1st WORLD CONGRESS ON INTEGRATION & ISLAMICISATION OF ACQUIRED HUMAN KNOWLEDGE

FWCII 2013

Theme:

Constructing the Alternative Paradigm of TAWḤĪD

Dates:

23 - 25 August 2013

16 - 18 Shawwāl, 1434

Venue:

Prince Hotel & Residence, Kuala Lumpur

Garden of Knowledge and Virtue

FWCII 2013: An Overview

The International Islamic University Malaysia was established by the Malaysian Government in 1983 to provide, for the younger generation of Muslims from all over the world, an Islamic alternative higher education in which knowledge would be pursued and developed on the basis of the worldview and epistemology of TAWHID, instead of the secular paradigm of human knowledge which divorces:

a) Human reason from DIVINE revelation, guidance and wisdom;

b) Professional disciplines from morality; and

c) Knowledge of physical, human or social realities from metaphysical, religious and spiritual TRUTHS.

The necessity to construct and disseminate the acquired human knowledge on the basis of the TAWHIDIC epistemology is anchored in the Divine commandment to seek knowledge in the name of Allah, God Most Gracious, and to use the God-given Intellect ('Aql) as well as all the God-given natural resources and bounties in accordance with the Divinely-prescribed purposes and ends.

In its thirty years history, IIUM has tried to fulfill this sacred mission, together with like-minded institutions, organizations and individual scholars from different parts of the world. Today, as the world is witnessing more and more symptoms of systemic collapse of conventional economic, political and moral structures – with planet earth itself facing unprecedented ecological crises – there is a real and pressing need to bring together Muslim scholars, scientists, intellectuals and professionals from all over the world, who share the commitment to the paradigm of TAWHID and the urgency to develop better or alternative solution approaches, theories, perspectives or ideas in the natural and physical sciences, social and human sciences, humanities, applied sciences and technology and medical sciences, based on the God-given paradigm.

A World Congress in this regard is being held for the first time by IIUM at this very critical juncture in the history of modern civilization, and we, at IIUM, fervently hope to be able to gather 300 Muslim scholars and experts in the five major branches of acquired human knowledge in this first-ever Congress.

Objectives of The Congress

- To gather Muslim scholars, scientist, academics, professionals and experts who are or have been involved in the project of integration or IOHK from all parts of the world, to mutually benefit from each other's works, findings or products.

- To forge new and transnational strategies to offer Tawhidic paradigm discourse and intellectual constructs as constituting complementary and/or alternative paradigms of human knowledge towards the reconstruction of Muslim society, culture and civilization, beset by its own internal malaise, as well as the reform of contemporary secular humanistic world disorder.

- To showcase IIUM's achievements in terms of teaching, research and publications, after three decades of its existence, in fulfilling the Mission of "Islamisation of Human Knowledge" (IOHK) as stated in the Constitution (Memorandum of Association) of the University.

- To position IIUM internationally and locally as the major Reference Centre for IOHK and related issues.

A RASCH Analysis of Indicators for the Integration of Knowledge in the Curriculum Among Academia at the International Islamic University Malaysia.

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Abstract

A scale of indicators for the Integration of Knowledge (IOK) is developed to evaluate the accomplishment of IOK among academics at International Islamic University Malaysia (IIUM). The function of the study is to identify and validate the dimensions or construct in the scale that will reflect the IOK at IIUM. From the literature and focus group discussions there are seven notable constructs namely i) academics insights on IOK; ii) IOK in the content of a subject matter; iii) IOK integration in teaching and learning process; iv) IOK in the evaluation of coursework; v) resource person for IOK integration; vi) academic products of IOK; and vii) overall student's improvement. The study adopted self constructed instrument. The validation and reliability of the instrument involved pilot study and also panel of experts at the Institute of Education. The study employs a survey to collect data from a purposive sample of academics from different faculties at IIUM. A sample of 306 academics was involved in the study. RASCH analysis was

used to calibrate the items as well as providing statistics such as item difficulty, fit statistics and reliability. jjThe findings from RASCH analysis show that i) all items on the scale are the same as the construct being examined; ii) there are sixty five items (65) with fit item that estimates seven variables namely, agreement with the IOK, the practice of IOK in the content, the practice of IOK in the teaching and learning strategies, the practice of IOK in the assessment, the resource person for IOK, the outcome of IOK based on the product, and the emphasis of positive student's development; iii) there are five items B6-5 (my product of IOK is book),itemB3-17 (in my teaching and learning process, I integrate IOK through games), item B3-13 (in my teaching and learning process, I integrate IOK through patching), item B6-6 (my product of IOK is proceeding), item B4-4 (in the evaluation of my coursework, the IOK is emphasized in Colloquium). While the easiest item is item B1.1 (I believe that IOK is an important mission of IIUM). The study suggests two versions of the scale of indicators of IOK as practiced by academics as to reflect the undergraduate and post graduate programme and curriculum.

Keywords: Integration of Knowledge, RASCH analysis, Indicators for IOK, Curriculum

Introduction

In July 1983, International Islamic University Malaysia (IIUM) was established based on the recommendations of the First World Conference on Muslim Education held in Mecca in 1977. IIUM has been committed to the integration of Islamic values with the modern fields of knowledge, which later became the core of its vision and mission. Indeed, Islamization of Knowledge (IOK) has become IIUM niche area, which sets it apart from other universities in Malaysia. In the implementation of the ideal of Islamization, IIUM is unsurpassed by any other institution in the world. This has been supported by the study conducted by Sskemanye, et.al, (2007) in analyzing the experience of IOK at IIUM. One of the findings of the study suggests that there are some aspects of Islamization works that is actively being practiced by the academic staff of IIUM is the integration of Islamic perspective into the University curriculum. This is one of the strategies to that has been outlined by the University to achieve its vision and mission of Islamization. However, there is a need for a specific mechanism to measure this strategy since the integration of Islamic perspective has become one of the key performance indicators (KPI) in the University Balance Scorecard Framework, which need to be monitored. With that urgent need in mind, the purpose of the proposed study, therefore, is to develop a mechanism or indicators that can be used to evaluate the integration of Islamic perspective or Islamization into the University curriculum. Focus will be on the identification of the various specific constructs and dimensions that define the work of Islamic

values integration into the curriculum done by the different individuals and group in their Islamization efforts in different Kulliyyahs of IIUM.

Conceptual Framework

Curriculum as known is an important component in education, it is crucial, as it determines the way of how education process should take place. Taba (1962) defines as a plan for learning and composed of certain elements. The curriculum comprise of aim, contents, method and evaluation. That each of these elements is related to the others and that, therefore, decisions regarding any of them are dependent on decisions made by the others. The change in the element of "contents" for example, will influence to the other elements (aim, method or evaluation). The conceptual framework of this study based on Figure 1.1 shows the conceptual framework of this study.
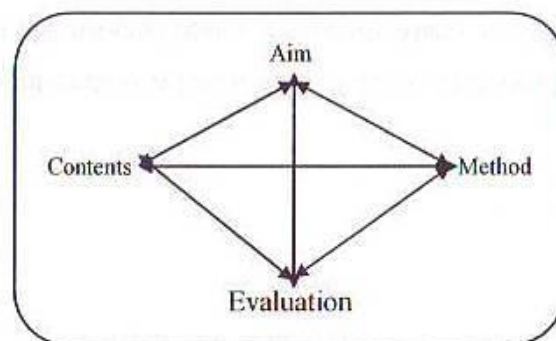
Figure 1.1: The Conceptual Framework

The curriculum should be designed towards reality context. Hence, studying on society and culture is necessary to determine the goals and emphasis of education how it should be in order to play the role in relation to all aspects of cultural and social structure, demographic, economic, politic, and social, as well as ideological and spiritual. Furthermore, it is also necessary to analyze some of theories of learning and the concept of human development. Through analyzing on the style of learning of the students and the development of their physical, mentality and intelligence, this matter will help determine the contents and subject matters or organization of knowledge into what extent the content of curriculum should be.

