

Empowering Quality Questions: Generating Students Thinking Capability

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Abstract

Addressing the agenda of education in the 21st century requires the commitment of educators to realize the potential of students thinking to be synthesized towards mastering the thinking capability at a high level. Its objective is to create a generation that will be able to apply their thinking skills in addressing various challenges of life effectively. Thus, the responsibilities of educators in the effort to generate students' thinking capability should be reviewed in order to know to what extent the role has been implemented. Therefore, this article is aimed in deducing the results of a study on University Malaysia Terengganu (UMT) program to evaluate the degree of concern among lecturers in mastering skills in the formulation of different types and levels of difficulty of the questions and to apply them in the context of student assessment that affects their thinking capability. The variety of difficulty levels of questions impacts students' thinking behavior. The questions at the low difficulty level will only provide students with the experience of recognizing and remembering information from the text without incurring their efforts to think with reason and mind. Meanwhile, the questions at the high difficulty level effectively affect the ability of the students to think because this is the point where the learned application is applied and rethought in order to match it to different circumstances. Content analysis with descriptive study with checklist instrument to study difficulty level was applied to evaluate a total of 412 questions from 12 courses for the final examination of the program of study. The results showed that the majority of questions were 59% constructed using memory questions and only 1% tested the evaluation questions with 12% of the questions occupying the highest level and the rest 88% at the low level. This deduction reflects the act of neglecting the importance of applying the multiformity of types and the difficulty of the questions among the question makers hence affecting the quality of the questions and the impact on student's thinking performance. The fact that the accuracy and accountability of the question makers do determine the theoretical and practical knowledge in the aspect of assessment provide assurance of the quality of the questions as well as the establishment of well-managed and strong minded students. Ergo, academic leadership should seriously monitor this matter as it will affect the credibility of the graduates and also academic holistically

Keywords: thinking skills; question type; difficulty level of the question; question maker; quality of questions

1. Introduction

In the context of education, assessments and analysis are interconnected with each other. One of the ways of implementing these two aspects in teaching and learning is through the establishment of elements of questions and questioning. Questions and questionings are important aspects that help educators to test the students understanding and stimulate their thinking. Generated questions are used effectively in order to bring about the mastery of student's thinking skills as well as being the medium to evaluate the level of effectiveness and their thinking capability towards more proactive and innovative learning. In conjunction with this, Sanders (1966) has highlighted that good and effective questions exhibit wide-ranging levels of thinking and are molded using different levels of thought and can direct students to effective and collaborative learning. It indirectly generates students' cognitive skills in terms of acquiring knowledge as well as mental processes that drive their thinking capability.

The significance of questions and questionings has their function in the national education curriculum towards reaching the mastery of thinking skills effectively among students. Questions and questionings work to determine the level of student-thinking capability and guide them to more productive learning, especially to face reality later. Therefore, educators especially lecturers, need to have the skills to form multilevel questions and use them productively to improve the effectiveness of teaching and learning in the classroom as well as generating students' thinking capability at different levels.

However, the problem still continue to persist especially during the vetting process that argues the competence of lecturers in creating quality questions. Among the arguments are: the majority of the questions being generated are at low levels; do not use the diversity of questions and questioning phrases; as well as fail to provide effective question assignments. These facts are in line with the findings of earlier studies that have been carried out by UMT (2008) with the results of studies showing the majority of lecturers using questions at a low level of knowledge and comprehension compared to questions at high levels.

In order to overcome these weaknesses, UMT has devised strategies for holding courses and workshops towards strengthening the ability of lecturers to build questions and questionings to apply in teaching and produce quality exam questions. As a result, three workshops have been conducted by the Center for Academic Quality and Development (PKPA) which its responsibility for developing training for improvement of professionalism among lecturers for instances: Workshop on Generation and Empowering of Questions (2009); Lecturers Professionalism Improvement Workshop: Series of Generation and Empowering Questions (2010); and Question Item Development Workshop (2011) which uses external expertise in the field of analysis and evaluation. In fact, these efforts still progress to be implemented.

