

The Dark Truth of Question Item Designed for Final Set of Examination Paper in UiTM Country Side: An Analysis of Final Set of Examination Paper

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ABSTRACT

Decentralisation of UiTM final examination is one of the big agendas of UiTM in a near future. Decentralisation may take a long journey before everything is in a place. Therefore the paper aims to deliver and reveal some of the issues that need to be addressed and settled before and along the decentralisation process. One of the issues highlighted in this paper is the common mistake occurred in a question item designed of final examination paper. Interview and recommendation from the domain expert are also reported.

Keywords: *Decentralisation, Final Examination, Quality Assurance, Outcome Based Education, Information System*

Introduction

Students' final examination for every semester throughout UiTM's system is currently managed by Bahagian Hal Ehwal Peperiksaan (BHEPep) UiTM Shah Alam. To date, the number of branch campuses as well as offered programmes has expanded numerously. With such big number of branch campuses and offered programmes, BHEPep requires a practical and efficient method to oversee and manage final examination especially from variety of perspectives and angles such as logistic, cost, man power, scheduling and security. One of the suggested alternatives is decentralisation of examination management which will be practised by the whole UiTM system. (Unit Hal Ehwal Kurikulum, 2012).

Decentralisation of examination management is a practice whereby the BHEPep of main campus in UiTM Shah Alam, will recognize and give solely trust for all branch campuses to manage their own examination management which include examination scheduling, final examination question generation, and security measurement. However, the decentralisation of final examination may invite issues related to the quality assurance of item assessment in terms of validity, reliability, fairness and consistency of the final set of examination questions. According to UHEK (2012), the 164th of UiTM Senate Meeting on March 2012 has agreed upon that whenever the decentralisation of UiTM's final examination is taken into place, the standard quality of final set examination questions must be adhered to.

Therefore, the paper aims to deliver the findings of standardisation format as well as quality standard of final examination questions across 16 faculties at UiTM country side.

Bloom's Taxonomy

Creating test or examination question is not a simple task. Questions play a significant role for its not only to test student's comprehension on a certain topics, whilst it helps students to improve their thinking ability (Eizan & Affendi, 2011). The construction of question should begin from the lower level of cognitive which tests the basic knowledge and comprehension until the higher level of cognitive which requires student to analyse, synthesise and evaluate according to the given problem. These varieties of complexity are believed to help students to become good students that possess good thinking ability (Sanders, 1966).

To ensure the construction of questions comply with the requirement and objectives of outcome-based education (OBE) and UHEK, hence produce better output, six (6) domain levels in Bloom's Taxonomy can be applied during constructing question sets. The domain levels are depicted in Figure 1 below.