Nevertheless, religious dimension should be considered as framework, and in this relation, Islam should be a main frame of reference. Hence, involving religious aspect in designing curriculum to be a special character in Islamic curriculum, and makes it fundamental different with the Western curriculum. In Islamic community (Ummah), Islam is not religion only but also as a way of life (Al-Faruqi, 1982).

Islamization of Curriculum

Some basis or the fundamental things in designing Islamic curriculum include religious-base, philosophical-base, psychological-base and sociological-base.

i. Religious-base means positioning Islamic teaching as guidance and main references in designing curriculum;

ii. Philosophical-base includes philosophy of nation, philosophy of national education, and another philosophy in general, and also in special context relate to education.

iii. Psychological-base, concerning with phases of children development physically, biologically or psychologically such as maturity phase, talent, emotion, interest, needs, curiosity and capability; and

iv. Sociological-base, is contextualizing curriculum with the needs of life globally or the needs of life in special context within Islamic community, whether pertaining with social system, cultural progress, development in realm of knowledge, science and technology, ways of thinking, tradition and law (al-Syaibany, 1983. p. 380-385).

Integration and Islamization of Knowledge (IOK), or more specifically Islamization of curriculum in relation to subject matters or disciplines was to be an agenda and one of the goals of IOK as cited by al-Faruqi (1982), is to "recast some twenty disciplines in accordance with the Islamic vision" (1982, p. 14). In such restructuring curriculum, seemingly integrated approach was a model, and it is by putting all disciplines into the main corpus of Islam. In this sense, al-Faruqi suggested to present the subject of Islamic civilization to be the 'basic' or 'core' program for all university students, regardless of their majors or professions. It must be learned throughout four years with the following stages.

i. In the first year, to learn the principles of Islam as essence of Islamic civilization.

ii. In the second year, to learn the historical achievement of Islamic civilization as manifestations in space-time of the first principles of Islam.

iii. In the third year, to learn about how Islamic civilization compares and contrasts with other civilization in essence and manifestation.

iv. In the forth year, to learn about how Islamic civilization is the only viable option in dealing with the fundamental problems of Muslims and non-Muslims in contemporary world (Al-Faruqi, 1982).

Similar to Wan Daud (1998) stressed the subject of Islamic civilization is to be a basic and compulsory taught, especially in the university level. Hence, al-Attas propounded more detail of some subjects to be taught in the higher education level. The subjects are including:

i. Fard A'in (Religious Sciences); Ulumul Qur'an, Ulumul Hadith, Syari'ah, Theology, Metaphysic and Linguistic Sciences, and

ii. Fard Kifayah, this category of science is divided into eight broad disciplines; human science, natural sciences, applied sciences, technological sciences, comparative religion, Western culture and civilization, linguistic sciences: Islamic languages, Islamic history (Wan Daud. 1998).

Principally, Islamic curriculum as perceived by Muslim scholars in general should represent towards religious and akhlak dimension. It should be actualized in the fundamental components of its curriculum; aim, content, method and evaluation, because the ultimate goal of education in Islamic worldview is to internalize Islamic value or akhlak (the noble attitude) through Islamic approach. Hence, al-Syaebany (1983) explained that practically, education not just teaching subject matter of religious knowledge (naqly), but also acquired knowledge (aqly) altogether in comprehensive manner and balance. As such, the characteristic of Islamic curriculum is "comprehensive" and "balance", and also detach from the dichotomous conception and ambivalence in knowledge and curriculum" (al-Syaebany, 1983), and in turn the curriculum is designed in integrative manner.

Islamization at HUM: The Integration of Islamic Values in the University Curriculum

The most fundamental problem facing the Ummah today is the problem of "confusion and error of knowledge" (al-Attas, 1993; Wan MohdNor, 1998). Having become estranged from the intellectual and cultural legacy of Islam, today's Muslims are incapable of making any significant contributions to human knowledge in the physical as well as in the human sciences. Unable to create and innovate solutions to contemporary human problems in a way that is compatible with their Islamic worldview, Muslims worldview have ended up as passive consumers particularly of ideas coming from the dominant Western civilization. Unfortunately, Western knowledge is not neutral as it is infused with secular of "religious and cultural presuppositions, reflecting the consciousness and experience of Western individuals" (Wan Mohd Nor, 1998: 291).

Any science having foregoing as its fundamental presupposition is directly opposed to the worldview of Islam. For the worldview of Islam is based on tawhid, the belief in Allah. In this

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worldview, the role of human is being a khalifah (vicegerent), whose sole purpose is to serve Allah, which entails acting in accordance to the Divine will. Contemporary Western knowledge that neglected and opposed the fundamentals of the Islamic worldview, has failed to lead human to his role and ultimate goal. Instead of enlightening and leading human to the good and useful, it has only managed to create doubt and confusion in the Muslim minds. This confusion has exacerbated the contemporary Muslim Ummah intellectual barrenness, aggravating its political and economic emasculation.

In resolving this problem, Muslim intellectuals have called for a process of "Islamization", "Islamicization", or "de-Westernization" of contemporary (Western-dominated) knowledge. This would ensure that Muslims accept and adopt only those of contemporary knowledge that are not in conflict with the worldview of Islam (Husain & Ashraf, 1979). The process of Islamization, according to one of its foremost advocates, is aimed at providing "methodological schemes that may enable Muslims to see through, and practically overcome, longstanding confusion, without losing their religious and cultural authenticity, nor depriving themselves of whatever is good and useful from other intellectual and cultural sources" (Wan Mohd Nor, 1998: 291).

This process has important implications epistemologically, in the individual, personal and existential sense, as well as in the collective, socio-historical sense. It involves, as its foundations, subjecting the underlying principles and methods of the contemporary Western knowledge to some "Islamizing formula". This formula basically involves two processes which to be undertaken simultaneously: 1) Isolating the underlying philosophical concepts that make up Western culture and civilization from every branch of contemporary day knowledge, and 2) Infusing key concepts and elements of the Islamic worldview in every branch of the relevant sciences.

IIUM is one of the pioneer universities that declare its commitment to this process as Islamization of knowledge is a central element in its Philosophy. In line with this philosophy, IIUM's vision is stated as follows:

1. Revitalizes the intellectual dynamism of Islam and the Muslim Ummah;
2. Integrates Islamic revealed knowledge and values in all academic disciplines and educational activities;
3. Seeks to restore a leading and progressive role of the Muslim Ummah in all branches of knowledge for the benefit of all mankind; thereby,

4. Contributing to the improvement and upgrading of the qualities of human life and civilization

In preparing to achieve this vision and resolving the problem of confusion among the Muslim Ummah, the integration of Islamic values in all academic disciplines has become an important task that the IIUM academic staff has to fulfil. This task paves the way for the development of an Islamic epistemology, the creation and progress of Islamic knowledge and sciences, consequently realizing the whole formula of Islamization. Thus, the study would help IIUM in its endeavours to monitor and enhance its Islamization works, particularly the Islamic values curriculum integration amongst its community.