The result of this study is to evaluate the degree to which the ability of lecturers mastering the skills in the generation of the diversity of types and the difficulty of the questions that impact on the quality of questions and students' thinking capability. Question and questioning aspects are a fraction of research that has a strong foundation to be investigated in order to scrutinize the extent to which concerns in the development of the questions are accentuated as it will affect students in generating intellectual and diversity of their thinking. Specifically, this study aims to confer:

- 1) Lecturer's ability to use multiple types of questions in the final exam of the semester of study.
- 2) The ability of the lecturer to use the diversity of the difficulty of the questions in the final exam of the semester of study.

3) Aspects of strengths and weaknesses as well as resolutions in strengthening and generating quality question and student thinking skills.

2. Literature Review

The transformation of national education such as the aspiration of the prime minister of the country (MohdNajib Abdul Razak, 2012) still emphasizes on developing the students' thinking potential so that the future generation will be able to overcome the various challenges of life adequately. This means that students' thinking potential should be given a priority towards mastering diversity of thinking to be applied in the variation of life situations. Ergo, the teaching and learning scenario in education should be a platform which allows the application of various levels of thinking skills and abilities to produce creative, critical, and innovative students in dealing with and solving problems.

MahyuddinAshaari (2011) describes the aspects of the mind that exists in man as a tool that moves one to think like an account in the Quran surah al-Imran verses 190-191, that the Quran encourages human mind to observe and think of Allah SWTs creation about the universe such as the creation of heaven and earth, night and day cycle that can be used as material for thought for human beings and studied. Hence, this statement provides the lessons and implications of the importance of human mind potential to be developed, nurtured and guided towards the generation of human beings capable of thinking in carrying out the appropriate actions of life on earth. This means that the national education system is responsible for executing the trust to shape and generate the potential capacity of students to think through the ongoing planning, implementation, monitoring and improvement in the transformation of the current state education curriculum.

The fact is, the capacity of mind to think is motivated by questions and in order to stimulate thinking, the use of questions should dynamize the mind of the students. This affirmation provokes the educators to move the students towards thinking on the diversity of cognitive levels. In this regard, educators are entrusted with the mandate, responsibility and play their roles as the ultimate basic to use quality questions that lead to cognitive diversity and to form a sound and effective strategy of questioning. As a matter of fact, questions induced with various cognitive levels and employed with intensive planning during teaching and learning sessions will be able to create a diverse paradigm of thought among students as well as to produce more competent learning.

The importance of the difficulty level of the questions and the relevance of the students' thinking skills have been demonstrated in many previous studies to date which still emphasize high-level thinking skills. Among them, Wilson (1973) describes the cognitive level of questions affecting student responses in which cognitive diversity in student answers is chiefly determined by the diversity of questions given. Cole and Williams (1973), Smith (1978) and Dillon (1981) found that questions at the level of recognizing and memorizing have low difficulty levels and generally get short answers in comparison to high-level questions that require students to give their opinions and inference. Similarly, Ruddel (1974) sees the relationship between cognitive processes with multiple-level questions proving that questions at high cognitive levels such as inference and applications encouraged higher cognitive processes in comparison with experience and memory questions at low levels. Additionally, questions at a low level only require the memory and experience of the student as an answer. On the other hand, questions at high cognitive levels involve modifying text through analysis, synthesis, finding the cause and effect

and creative thinking application skills. This demonstrates the importance of exposing students to high-level thinking and mastering skills to address those questions.

Furthermore, the results of the study by McKenzie (1997) and Elder and Paul (1998) have found that there is a relationship between questions and thinking skills, whereby questions and questionings constitute the underlying foundation of all forms of action to think effectively. Classen (1990) through his research has proven that teaching strategies that have a substantial effect in mobilizing thinkers are questions by the educator. In fact, the students' level of thinking can contribute to the synchronization with the level of use of questions by them. Duster (1998) emphasizes on the findings of the study, the strategies of educator questioning and the diversity of questions presented play their role in sparking creativity and high-level thinking amongst their students. The findings also show that most teachers use questions to motivate students (Dillon, 1982; Feldhusen & Treffinger, 1980; USDOE, 1980). However, seventy percent of these questions lead to fact-keeping questions (USDOE, 1980), referred to by Schiever (1991) as shrinking question.