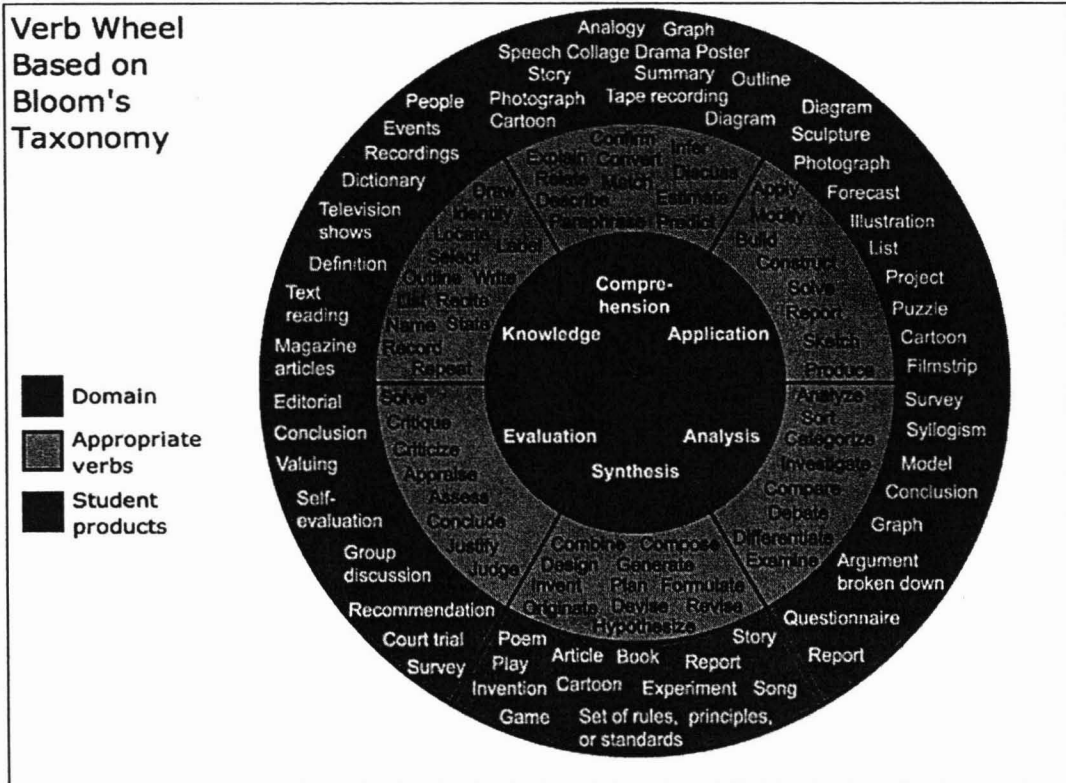


Figure 1: Bloom's Taxonomy Verb Wheel (source: <http://mysciencelessons.blogspot.com>)

Each level of cognitive domain in the taxonomy consists of several keywords or also known as action verb. Students look for the keywords once they read the question before start thinking and then write the answer. Action verb shows the difficulty level of each question. According to the Bloom's taxonomy, **Knowledge** is the lowest level while **Evaluation** is the highest level of difficulty which requires student to put more effort to answer the question.

Methodology

In this research context, UiTM will be the organisation of interest. The primary data is gathered through interviews for each of case study. These interviews are conducted to obtain information and understanding of issues relevant to the general aims and specific questions of the research. The data are collected from different views of departments that are related to the examination field. The respondents are:

Table 1: List of Interview's Respondents

Area	Name	Roles
UiTM	Prof. Madya Dr Roziah Mohd Janor	Director of UHEK
	Prof. Madya Dr Haji Ahmad Mazli Muhammad	Ketua Pentaksiran dan Penilaian UHEK
Bahagian Hal Ehwal Peperiksaan (BHEPep)	Puan Azida Azmi	Director of BHEPep

Secondary data which are the findings from reading of published and unpublished articles as well as other previous researches will be applied in order to comprehend the current problems and situations which may occur similarly to the UiTM's situation and this gives the opportunity and advantages on solving these problems. Bloom's Taxonomy are taken into the consideration in analysing the examination papers as shared by the research domain expert as shown in Figure 1 above, each faculty in UiTM is required to use Bloom's as a guideline in construction of an item for examination papers.

The academic transformation in UiTM indicates the effort of UHEK and BHEPep in providing the initiative and innovation from time to time with the outstanding accomplishment. One of the academic transformation efforts is to develop the Item Bank System (IBS). The aim of IBS development is to ease up the lecturer's task in constructing and contributing question item for final examination online. However, the item constructed might or might not follow the guideline provided by UHEK and does not comply to the OBE requirements. An analysis of procedure has been conducted to verify the construction of item question. This procedure was divided into four (4) phases.

1. Paper revision based on faculty

The tasks were divided to five (5) business analyst (BA). Each BA reviews each of the examination papers for each course code from the chosen faculty. The papers were selected based on the final examination of the previous three (3) years.

2. Revise the item designed and structured

BA review the examination paper solidly based on:

- Part of questions
- Type of questions
- Marks for each questions
- Symbols used in questions
- Diagram/figures/tables/graphs/appendices
- Others related

3. Identify the variety and the differences of question type consists in examination paper

BA records and writes down any differences identified and detected during the revision above so that all the information will be in a good presentation.

Result and Discussion

The findings of the data analysis and interviews conducted as per discussed in the research methodologies shows several weaknesses in standardisation format of the final examination questions in most of the programmes and courses. The research identified seven (7) main areas of common mistake in final examination question from several programmes which has been confirmed by the domain expert as a format that does not comply with the BHEPep final examination standard, or rather due to unavailable of standard format for those particular types of question. The seven common mistakes in creating final examination that the study has identified are;

1. A question item consists of more than one action verb.

Example: List and Explain FIVE (5) functions of a media buyer. (marks)	(15)
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According to Unit Hal Ehwal Kurikulum (2012), a question may have only one action verb (based on taxonomy level).

2. A question mark is not consistent and suitable with the action verb.

Example: Explain FOUR (4) characteristics of democracy. (marks)	(25)
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Marks should be given based on the course '*Jadual Spesifikasi Ujian*' (JSU).