Statement of problem

From her inception in 1983, the IIUM has been committed to the integration of values with the modern fields of knowledge, which later became the core of its vision and mission. Today, Islamization and integration have emerged as niche areas of the IIUM. A previous study has found that there are various phases and orientations of the implementation of IOK at the IIUM (Ssekamanye et.al, 2007). The study also indicates that the tolerant atmosphere in the IIUM has encouraged many scholars and staff to use their own approaches of Islamization, IIUM academic staff also integrates Islamic values into the University curriculum in different ways. However, the problem is in evaluating these various ways of integrating Islamic values into the University curriculum. This evaluation is important as it helps IIUM to identify and monitor the specialization, and the areas of specialization that need to be improved with regards to the Islamic values integration.

Research objectives

The aims of the study are to:
1. Identify the constructs and dimensions that represent the works of integration of Islamic values in the curriculum at the different Kulliyyahs of IIUM.
2. Develop indicators that can be used to measure the works of integration of Islamic values in the curriculum by IIUM in its Balanced Scorecard Framework.

Research questions

1. What are the constructs and dimensions of the integration works of Islamic values in the curriculum done at the different Kulliyyahs of IIUM?

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2. What are the indicators that can be used to measure the Islamic values integration in the curriculum?

Significance of study

The findings of the study will benefit the IIUM community as the study aims to develop indicators that can be used to measure the integration of Islamic values in the curriculum among IIUM academic staff. These indicators are essential as they are the yardstick in evaluating and monitoring the progress of Islamization works in IIUM. It also enables IIUM to identify the lack of Islamic values integration or weaknesses in certain areas of specialization so that appropriate strategies can be developed to further improve these areas in the future.

Methodology

The study employed a mixed method approach as it combines the qualitative and quantitative methods of data collection and analyses. Hence there are two phases in the study. The first phase of the study is exploratory in nature. At this stage the researchers conducted a focus group interview in each kulliyyyah to gather preliminary feedbacks to address the first objective of the study, that is, to identify the constructs and dimensions that represent the works of integration of Islamic values in the curriculum at the different Kulliyyahs of IIUM, focus group discussions (FGD) were conducted in six kulliyyahs namely Kulliyyah of Engineering, ICT, Laws (AIKOL), Economics (ENM), IRKHS, Sciences. Each FGD lasted about forty minutes to an hour and involved about five to six lecturers from each Kulliyyah. Results of the focus group interviews were analyzed to identify the recurrent patterns. The patterns were transformed into constructs and dimensions, which was used in the development of the survey items for the second phase of the study.

The second phase of the study employed the survey method. A survey is used to gather information on the Islamic values curriculum integration done by all IIUM academic staff. The survey questionnaires were developed from the first phase of the study. A random sampling was utilized to choose the samples of the study. A sample size of 306 academic staff was selected as shown at Table 1. The population of the study was all IIUM academic staff. The data collected were analyzed using a Rasch measurement model analysis. The developed indicator will be useful in guiding the practice of integrating Islamic values in the curriculum.

Table 1

The Sample Size

No	Kulliyyah	No of Respondents
1	Engineering	36
2	Institute of Education	30
3	Sciences	28
4	Medicine	24
5	Economics	17
6	IRKH	37
7	Dentistry	22
8	Architecture & Environment Design	15
9	Law	9
10	Allied Health Sciences	20
11	ICT	7
12	CELPAD	61
Total		**306**

Instrumentation

i) Interview Protocol.

The interview questions in the protocol was developed within the components of curriculum such as AGO (aims, goals, objective), content & learning experiences, teaching and learning strategies, materials and activities, evaluation techniques and the dimensions of curriculum design (scope, sequence, continuity, integration and balance). The FGDs were transcribed and a total of seven broad themes were generated guided by the first objective of the study, which are, perceptions toward IOK, subject content, teaching and learning process, evaluation of coursework, resource or referent, IOK products and students' improvement. These themes were later used as the dimensions in the survey questionnaire.

ii) Survey Questionnaire.

The questionnaires of this study consist of 65-items. It is divided into two sections. Section (A),elicits demographic information about the respondents. The respondents were asked to state the following: Gender, Kulliyyah, Nationality, Post, and year of service. Section (B), was consists of seven variable namely: B1 (Believe of Islamization of Knowledge), B2 (Content), B3 (Teaching & Learning Process), B4 (Evaluation), B5 (Resource person), B6 (Product), and B7 (Emphasize on the Positive improvement of student's) as mention on Table 2. All of the items for section B1 to B7 are measured by the Likert-type scale. In this study, the questionnaires were used to collect primary data in consideration for the availability, accessibility and reliability of the data itself.

Table 2

The distribution of item

Code	Variable	Distribution of Items	Total
B1	Belief in Islamization of Knowledge	B1.1, 2, 3, 4, 5, 6 and 7	7
B2	Content	B2.1, 2, 3, 4, 5, 6, 7 and 8	8
B3	Teaching & Learning Process	B3.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19	19
B4	Evaluation	B4.1, 2, 3, 4, 5, 6, 7,8 and 9	9
B5	Resource person	B5.1, 2, 3, 4, 5 and 6	6
B6	Product	B6.1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11and 12	12
B7	Emphasis on the Positive improvement of students	B5.1, 2, 3, 4 and 5	5
Total			**65**

Pilot Study

A pilot study was conducted on 18 academic staff at Centre for Foundation Studies. The purpose of the pilot study was to determine the clarity in instrument and to test the reliability of the set of items in the questionnaires. The reliability of the instrument was established using a Rasch Measurement Model. Table 3 shows the person reliability was 0.97, and item reliability was 0.93, which indicates that the instrument was reliable. Based on the above reliabilities value provided, none of the items was deleted. All items used in the pilot study were used for actual study.

Table 3

Reliability in Pilot Study

PERSONS	18 INPUT		18 MEASURED		INFIT		OUTFIT	
	SCORE	COUNT	MEASURE	ERROR	IMNSQ	ZSTD	OMNSQ	ZSTD
MEAN	180.6	65.0	-.22	.16	1.02	-.1	1.03	-.1
S.D.	44.7	.0	.88	.03	.40	2.0	.48	1.7
REAL RMSE	.16	ADJ.SD	.86	SEPARATION	5.45	PERSON RELIABILITY		.97

ITEMS	65 INPUT		65 MEASURED		INFIT		OUTFIT	
MEAN	50.0	18.0	.00	.32	1.00	-.1	1.03	-.1
S.D.	16.9	.0	1.34	.14	.57	1.5	.77	1.6
REAL RMSE	.35	ADJ.SD	1.30	SEPARATION	3.73	ITEM	RELIABILITY	.93

Data Analysis

The Rasch analysis was used to analyze the quantitative data. WINSTEPS 3.63.0 a Rasch model computer application was used to estimate the logit (log odds unit) values of the item and person measures, as well as to determine the tenability of the Rasch model and the reliability of the item and person measures (Linacre, 2005). Rasch analysis was selected for several reasons. First, person and item measures derived are values in nature in which the unit intervals between the locations on the person-item map have consistent values (Bond & Fox, 2001). Second, item fit (Infit& Outfit). Third, unidimensionality. Forth, reliability for item and person (Bond & Fox, 2001).