Further, in case study by Brown and Wragg (1993) has also shown the relevance of questions and tasks with thinking. The findings show that educators use hundreds of questions each week, however, the types of questions need to be focused on as he finds the questions presented are diverse, some require short answers, and vice versa, which require students to think at a more complex level. But in the context of moving the minds of the students, educators often question what has been learned, and neglecting the question of attaining new knowledge. Thus, Mc Kenzie (1997) in his study has stressed that the skill of questioning is revealed from the beginning of the student development so that a solid foundation is formed to enable students to move their minds strategically and have the ability to think productively. In fact, the situation has also been emphasized in the study by Elder and Paul (1998) so that educators use questions that stimulate student thinking to enable them to develop effective thinking skills.

Gall and Rhody (1987) in their study of reading and comprehension of texts provide a clear picture that most teachers have the tendency to present more low-level in comparison with high-level cognitive questions. The use of more low-level thinking questions is not an offense but these questions only encourage students to recall and understand what is contained in the reading passage. As a matter of fact, even these two types of questions are not wrong to use. Factual or low-level questions are used to remember or recall basic facts, while high-level questions are used to promote high-level thinking. He stressed that it is very difficult for students to learn to think unless they are given the opportunity to respond to high-level questions. The use of more challenging high-level thinking questions will encourage students to express their opinions, discuss decisions, find solutions to problems, or generate new ideas on matters relating to reading content. Swarts (2003) argues that the more focused higher-order thinking questions should be used by teachers to promote high-level thinking among the students, but they should be guided and encouraged to make metacognition by reflecting on their thinking process to help aching the thinking skills at high standard.

This further relates to the study by Rafie (1998) which examines the extent to which the application of creative and critical thinking skills in Malay Language subject has found that majority of teachers (91%) have questions clearly and easily understood. However, the focus of most of the questions raised only at the low cognitive level of knowledge types (79%) and comprehension (81%). Teachers inadequately emphasis on application type questions, analysis, synthesis and evaluation. The difficulty level of the question also relates to the level of student

achievement. Data analysis for the achievement of each question points to the question of remembering the details is the highest question the percentage of students getting excelled which is 90% in comparison to 10% who failed. While questions that demands assessment is the top-level question that indicates only 15% of students aced this question compared to 73.3% who failed. This finding shows that students still have not grasped the skills to answer high-level questions, especially the assessment questions. Students are still unable to draw conclusions, rationalize, appreciate, and subsequently make judgments about the studied text. While questions recognizing the details are the easiest questions and can be answered well by students (Abd Halim and Maria, 2001).

Meanwhile, the studies on the cognitive level of the question whether in teaching and learning applications, or in curriculum materials, especially textbooks and workbooks, have been reviewed, on average proving the use of questions at a low level being the focused compared to questions at the high level (Guszak, 1967; De La Cruz, 1971; MarohainiYusoff, 1989; Noor RohanaMansor, 1996; Rawadieh, 1998). As for Noor Rohana (2005) in her study, also found that the percentage imbalance in the use of the question categories appears due to absence of a specific questions indicator to be followed as a guideline in the generation of questions leading to the use of questions which have no proper division among high-level questions and low.

Ergo, students do not get the necessary cognitive exposures and stimuli to further enhance their thinking skills that have led to the weakness of the students in answering the questions firmly, effectively and applying them in a life situation.

Similarly, in the study of language curriculum (Noor RohanaMansor, 2013), it has shown that aspects of the use of cognitive level diversity of questions have not yet reached the level of quality that can enhance the student's thinking skills accordingly to varying degrees of thinking, in fact, it is only limited to the scope of a stereotyped question. The input given is merely a disclosure to meet the requirements for comprehension exercises. The importance of fulfilling the actual aspects of the language education curriculum requirements for the purpose of meeting the needs and requirements of the syllabus, the objective of the examination and the realization of the content of theoretical ideas in the aspects of assessment and evaluation towards encouraging the behavioral change of student thinking to effective learning still need to be enhanced towards meeting the demands of a curriculum transformation that concentrates on thinking generation.

Hence from this scenario, the Ministry of Education Malaysia (KPM) has given serious emphasis on high-level thinking skills (KBAT) as a 21st century education element for the development and production of competitive human capital and high marketability. As the result, KBAT is now a priority in determining the success of education transformation as outlined in PPPM 2013-2025. The focus on high-level thinking is to empower students to master thinking skills that involve the ability to apply knowledge, skills and values in reasoning and reflection to solve problems, make decisions, innovate and create something (KPM (c), 2013). Students are also able to use existing knowledge or new and manipulate information until it finds a reasonable answer to the new situation. This action actually challenges students to interpret, analyze, and manipulate information in dealing with specific situations and solve problems in life (Newmann, 1990; Onosko&Newmann, 1994; Lewis and Smith, 1993).

