	4.7	130	30.8	156	37.0	112	26.5
Generalization	25	5.9	146	34.6	86	20.4	125	29.6	40	9.5
Making conclusion	2	.5	12	2.8	117	27.7	176	41.7	115	27.3
Making inference	3	.7	29	6.9	115	27.3	180	42.7	95	22.
Using analogy	11	2.6	47	11.1	162	38.4	141	33.4	61	14.5
Mean %		1.8		10.4		30.2		37.7		19.9

3. Conclusion

The findings of this study indicate that students of the university have positive perceptions on critical thinking. Most of the students believed that their lecturers practised critical thinking in the classroom. Almost

half of the students strongly believed that the syllabus, university curriculum, and textbooks were not encouraging with respect to enhance critical thinking to them, perhaps the university can provide more seminar, training and courses for the lecturers to further improve their perception and practices as well as knowledge about teaching critical thinking. Generally, students also tend to perceive that critical thinking can be applied through skill-centred teaching method. Most of the students strongly believed that the teaching methods used by lecturers utilized critical thinking. Furthermore, respondents generally agreed that the existing curriculum provided opportunities to teach critical thinking. Nevertheless, too much content in the syllabus would impede the inculcation of critical thinking. In addition, the use of textbooks and adoption of university curriculum were inadequate for teaching critical thinking. Perhaps, revising the syllabus to accommodate the inculcation of higher order thinking skills is necessary to produce critical thinkers at the university. The finding of this study also indicates that lecturers' frequency in asking questions may support critical thinking. The result also found that the lecturers used more higher-order thinking skill techniques than the lower-order thinking skill techniques.

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