I. Constructs and Dimension of IOK

This section will answer research question 2) What are the constructs and dimensions of the integration works of Islamic values in the curriculum done at the different Kulliyyahs of IIUM? and research question 3) What are the indicators that can be used to measure the Islamic values integration in the curriculum?

This study intended to investigate the evaluation of Islamic integration in the academic curriculum at IIUM. A Rasch analysis was employed in this study to ensure the validity and unidimensionality of the measurement. Information of the academics' staff perceptions toward IOK at IIUM is indicated by the Item Map that presents an estimate of item measure on the latent trait on a common logit scale with the measure of item difficulty.

PERSONS MAP OF ITEMS
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  1   +
      .#### 3|
     .##### |3 B3.13   B3.17   B4.4   B6.5   B6.6
      .##### | B2.3   B2.4   B2.6   B5.2   B5.4   B6.10   B6.2   B6.4
                  B6.7   B6.8   B6.9
        #### | B3.12   B3.14   B3.15   B3.16   B4.3   B4.7   B4.9   B6.3
     ####### | B1.5   B2.5   B2.7   B3.11   B3.18   B4.2   B5.1   B5.3
                  B6.1
   ######## | B2.3   B3.19   B3.3   B4.5   B4.8   B6.11
  0 .######## M+M B1.6   B2.2   B3.6   B3.7   B4.1   B6.12
.############ | B3.10   B3.8   B5.5
     ##### | B3.9   B4.6
   .####### |
     ##### | B2.1   B3.2   B3.5
    ###### |3 B1.3   B3.1   B3.4
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B6-6 (*My products of IOK are: Proceeding*), measure = 0.73, and Item B4-4 (*In the evaluation of my coursework, IOK is emphasized in: Colloquium*), measure = 0.71. Moreover, the item measure and person measure in the scale is well-targeted for this respondents and items, with the mean of person measure = .04, and mean of item measure = .00. The easiest item to endorse agreement to is Item B1-1 (*I believe that Islamization of Knowledge is: An important mission of IIUM*), item measure = -2.22. The persons' measure of ability on the steps span was7 (seven) logits (from-2.72 to 6.92), while the item measures of difficulty only span was 3 (three) logits (from -2.22 to 0.78).

Table 11

Item Measure

Item entry	Measure	Item entry	Measure	Item entry	Measure
53 (B6-5)	0.78	51 (B6-3)	0.40	21 (B3-6)	-0.03
32 (B3-17)	0.76	31 (B3-16)	0.37	25 (B3-10)	-0.11
28 (B3-13)	0.75	14 (B2-7)	0.34	23 (B3-8)	-0.14
54 (B6-6)	0.73	26 (B3-11)	0.33	48 (B5-5)	-0.19
38 (B4-4)	0.71	44 (B5-1)	0.32	24 (B3-9)	-0.26
47 (B5-4)	0.62	33 (B3-18)	0.32	40 (B4-6)	-0.26
55	0.60	46	0.32	8	-0.51

14

(B6-7		(B5-3)		(B2-1)	
11 (B2-4	0.52	12 (B2-5)	0.30	17 (B3-2)	-0.59
56 (B6-8)	0.52	49 (B6-1)	0.28	20 (B3-5)	-0.59
57 (B6-9)	0.52	5 (B1-5)	0.23	16 (B3-1)	-0.65
10 (B2-3)	0.51	36 (B4-2)	0.23	19 (B3-4)	-0.71
50 (B6-2)	0.51	15 (B2-8)	0.21	3 (B1-3)	-0.78
58 (B6-10)	0.51	42 (B4-8)	0.15	2 (B1-2)	-0.87
45 (B5-2)	0.51	18 (B3-3)	0.14	65 (B7-5)	-0.93
52 (B6-4)	0.51	34 (B3-19)	0.12	61 (B7-1)	-1.05
13 (B2-6)	0.50	39 (B4-5)	0.09	62 (B7-2)	-1.08
30 (B3-15)	0.49	59 (B6-11)	0.09	63 (B7-3)	-1.15

15

41 (B4-7) 0.47	9 (B2-2) 0.02	64 (B7-4) -1.19
27 (B3-12) 0.46	35 (B4-1) 0.02	4 (B1-4) -1.62
37 (B4-3) 0.45	60 (B6-12) 0.01	7 (B1-7) -1.62
29 (B3-14) 0.43	6 (B1-6) -0.01	1 (B1-1) -2.22
43 (B4-9) 0.42	22 (B3-7) -0.02	

The person and item reliability index is an estimate of how well an item or person can discriminate on measured variable or the extent to which a similar item or the person ordering will be produced if the items are administered to person with comparable characteristics (Wright & Stone, 1999; Bond & Fox, 2001).

Table 12

Summary of Person & Item Reliability

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PERSONS    306 INPUT    306 MEASURED              INFIT        OUTFIT
           SCORE    COUNT    MEASURE    ERROR    IMNSQ  ZSTD  OMNSQ  ZSTD
MEAN       198.9    65.0       .02      .15      1.04   -.5   1.08   -.4
S.D.        44.1     .0        .82      .05       .65   3.4    .82    3.3
REAL RMSE    .16  ADJ.SD       .80   SEPARATION  5.06  PERSON RELIABILITY  .96
---------------------------------------------------------------------
ITEMS       65 INPUT     65 MEASURED              INFIT        OUTFIT
MEAN       933.2    305.0      .00      .07      1.01   -.4   1.08   -.2
S.D.       166.3     .0        .65      .01       .36   4.1    .54    4.6
REAL RMSE    .07  ADJ.SD       .65   SEPARATION  9.76  ITEM   RELIABILITY  .99
---------------------------------------------------------------------
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Table 12 shows that a total of 306 persons with 65 items measured. The person separation index of 5.06 and person reliability was 0.96 indicates that the respondents can be classified into 5 levels, while item separation index of 9.76 indicates that the items can be classified almost 10 levels and the item reliability was 0.99. The person and item reliability index is considered high. This better fit supported by standard residuals variance that the variance explained by measures indicated a strong measurement (62.0%) with the variance explained by the first construct in the residual less than 10% (about 4.9%).

Table 13 shows the constructs and dimensions of the integration works of Islamic values in the curriculum done at the different Kulliyyahs of IIUM.

Table 13

Item Polarity & Item Fit, Separation Index & Reliability

Variable	No item	Infit MNSQ	PTMEA CORR	Separation Index Item	Separation Index Person	Reliability Item	Reliability Person
	B1.1	1.36	0.52				
	B1.2	1.04	0.59				
Believe of	B1.3	0.77	0.60				
Islamizatio	B1.4	0.99	0.54	10.98	0.99	0.99	0.50
n of	B1.5	1.21	0.48				
Knowledg	B1.6	0.94	0.55				
e	B1.7	0.85	0.53				

Table 12 (Cont...)