The result is that there is need of a continuity education emphasis to higher education in addressing this. The concerns and capabilities of educators in generating diversity of types and difficulty levels of questions that triggered the ability of students' thinking skills to be

scrutinized and studied as a result of proving the extent to which this trust is in place and the need for continuous monitoring.

3. Research Methodology

This descriptive case study uses content analysis methods with a review code study instrument from Question Cognitive Level Models (Noor RohanaMansor, 1996 & 2004) which was built based on the cognitive domain theory framework by Bloom (1956) with four question model references from Sanders (1966), Barrett (1972), Santoz (1976) and Barrett and Pearson (1989) with modifications and enhancement of inputs in line with the need across curriculum questions. The instrument for this study was once again adjusted and synchronized by the taxonomic question used by the ministry (2013) that applies the Anderson Taxonomy as a result of the previous Bloom taxonomy. The subjects of the study consisted of a target group lecturer for a program of study identified by the School of Studies which required guidance for skills improvement for the generation of examination questions. This is necessary because along the process the majority of lecturers were away and recently resumed working so they still need continuous guidance to strengthen knowledge, skills and values in teaching and learning pedagogy especially in aspects of course assessment. Implementation of data collection involves intervention measures for the reinforcement of knowledge and skills of lecturers on the generation of questions through the Questions Generation Workshop and Schematic Answers and analyze the final exam that are prepared on post-workshop. Data analysis involves Reviewing and Marking procedures; Data Transformation; and Data Analysis Concepts. The data collected through research and assessment of the diversity of types and levels of difficulty of examination questions and reporting are made using simple arrangements to be understood by percentage to meet the need to answer the study questions.

4. Findings

1. Diversity of Type of Questions in Final Exam of Studies Semester

The results of the study exhibits the ability of lecturers to use the diversity of questions in the final exam questions are shown in the table below.

Overall Analysis Table of Questions Types

Question Types	Memory	Comprehension	Application	Analysis	Assessment	Creation	Total Questions
Amount (%)	242 (59 %)	121 (29 %)	25 (6 %)	19 (5 %)	5 (1 %)	0 (0 %)	412 (100 %)

Overall, 412 total questions have been evaluated from the twelve courses offered by the program for the semester 1, 2015-2016. The findings of the study show that from the five types of questions examined, only four types of questions have been identified. A majority of the questions, 59% were created of memory questions, 29% comprehension questions, 6% application questions, 19% analysis questions and 1% evaluation questions. No creations question was created for the entire program. The implication of this finding shows that the

questions are simple questions involving the reminder and understanding of facts and information from the text. Only 11% of questions involve the use of knowledge and identification of important ideas. As for the questions involving considerations and results, there are only five questions were found while questions related to the creation of new ideas from the study information were not tested on students. In order to meet the quality of questions and to provide students with diversity of thinking capabilities, questions need to be diversified and challenging their thinking. These questions only train students to recognize and remember the information learned. Hence, continuous quality monitoring needs to be carried out so that the assessment aspects of the program will reach the level of course offerings for the program being implemented.

The details of each course related to the following questions are stated in the following table.

Table of Diversity Questions Type
Full Course Details

Course	Diversity Questions Type						Total Questions
	Memory	Comprehension	Application	Analysis	Assessment	Creation	
1	20	18	4	5	0	0	47
2	41	12	0	1	0	0	54
3	9	16	0	0	0	0	25
4	17	11	1	0	0	0	29
5	22	16	0	0	0	0	38
6	18	3	0	1	0	0	22
7	7	1	10	1	2	0	21
8	39	7	0	2	0	0	48
9	5	9	3	0	0	0	17
10	36	10	0	5	1	0	52
11	19	9	7	2	0	0	37
12	9	9	0	2	2	0	22
Total Questions	242 (59%)	121 (29%)	25 (6%)	19 (5%)	5 (1%)	0 (0%)	412 (100%)

From this table we can see the details of all the courses assessed using memory and comprehension questions. Nevertheless, there are two courses that only use question with the types of memory and comprehension only for the entire question. Application questions are seen in five courses; analytical questions, eight courses cover it while for assessment questions only three courses cover it. For the question of creation, all the assessed courses do not test it. The details of this analysis shows the act of indifferent amongst question makers to adopt to the diversity of questions found in the taxonomy. The quality aspect of the question and the impact on student thinking implications from the use of these questions is not taken into account. As educators, they should pay attention to the philosophy behind the formulation of questions. The impact of the use of questions that has been enacted on the aspects of student thinking should be addressed. The questions were created not only to test students' understanding and

comprehension but were aimed at preservation of the quality of input generating questions and the production of excellent student minds.