3. *Multiple choice question (MCQ) answer options are not standardised.*

Example:

PART A

1. All of the statements below indicate that firms change its technology mix for a variety of reasons EXCEPT:

- a) The product line is quickly falling behind its competitors.
- b) A new competitor enters the market and changes the dynamics of the industry.
- c) R&D presenting its latest product to the firm's CEO for approval.
- d) The firm discovers that its work processes is not as efficient as those of its competitors.
- e) The firm has forecasted that its current product is at the end of its technology cycle.

Figure 2: Example of MCQ

There is no standardisation in the number of answer for MCQ question and character list for each answer. There is a case where a MCQ question contains 6 answer options to choose from. However, based on this finding, the domain expert had agreed to limit the number of answer to 4 to 5 options with a standard character list to {A, B, C, D, and E}

4. *A question item consists of 100 marks.*

Example:

QUESTION 1

Based on the enclosed drawing (AP/BCM613/JAN2013/PG1-PG4), you are to take-off the demolition works for the following area:

a) Demolition Works
Ground Level

- i) Cafeteria/Kitchen
- ii) Toilet/Cafeteria/Abkutan
- iii) Staff Rooms
- iv) Meeting Rooms
- v) Staff Room 1
- vi) Staff Room 2
- vii) Pantry
- viii) PJJ Admin Office
- ix) Room A
- x) Room B
- xi) Executive Office Room
- xii) Program Head 2
- xiii) Toilet/Bath/Admin office
- xiv) Admin Office
- xv) Filing and Storage
- xvi) Dean's room
- xvii) Program Head 1
- xviii) Men's Prayer Room
- xix) Security Office
- xx) Men's Rest Room
- xxi) Circulation Area

(100 marks)

Figure 3: Example for Long Essay Item

According to Unit Hal Ehwal Kurikulum (2012), each and every item should have its own marks which are based on the course 'Jadual Spesifikasi Ujian' (JSU). The example of question as shown in Figure 3 above should be avoided as it is no mark allocated for each item rather than giving the total marks of 100.

5. *No standardisation in formulating a nested question*

Example:

The global awareness on saving the natural resources and environment has led to the development of green buildings. The green buildings are also intelligent buildings.

- a) Define the terminologies of 'Intelligent Building' and 'Green Building' (5 marks)
- b) Describe the characteristics which differentiate the above mentioned buildings. (8 marks)
- c) Describe briefly the four dimensions of intelligence in buildings:
 - i) Building Automation (3 marks)
 - ii) Office Automation (3 marks)
 - iii) Advanced Communication (3 marks)
 - iv) Responsiveness to Changes (3 marks)

} Tier 1

} Tier 2

} Tier 3

Figure 4: Example of Nested Question

The study found a question with unlimited nested question which indicates that there is no standardisation in formulating a nested structure question. Based on the findings, the domain expert agreed to limit the number of nested in a structured question up to 3-Tiers as shown in Figure 4.

6. *An item question's marks consists of decimal points*

Example: Define computer application. (marks)	(12.5)
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The total marks for each item may not have decimal as in the example above. Domain expert had agreed to limit the marks for each question item with NO Decimal number.

7. *Final examination paper with difference parts of question, but with the same types of question*

Example:

Part A: Short Essay (marks 10 – 15)

Part B: Short Essay (marks 15 – 20)

The above example should be avoided as each part of question normally indicate the different types of questions.

The seven major common mistakes which normally found in final examination paper in most of the courses in UiTM indicate the weaknesses of enforcement towards the standardisation of creating question item in final examination set paper, or there is no standard format that the lecturer can follow in developing a question. In order to support the decentralisation examination with the commitments for validity, reliability, fairness and consistency of the examination set paper, this research strongly agree that the common mistakes as discussed above should be mitigated and a thorough training in developing a standard question item according to format must be implemented.

Conclusion and Recommendation

Developing item question for final examination that follows OBE guidelines as well as comply with the UHEK and BHEPep requirement is very crucial to every courses, programmes, faculties and university. Quality standard, final set examination formatting standard and outcome-based education standard must be adhered to and addressed to ensure the university's competitiveness among the other higher education institutions in Malaysia. Although it is a big challenge for UiTM to manage a batch of examination papers for the whole campus, including the main campus, as the UiTM served the education for a thousand of students with many faculties, campuses and countryside, the authors believe that with the implementation of systematic information system that cater the information dissemination on examination, UiTM will be capable to manage and run the decentralisation of final examination. The authors also suggest that before the information system come into place, workshop and training which focus on constructing an item for examination paper must be conducted to help lecturer in designing and preparing examination papers that follow the OBE requirements and compliant to the UHEK and BHEPep guidelines.

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