Variable	No item	Infit MNSQ	PTMEA CORR	Separation Index Item	Separation Index Person	Reliability Item	Reliability Person
	B2.1	0.78	0.56	5.82	1.22	0.97	0.60

	B2.2	0.97	0.51				
	B2.3	1.44	0.28				
	B2.4	1.05	0.59				
Content	B2.5	0.93	0.52				
	B2.6	1.00	0.59				
	B2.7	0.78	0.65				
	B2.8	0.98	0.60				
	B3.1	1.00	0.67				
	B3.2	0.98	0.68				
	B3.3	1.09	0.74				
	B3.4	0.90	0.69				
	B3.5	0.84	0.71				
	B3.6	0.82	0.77				
Teaching	B3.7	0.88	0.75				
&	B3.8	0.99	0.73				
Learning	B3.9	0.79	0.75	9.69	4.07	0.99	0.94
Process	B3.10	0.91	0.75				
	B3.11	0.84	0.79				
	B3.12	1.05	0.77				
	B3.13	1.49	0.68				
	B3.14	1.40	0.72				
	B3.15	0.85	0.80				
	B3.16	1.12	0.74				
	B3.17	1.11	0.77				
	B3.18	0.94	0.77				
	B3.19	0.76	0.78				
	B4.1	0.88	0.78				
	B4.2	0.96	0.78				
	B4.3	1.21	0.76	6.04	2.62	0.97	0.87
	B4.4	0.96	0.79				
	B4.5	1.05	0.77				

Variable	No item	Infit MNSQ	PTMEA CORR	Item	Person	Item	Person
Evaluation	B4.6	0.93	0.77				
	B4.7	1.08	0.78				
	B4.8	0.79	0.81				
	B4.9	1.07	0.76				
	B5.1	1.18	0.79				
	B5.2	0.66	0.85				
Resource	B5.3	0.69	0.84	6.15	1.73	0.97	0.75
	B5.4	0.95	0.81				
	B5.5	1.41	0.73				
	B6.1	0.94	0.82				
	B6.2	1.44	0.77				
	B6.3	0.76	0.84				
Product	B6.4	0.83	0.83	4.84	3.24	0.96	0.91
	B6.5	0.96	0.82				
	B6.6	0.78	0.84				
	B6.7	0.88	0.83				
	B6.8	0.76	0.84				

Table 12 (Cont...)

Variable	No item	Infit MNSQ	PTMEA CORR	Separation Index Item	Person	Reliability Item	Person
	B6.9	0.76	0.84				
Product	B6.10	0.97	0.82	4.84	3.24	0.96	0.91
	B6.11	1.38	0.77				
	B6.12	1.41	0.76				
Emphasize on the Positive improveme	B7.1	0.89	0.95				
	B7.2	0.50	0.97	2.78	2.69	0.89	0.88
	B7.3	0.72	0.96				
	B7.4	0.62	0.96				

| nt | ol B7.5 | 1.94 | 0.88 |
| students | | | |

Bond and Fox (2001) state, that the Point Measurement Correlation (PTMEA CORR) is provides information on the extent to which all items in the same direction on the construct being examined. Wright and Stone (1999) propose, the Item Fit Mean-Square (Infit MNSQ) assess the pattern consistence. It is a process of analyzing data that the extent to which each item's response to each person fits the Rasch model, with acceptable range for infit MNSQ and outfit MNSQ fit statistics for rating scale is ($\geq$ MNSQ of 0.50 to $\leq$ MNSQ of 1.50)(Bond &Fox,200; Linacre,2006). Moreover, separation indexes (item & Person) is provide information on the extent to which the items or person in the scale are separated to define a continuum of increasing intensity.

Table 13 shows the results of seven variables for integration for Islamic values in the curriculum is presented in following sections: First, examining of seven items for *"Believe of Islamization of Knowledge"* found acceptable fit to the model range of Infit MNSQ (0.77 to 1.36). As the rule of thumb of acceptable range for the infit MNSQ fit statistics is 0.50 to 1.50 respectively, for acceptable range the PTMEA CORR is 0.30 and above (Bond & Fox, 2001). This better fit item estimated was supported by positive PTMEA CORR values ranging from 0.48 to 0.60. The item reliability index (0.99) was higher compared to person reliability index (0.50). The low reliability values might be to small number of items for this variable. Item separation index of 10.98 indicated that the items can be classified almost into 11 levels of difficulty. Moreover, the procedure to identify item agreement in this study by evaluating the Item Map shown at (Appendix: Item Map) and Item Measure (Appendix: Item Measure). The most difficult item to endorse agreement to is Item B1-5 (An overemphasized mission). The measure of this item on the logit scale is 1.30. The easiest item is Item B1-1 (An important mission of IIUM), measure = -1.33 (See Appendix: Item Measure & Item Map for the First Variable).

Second, the eight items for *"Content"* had Infit MNSQ values ranging from 0.78 to 1.44 and PTMEA CORR ranging from 0.28 to 0.65. All items for this variable were within the acceptable range for Infit MNSQ and PTMEA CORR. The item reliability index was (0.97) considered high values. There are three items (Items B2-4, B2-3& B2-6) were considered difficult items to endorse agreement. Item B2-4 (The content of my subject: Is all about IOK), item measure = 0.34, Item B2-3 (The content of my subject: Is difficult to be integrated with IOK), measure = 0.33, and Item B2-6 (The content of my subject: Indicates IOK in the learning outcome only), measure = 0.32 (See Appendix: Item Map & Item Measure

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for the Second Variable). The easiest item is Item B2-1 (The content of my subject: Integrates IOK), measure = -0.90, respectively.

Third, there are nineteen (19) items for *"Teaching & Learning Process"* All items is this variable have positive PTMEA CORR value ranging from 0.67 to 0.80, with fit item estimates of Infit MNSQ values of 0.76 to 1.49. The item reliability index and person reliability index was high (0.99 & 0.94). There are two items (Item B3-17 & B3-13) were considered most difficult items to endorse agreement in this variable. Item B3-17 (In my teaching and learning process, I integrate IOK through: Games), measure = 1.26, and Item B3-13 (In my teaching and learning process, I integrate IOK through: Patching [cut and paste]), measure = 1.25 (See Appendix: Item Map & Item Measure for the Third Variable). The easiest item to endorse agreement is Item B3-4 (Giving examples and evidences), measure = -1.39.

Fourth, nine items for *"Evaluation"* shows the contribution of item estimates to the construct is indicated by fit of Infit MNSQ values ranging from 0.79 to 1.21 and PTMEA CORR values ranging from 0.76 to 0.81. The item reliability index (0.97) was higher compared to person reliability index about (0.87). The most difficult item to endorse agreement to is Item B4-4 (In the evaluation of my coursework, IOK is emphasized in: Colloquium). The measure of this item on the logit scale is 0.81. The easiest item is Item B4-6 (In the evaluation of my coursework, IOK is emphasized in: In class presentation), measure = -0.91 (See Appendix: Item Map & Item Measure for the Fourth Variable).

Fifth, examination of five items for *"Resource"* had fit of Infit MNSQ values of (0.66 to 1.41) with PTMEA CORR values of (0.73 to 0.85). Item estimates of Infit MNSQ and PTMEA CORR values were within the acceptable range. The item reliability index was considered higher compared to person reliability index (0.97 & 0.75). The most difficult item is Item B5-4 (In For the purpose of integrating IOK in my coursework I will refer to: An external expert). The measure of this item on the logit scale is 0.58 (See Appendix: Item Map & Item Measure for the Fifth Variable). The easiest item is Item B5-5(For the purpose of integrating IOK in my coursework I will refer to: My colleague), measure = -0.97, respectively.