2. Diversity Level of Questions in Final Exam Semester of Study

The findings of the analysis and research findings on the aspects of the use of varying degrees of difficulty of the questions have been obtained the following data.

Overall Table Analysis of Questions Difficulty Levels

Course	Difficulty Levels						Total Questions
	Low		High				
	Memory	Comprehension	Application	Analysis	Assessment	Creation	
Number (%)	242 (59 %)	121 (29 %)	25 (6 %)	19 (5 %)	5 (1 %)	0 (0 %)	412 (100 %)
Total	363 (88%)		49 (12%)				

The findings show that from a total of 412 questions assessed 88% of the questions were created at a low difficulty level which included questions of memory and comprehension. Only 12% of questions are created at a high level covering application questions, analysis and evaluation. There are no questions that test the creativity among students. This means that the quality of the questions used is low and does not test students' thinking ability at high levels. This finding also indicates that the questions produced are not challenging thus does not train students to think creatively with the application of knowledge that has been learned. The implication of the complexity of student thought can be educated and tested at a low level. Students' thinking skills are poorly tested and formed at high levels of thinking. High level questions have been emphasized by education ministries in the national education system with the aim of training students to move their minds and to think critically, creatively and innovatively to survive life after graduation. Hence monitoring and continuous improvement measures should be intensified and practiced by educators to ensure the quality of thoughtful graduates is synthesized from the program of study being enrolled.

Further, the following table is presented on the details of the data for each course that has been obtained in relation to the varying degrees of difficulty the questions that have been applied in the formation of the questions.

Table Analysis of Diversified Questions Difficulty Levels
Full Course Details

COURSE	Difficulty Levels						TOTAL QUESTIONS
	LOW		HIGH				
	Memory	Comprehension	Application	Analysis	Assessment	Creation	
1	20 (42 %)	18 (38 %)	4 (9 %)	5 (11 %)	0 (0 %)	0 (0 %)	47 (100 %)
2	41 (76 %)	12 (22 %)	0 (0 %)	1 (2 %)	0 (0 %)	0 (0 %)	54 (100 %)
3	9 (36 %)	16 (64 %)	0 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)	25 (100 %)

4	17 (59 %)	11 (38 %)	1 (3 %)	0 (0 %)	0 (0 %)	0 (0 %)	29 (100 %)
5	22 (58 %)	16 (42 %)	0 (0 %)	0 (0 %)	0 (0 %)	0 (0 %)	38 (100 %)
6	18 (82 %)	3 (14 %)	0 (0 %)	1 (4 %)	0 (0 %)	0 (0 %)	22 (100 %)
7	7 (33 %)	1 (5 %)	10 (48 %)	1 (5 %)	2 (9 %)	0 (0 %)	21 (100 %)
8	39 (81 %)	7 (15 %)	0 (0 %)	2 (4 %)	0 (0 %)	0 (0 %)	48 (100 %)
9	5 (29 %)	9 (53 %)	3 (18 %)	0 (0 %)	0 (0 %)	0 (0 %)	17 (100 %)
10	36 (69 %)	10 (19 %)	0 (0 %)	5 (10 %)	1 (2 %)	0 (0 %)	52 (100 %)
11	19 (52 %)	9 (24 %)	7 (19 %)	2 (5 %)	0 (0 %)	0 (0 %)	37 (100 %)
12	9 (41 %)	9 (41 %)	0 (0 %)	2 (9 %)	2 (9 %)	0 (0 %)	22 (100 %)
TOTAL (%)	242 (59 %)	121 (29 %)	25 (6 %)	19 (5 %)	5 (1 %)	0 (0 %)	412 (100 %)