Sixth, there are twelve items for *"Product"* found that all items in this variable had fit of Infit MNSQ and PTMEA CORR. Infit MNSQ was ranging from 0.76 to 1.44 and positive values of PTMEA CORR ranging from 0.76 to 0.84. This better fit was supported by the high reliability index for item and person (0.96 & 0.91). There are two items (Item B6-5 & B6-6) were considered most difficult items to endorse agreement in this variable. Item B6-5 (My products of IOK are: Book), measure = 0.62, and Item B6-6 (My products of IOK are: Proceeding), measure = 0.51 (See Appendix: Item Map & Item Measure

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for the Sixth Variable). The easiest item is Item B6-12(My products of IOK are: Student's assignment), measure = -0.84, respectively.

Finally, five items for *"Emphasize on the Positive improvement of student's"* had Infit MNSQ values ranging from 0.50 to 1.94. The better fit of Infit MNSQ was in line with PTMEA CORR ranging from 0.88 to 0.97, and supported by high of item reliability index (0.89). The most difficult item is Item B7-5 (For the purpose of evaluating IOK, in my teaching and learning, I will also emphasize on the positive improvement of my student's: Appearance). The measure of this item on the logit scale is 0.94. The easiest item to endorse agreement is Item B7-4 (For the purpose of evaluating IOK, in my teaching and learning, I will also emphasize on the positive improvement of my student's: Attitude), measure = -0.69, respectively (See Appendix: Item Map & Item Measure for the Seventh Variable).

Conclusion

- **IOK indicators should be developed to reflect the needs of postgraduate and undergraduate programmes.**

This study presents a model of indicators for the evaluation of Islamic integration in the academic curriculum at IIUM. The evaluation of Islamic integration can became the model for other universities in Malaysia to evaluate their curriculum based on Islamization of Knowledge.

The results from the Rasch analyses that concern with validity and usefulness of the scale show that: i. all the items in this study on the scale have positive PTMEA CORR values ranging from 0.48 to 0.85, it means that all items on the scale are working in the same direction on the construct being examined. ii. There were 65 Items had fit item estimates for seven variables. This Infit MNSQ was inside the range of $\geq$ MNSQ of 0.50 to $\leq$ MNSQ of 1.50. iii. There are five items (Item B6-5, B3-17, B3-13, B6-6 & B4-4) were considered the most difficult item to endorse agreement. Item B6-5 (*My products of IOK are: Book*), Item B3-17 (*In my teaching and learning process, I integrate IOK through: Games*), Item B3-13 (*In my teaching and learning process, I integrate IOK through: Patching [cut and paste]*), Item B6-6 (*My products of IOK are: Proceeding*), and Item B4-4 (*In the evaluation of my coursework, IOK is emphasized in: Colloquium*). While, the easiest item is Item B1.1 (*I believe that Islamization of Knowledge is: An important mission of IIUM*).

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APPENDIX

Appendix: Item Map for the First Variable

```
P E R S O N S   M A P   O F   I T E M S
                    <more> | <rare>
  4             . #        +
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  3             -          +
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                        T  |
              # # #        |
                           |
  2         # # # # #      +
                        S  |
          . # # # # # #    | T
                           |
          . # # # # #      |
        . # # # # # # # #  |       B1.5
                           |
  1  # # # # # # # # # # # # M+     B1.6
        . # # # # # #    | S
                           |
          # # # # # # #    |
        . # # # # #        |
        . # # # #       S  |       B1.3
          . # #           |       B1.2
  0        . #          + M
                           |
          -                |
          -            T   |
          -                |
                           |       B1.4     B1.7
          -            | S
 -1                        +
          -                |
                           |       B1.1
                        | T
                           |
 -2            -           +
                           |
                -          |
                           |
 -3                        +
                           |
                           |
                           |
 -4            -           +
                    <less> | <frequ>
```
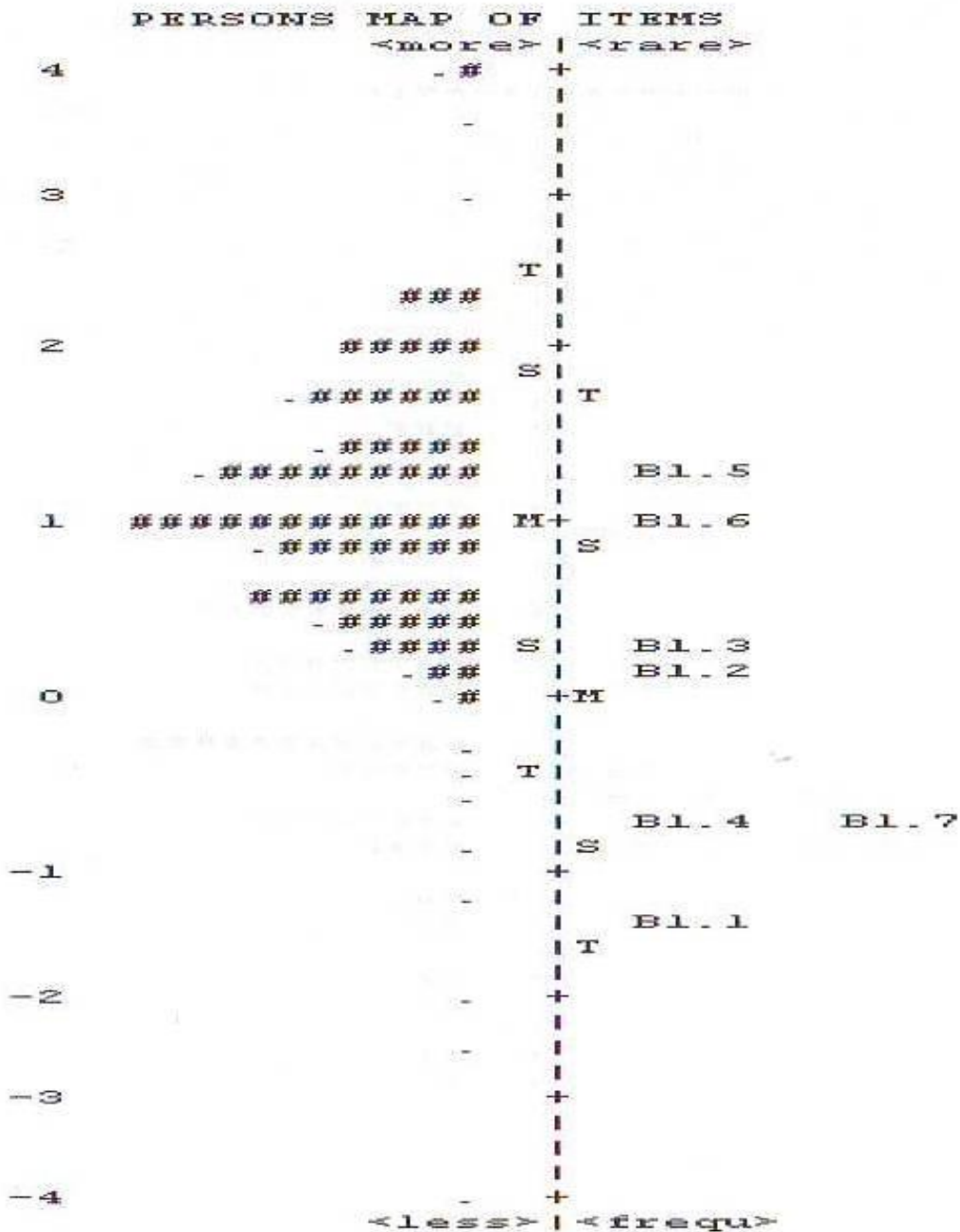
Appendix: Item Measure for the First Variable

```
-----------------------------------------------------------------------------
ENTRY   RAW                    MODEL|   INFIT  |  OUTFIT  |PTMEA|EXACT MATCH|
NUMBER  SCORE  COUNT  MEASURE   S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.| OBS%  EXP%| ITEM
--------------------------------------+----------+----------+-----+-----------+------
     5    846    297    1.30   .06|1.21  2.7|1.39   4.6| .48| 38.4  38.3| B1.5
     6    915    297    1.04   .06| .94  -.8|1.05    .7| .54| 43.8  39.0| B1.6
     3   1119    297     .22   .07| .77 -3.1| .81  -2.3| .60| 45.8  43.3| B1.3
     2   1139    297     .12   .07|1.04   .6|1.02    .2| .59| 42.8  44.2| B1.2
     4   1281    297    -.68   .08| .99   .0|1.01    .1| .54| 50.2  51.1| B1.4
     7   1281    297    -.68   .08| .85 -1.6| .83  -1.8| .53| 56.6  51.1| B1.7
     1   1359    297   -1.33   .10|1.36  3.2|1.09    .8| .52| 63.3  63.0| B1.1
--------------------------------------+----------+----------+-----+-----------+------
MEAN  1134.3  297.0     .00   .08|1.02   .1|1.03    .3|     | 48.7  47.2|
S.D.   179.3    .0     .89   .01| .19  2.1| .18   2.1|     |  8.0   8.0|
-----------------------------------------------------------------------------
```

Item Index for the First Variable based on Rasch Measurement Model

No	Item	Measure	Infit MNSQ	PTMEA CORR.
	I believe that Islamization of Knowledge (IOK) is:			
B1-5	An overemphasized mission	1.30	1.21	0.48
B1-6	An enterprise of certain quarters in IIUM	1.04	0.94	0.54
B1-3	A successful story for IIUM	0.22	0.76	0.60
B1-2	A unique experience to IIUM only	0.12	1.04	0.59
B1-4	A challenge to IIUM	-0.68	0.99	0.54
B1-7	A continuous process for IIUM establishment	-0.68	0.85	0.53
B1-1	An important mission of IIUM	-1.33	1.36	0.52

Appendix: Item Map for the Second Variable

```
       PERSONS MAP OF ITEMS
                    <more> | <rare>
   3                    .  +
                        .  |
                        .  |
                           |
   2                    .  +
                           |
                        .  |
                           |
                     . #   |
                     ##    |
                       T |
   1                 . ## +
                     ##    |
                         | T
                     . ## |
                     . ### S |
                         | S
                     . #### |      B2.3      B2.4      B2.6
                     . ######   |
                           |    B2.5      B2.7
   0              . #####  +M  B2.8
         . ############  |
                      M |
                . #########  |    B2.2
                . ########  | S
                           |
          . ###########  |
                . ######  |
                . ########  | T
                           |      B2.1
  -1              . ####  S+
                       . #  |
                           |
                     ###   |
                           |
                       . #  |
                     ##    |
                       T |
                           |
                           |
  -2                    .  +
                           |
                        .  |
                           |
                        .  |
                           |
  -3                    .  +
                    <less> | <freq>
```

Appendix: Item Measure for the Second Variable

```
-------------------------------------------------------------------
ENTRY   RAW                  MODEL|   INFIT  |  OUTFIT  |PTMEA|EXACT MATCH|
NUMBER  SCORE  COUNT MEASURE  S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.| OBS%  EXP%| ITEM
-------------------------------------------------------------------
   11    790    303    .34    .06|1.05   .7|1.02   .3| .59| 46.5  38.8| B2.4
   10    792    303    .33    .06|1.44  5.5|1.57  6.6| .28| 36.0  38.8| B2.3
   13    795    303    .32    .06|1.00   .0| .99  -.1| .59| 40.3  38.8| B2.6
   14    843    303    .13    .06| .78 -3.2| .77 -3.3| .65| 49.8  41.0| B2.7
   12    855    303    .08    .06| .93 -1.0| .91 -1.3| .52| 48.8  41.1| B2.5
   15    882    303   -.03    .06| .98  -.2| .96  -.5| .60| 46.2  42.0| B2.8
    9    937    303   -.26    .06| .97  -.3| .96  -.5| .51| 49.2  43.0| B2.2
    8   1083    303   -.90    .07| .78 -2.9| .77 -3.1| .56| 49.5  44.1| B2.1
-------------------------------------------------------------------
MEAN   872.1  303.0   .00    .06| .99  -.2| .99  -.2|     | 45.8  41.0|
S.D.    92.9    .0    .39    .00| .19  2.5| .23  2.9|     |  4.7   1.9|
```

Item Index for the Second Variable based on Rasch Measurement Model

No	Item	Measure	Infit MNSQ	PTMEA CORR.
	The content of my subject:			
B2-4	Is all about IOK	0.34	1.05	0.59
B2-3	Is difficult to be integrated with IOK	0.33	1.44	0.28
B2-6	Indicates IOK in the learning outcome only	0.32	1.00	0.59
B2-7	Indicates IOK in the assessment strategy	0.13	0.78	0.65
B2-5	Is integrated superficially with IOK	0.80	0.93	0.52
B2-8	Uses IOK in exercises and assignments	-0.03	0.98	0.60
B2-2	Emphasizes IOK on certain weeks of the course outline only	-0.26	0.97	0.51
B2-1	Integrates IOK	-0.90	0.78	0.56

Appendix: Item Map for the Third Variable

```
       PERSONS  MAP  OF  ITEMS
              <more> | <rare>
  7          - ###    +
                      |
  6           - #     +
                      |
                      +
              -       |
  4                   +
              -       |
              -       |
                    T |
  3           -       +
              -       |
              -       |
              - #     |
              - #     |
  2           -       +
           - ####     |
             ####     | T
            - ##    S |
           - ###      |   B3.13    B3.17
  1          ####     +
           - ###      | S B3.12    B3.15
             - #      |   B3.14    B3.16
           - ####     |   B3.11    B3.18
           - ####     |   B3.19    B3.3
  0          ###     +M
  - #########     M |   B3.10    B3.6    B3.7
           #####     |   B3.8
          ######     |   B3.9
             ##     | S
 -1        - ####    +
            - ###     |   B3.1    B3.2    B3.5
        - #######     |   B3.4
            ###     | T
           ####    S |
 -2          -       +
            ###       |
            - #       |
            - ##      |
             -        |
 -3          -        +
             -        |
            - #    T |
                      |
 -4          -        +
                      |
 -5          -        +
```