The data from the tables clearly show that all courses are focusing primarily on synthesizing questions at low levels of memory and comprehension questions. In fact, there are even two courses that do not use high-level questions at all. The questions at the high level apply only to the following number: 6% application questions are applied to the entire question being studied whereby five courses use them; 5% analytical questions are used by eight courses; 1% evaluation questions are applied by only three courses using one or two assessment questions only; 0% creation questions are being used in formulating their questions. The implications of this finding indicates that the questions for the whole program of study are simple and not challenging the student's thinking. The effect reflects the students' thinking is not being tested in depth for high-level thinking as required by the ministry of education. Questions only evaluate students against what they have learned and do not educate students to use, apply, evaluate and create new ideas as a result of the learning they have gone through. The impact of this is serious because the mind of the students are not trained towards creative thinking, critical, innovative and out of the box.

The findings of these data have a serious influence on the quality of questions in terms of the use of questions-based difficulties that reflect the weaknesses among question makers to adopt questions with varying degrees of difficulty. The implication of this statement also explains the neglect of question makers on the aspects of developing the students' thinking skills that should be underlying and implemented across the education curriculum. It also contributes to the weakness of students produced from the program of study in order to meet the needs of the organization during industrial training and later on to face the reality of their lives. Additionally, this situation also contributes to the weakness of aspects of thinking skills among graduates as has been said over the years. Hence, academic leadership should seriously monitor this because it will affect the credibility of the graduates and academic realm as a whole.

3. Aspects of Strengths and Weaknesses in Assessment Context in UMT as well as Resolutions in Strengthening and Generating Quality Questions and Students Thinking Skills

Generally, in the context of evaluation at UMT, the assessed courses have followed the standards of the preparation of exam questions which cover the following aspects: the examination time allocation; the use of diversity types of questions; diversification of difficulty of questions; scoring provisions; question format; as well as technical writing. The findings of the study are presented in the following table.

General Table of Format to Generate Question

COURSE	PERIOD OF EXAMINATION	TYPE OF QUESTION/ NUMBER/ SPECIFIED MARKS			TOTAL MARKS
		OBJECTIVE	STRUCTURE	ESSAY	
1	2 HOURS	40 (40M)	5 (30M)	2 (20M)	90
2	2 HOURS	50 (50M)	3 (20M)	1 (10M)	80
3	2 HOURS	15 (15M)	9 (45M)	1 (15M)	75
4	2 HOURS	15 (15M)	12 (30M)	2 (35M)	80
5	2 HOURS	30 (30M)	5 (20M)	3 (25M)	75
6	2 HOURS	10 (15M)	10 (55M)	2 (30M)	100
7	2 HOURS	10 (20M)	9 (35M)	2 (20M)	75
8	2 HOURS	40 (40M)	6 (30M)	2 (10M)	80
9	2 HOURS	10 (10M)	7 (48M)	-	58
10	2 HOURS	40 (40M)	10 (45M)	2 (15M)	100
11	2 HOURS	30 (30M)	6 (30M)	1 (10M)	70
12	2 HOURS	15 (30M)	3 (15M)	4 (30M)	75

The findings of the study have identified that all courses provide time for two (2) hours for the final examination assessed. Questions raised include the question of Objectives, Structures and Essays under Sections A, B and C or Part I, II and III. Each section is allocated with a specific division of points. Various low and high-level questions have been adopted in generating questions. Format of the question are bilingual that are in Malay and English with specific instructions provided as well as specified fonts.

Nonetheless, from the details of the analysis, several issues have been identified which require monitoring and action from the university to maintain the quality of UMT evaluation. The following aspects need monitoring:

1. Period of Examination with Number of Questions Allocation

The entire course of the study program has set a period of two (2) hours to answer. It is coordinated with various types of questions and specific divisions namely Part A for objective questions; Part B of the structural question; and Section C, the essay question. There are courses using Part I, II and III. There are even courses that give only two sections of objective and structural questions. The issue is that the total number of questions given as well as the instructions to answer the number of questions in particular within 2 hours is inconsistent, depending on the question maker and no basic guidelines followed.

Based on the national education examination standards the following points should be followed:

- i. The total number of questions should be suitable for the examination time of either two (2) hours or three (3) hours depending on the course. Two hours of exams for a course of three (3) credit hours while a course worth four (4) credit hours of the test period is three (3) hours.
- ii. The objective question of choice, correct or false, and fill in the empty space, the time allocation to answer is 1.5 minutes per question.
- iii. The structured question with short answer of time allocation between 10 - 15 minutes per question and depending on the course.
- iv. Essay Question with long answer of time allocation between 20 - 30 minutes per question and depending on course.

Hence, the improvement and quality monitoring of questions and overall assessment needs to be done so that the validity and reliability of the examination inputs for each course conforms to the national education assessment standards.

2. Allocation of Marks and Total of Marks

The findings of the study have shown concern in terms of score allocation and total scores for certain courses. The data in the table shows objective questions that allocate 20 marks for 10 multiple choice objective questions and 30 marks for the same number of 15 questions. This explains the irregularity in the context of assessment scoring. In addition, the data also shows the full range of scores given from 70 scores to 100 percent. It is generally known that the UMT evaluation standard has allocated 60% marks for assignments as a carry mark and 40% for final examination. This diversity has created doubts in terms of validity in the context of scoring rather than the number of questions and times set. The synchronization and accuracy in terms of scoring with the needs of the number of questions answered along with the timing of the response shall be in accordance with the proper guidelines and standards that lead to the total and accurate total scores. Hence, continuous monitoring is necessary as a quality assurance in UMT evaluation management.

3. Technical Exam Format

The technical aspects of format writing in examination papers need monitoring and improvement in ensuring a basic and consistent standard is obeyed. This will involve the best technical input that also affects reading and avoiding confusion among the perceptions and comprehension of the students. Among the aspects that need monitoring are uniformity and synchronization in bilingual writing, simple, precise and clear instructions, and technical aspects of language in terms of grammatical formation and correct spelling, both in Malay and English.

Serious coordination and monitoring in this aspect will ensure the sustainability of UMT's evaluation quality.

5. Discussions and Suggestions

The findings have demonstrated that the correct data regarding the focus of the study on the use of the diversity of types and the difficulty of the questions that have been applied in formulating the final examination questions of the program. The diversity of questions is related to the difficulty level of the question whose impact affects students' thinking behavior in dealing with something. The questions at the low difficulty level will only provide students with the experience of recognizing and remembering information from the text without incurring their efforts to think with reason and mind. The questions at the high difficulty level greatly affect the ability to think of students because this is the exact point whereby the learned knowledge is applied to different situations. Students' ideas and thinking should be trained to think creatively, critically, innovatively and beyond the box to solve problems in real life. This recommendation has been emphasized by the education ministry for years and is still seriously focused on the aspects of high level of thinking that have transformed the nuance of national examination and education system. Ergo, the national institutions of higher learning should also extend the continuation of philosophy that is proposed for student's thinking skills so educated generation can really apply their thinking accordingly in real life. As a result of the findings, some suggestions are made to affirm on the use of different types and levels of questions in the preparation of examination questions in order to stimulate students' capacity of thinking.

Such recommendations include:

- a. Question preparation guidelines need to be established. This action can address the problem of questions being prepared that are inconsistent as well as to overcome the phenomenon that exists as a result of the study.
- b. Quality control over the creation of questions is strongly encouraged. Each question paper must be reviewed and specific attention should be directed to the suitability of items and difficulty of the items to be matched to the question format whether in terms of the division of marks, timeframes and correct grammar usage. It should involve the embodiment of an edited panel of academic professionals to ensure the best and effective question creation hence leading to the development of student intellectual skills.
- c. Courses, workshops, seminars and various forms of knowledge related to the input of teaching and learning in particular regarding the various aspects of assessment and evaluation which highlight the impact on student thinking should be continued, encouraged and expanded among academicians for the enhancement and continuous improvement of quality.

6. Conclusion

As the educators, mastering and appreciating knowledge in terms of theoretical and philosophical angles should be always practiced. The responsibility should be done with dedication to enable educated people to achieve the goals and aspirations of the nation's education philosophy. The ability of educators to adhere to the guidelines on preparing the question with full accountability can ensure the quality of the questions being produced also ensures the quality of teaching and learning, especially the aspects of the assessment are successfully carried out. As a result, UMT students will develop their intelligence towards excellence in knowledge and wisdom.

Hopefully the results of this research can be utilized by the academia for the improvement and strengthening of knowledge so that the effort done achieved God's blessing. Insha Allah.

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