Appendix: Item Measure for the Third Variable

```
---------------------------------------------------------------------------+
ENTRY   RAW                      MODEL|   INFIT  |  OUTFIT |PTMEA|EXACT MATCH|        |
NUMBER  SCORE  COUNT  MEASURE    S.E.  |MNSQ  ZSTD|MNSQ  ZSTD|CORR.|  OBS%   EXP%| ITEM |
---------------------------------------+----------+----------+-----+----------+------|
    32    677    294    1.26     .08|1.11  1.3|1.07   .7|  .77| 46.9  51.4| B3.17|
    28    679    294    1.25     .08|1.49  5.3|1.82  6.8|  .68| 41.5  51.4| B3.13|
    30    754    294     .78     .08| .85 -1.9| .83 -1.9|  .80| 55.4  49.5| B3.15|
    27    763    294     .73     .08|1.05   .7|1.05   .5|  .77| 54.1  49.1| B3.12|
    29    771    294     .68     .08|1.40  4.5|1.38  3.9|  .72| 50.3  49.2| B3.14|
    31    790    294     .56     .08|1.12  1.5|1.19  2.1|  .74| 56.5  50.0| B3.16|
    26    800    294     .50     .08| .84 -2.1| .83 -2.0|  .79| 58.5  50.2| B3.11|
    33    804    294     .48     .08| .94  -.7| .92  -.9|  .77| 58.8  50.0| B3.18|
    18    857    294     .15     .08|1.09  1.2|1.09  1.0|  .74| 51.4  50.3| B3.3 |
    34    863    294     .12     .08| .76 -3.2| .77 -2.9|  .78| 61.2  50.2| B3.19|
    22    905    294    -.14     .08| .88 -1.6| .95  -.5|  .75| 54.1  50.5| B3.7 |
    21    907    294    -.16     .08| .82 -2.4| .81 -2.3|  .77| 59.5  50.5| B3.6 |
    25    929    294    -.30     .08| .91 -1.1| .88 -1.4|  .75| 58.2  50.9| B3.10|
    23    938    294    -.35     .08| .99   .0| .99  -.1|  .73| 54.8  51.5| B3.8 |
    24    971    294    -.57     .08| .79 -2.8| .76 -2.8|  .75| 58.5  51.7| B3.9 |
    17   1058    294   -1.16     .08| .98  -.2| .95  -.5|  .68| 52.0  53.7| B3.2 |
    20   1058    294   -1.16     .08| .84 -2.0| .82 -1.8|  .71| 54.8  53.7| B3.5 |
    16   1074    294   -1.28     .09|1.00   .1| .96  -.3|  .67| 54.8  54.1| B3.1 |
    19   1089    294   -1.39     .09| .90 -1.2| .86 -1.4|  .69| 56.8  54.8| B3.4 |
---------------------------------------+----------+----------+-----+----------+------|
MEAN   878.3  294.0     .00     .08| .99  -.3|1.00  -.2|     | 54.6  51.2|        |
S.D.   126.5    .0      .81     .00| .19  2.2| .25  2.3|     |  4.6   1.7|        |
                                                                                  |
```

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Item Index for the Third Variable based on Rasch Measurement Model

No	Item	Measure	Infit MNSQ	PTMEA CORR.
	In my teaching and learning process, I integrate IOK through:			
B3-17	Games	1.26	1.11	0.77
B3-13	Patching (cut and paste)	1.25	1.49	0.68
B3-15	Simulation	0.78	0.85	0.80
B3-12	Debate	0.73	1.05	0.77
B3-14	Internship and practical	0.68	1.40	0.72
B3-16	Role play	0.56	1.12	0.74
B3-11	Forum	0.50	0.84	0.79
B3-18	Demonstration	0.48	0.94	0.77
B3-3	Workshops	0.15	1.09	0.74
B3-19	Cooperative Learning	0.12	0.76	0.78
B3-7	Group dynamics	-0.14	0.88	0.75
B3-6	Problem based learning	-0.16	0.82	0.77
B3-10	Dialogue	-0.30	0.91	0.75
B3-8	Comparative approach	-0.35	0.99	0.73
B3-9	Question and answer	-0.57	0.79	0.75
B3-2	Lecture	-1.16	0.98	0.68
B3-5	Explanation	-1.16	0.84	0.71
B3-1	Discussion	-1.28	1.00	0.67
B3-4	Giving examples and evidences	-1.39	0.90	0.69

Appendix: Item Map for the Fourth Variable

```
        PERSONS  MAP  OF  ITEMS
                  <more>|<rare>
  5            . ###   +
                  -    |
  4              -     +
                       |
  3              -     +
                       |
               .     T |
               . #     |
               . #     |
  2              #     +
                 #     |
          #######      |
              ##       |
            . ##     S |
  1                    +T
              ###      |    B4.4
              ##       |
            . ##       |S
            ####       |    B4.3    B4.7    B4.9
                       |
  0        . ######    +M  B4.2
              ###      |    B4.8
       ##########      M|    B4.5
            . ###      |S  B4.1
             . ##      |
           . ####      |    B4.6
 -1      . #####       +T
           ####        |
            . ##       |
          . ###        |
           ####        |
            . ##     S |
 -2         . ##       +
            . ##       |
            . ##       |
              #        |
                       |
 -3           . #      +
                       |
              ##       |
                   T   |
                       |
 -4           . #      +
                       |
 -5         ####       +
                  <less>|<frequ>
```

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Appendix: Item Measure for the Fourth Variable

```
-------------------------------------------------------------------
ENTRY   RAU                   MODEL|  INFIT  |  OUTFIT  |PTMEA|EXACT MATCH|        |
NUMBER  SCORE  COUNT  MEASURE  S.E. |MNSQ ZSTD|MNSQ ZSTD|CORR.| OBS%  EXP%| ITEM |
-------------------------------------------------------------------
  38    679    284     .81     .08| .96  -.5| .91  -.9| .79| 52.1  49.6| B4.4 |
  41    751    284     .38     .08|1.08  1.0|1.08   .9| .78| 54.6  49.2| B4.7 |
  37    755    284     .36     .08|1.21  2.4|1.24  2.4| .76| 56.7  49.2| B4.3 |
  43    764    284     .30     .08|1.07   .9|1.12  1.3| .76| 58.1  49.4| B4.9 |
  36    822    284    -.04     .08| .96  -.5| .96  -.4| .78| 59.2  48.6| B4.2 |
  42    846    284    -.19     .08| .79 -2.7| .77 -2.9| .81| 58.1  49.1| B4.8 |
  39    862    284    -.29     .08|1.05   .6|1.06   .7| .77| 53.9  49.3| B4.5 |
  35    883    284    -.42     .08| .88 -1.5| .91 -1.1| .78| 56.3  49.4| B4.1 |
  40    961    284    -.91     .08| .93  -.8| .93  -.8| .77| 50.7  50.4| B4.6 |
-------------------------------------------------------------------
MEAN   813.7  284.0    .00     .08| .99  -.1|1.00  -.1|     | 55.5  49.3|       |
S.D.    80.2    .0     .49     .00| .12  1.4| .13  1.5|     |  2.7   .5|        |
-------------------------------------------------------------------
```

Item Index for the Fourth Variable based on Rasch Measurement Model

In the evaluation of my coursework, IOK is emphasized in:				
No	Item	Measure	Infit MNSQ	PTMEA CORR.
B4-4	Colloquium	0.81	0.96	0.79
B4-7	Practicum and internship	0.38	1.08	0.78
B4-3	Thesis proposal	0.36	1.21	0.76
B4-9	Fieldwork	0.30	1.07	0.76
B4-2	Take home assignment	-0.04	0.96	0.78
B4-8	Project	-0.19	0.79	0.81
B4-5	Examination	-0.29	1.05	0.77
B4-1	Class assignment	-0.42	0.88	0.78
B4-6	In class presentation	-0.91	0.93	0.77

Appendix: Item Map for the Fifth Variable
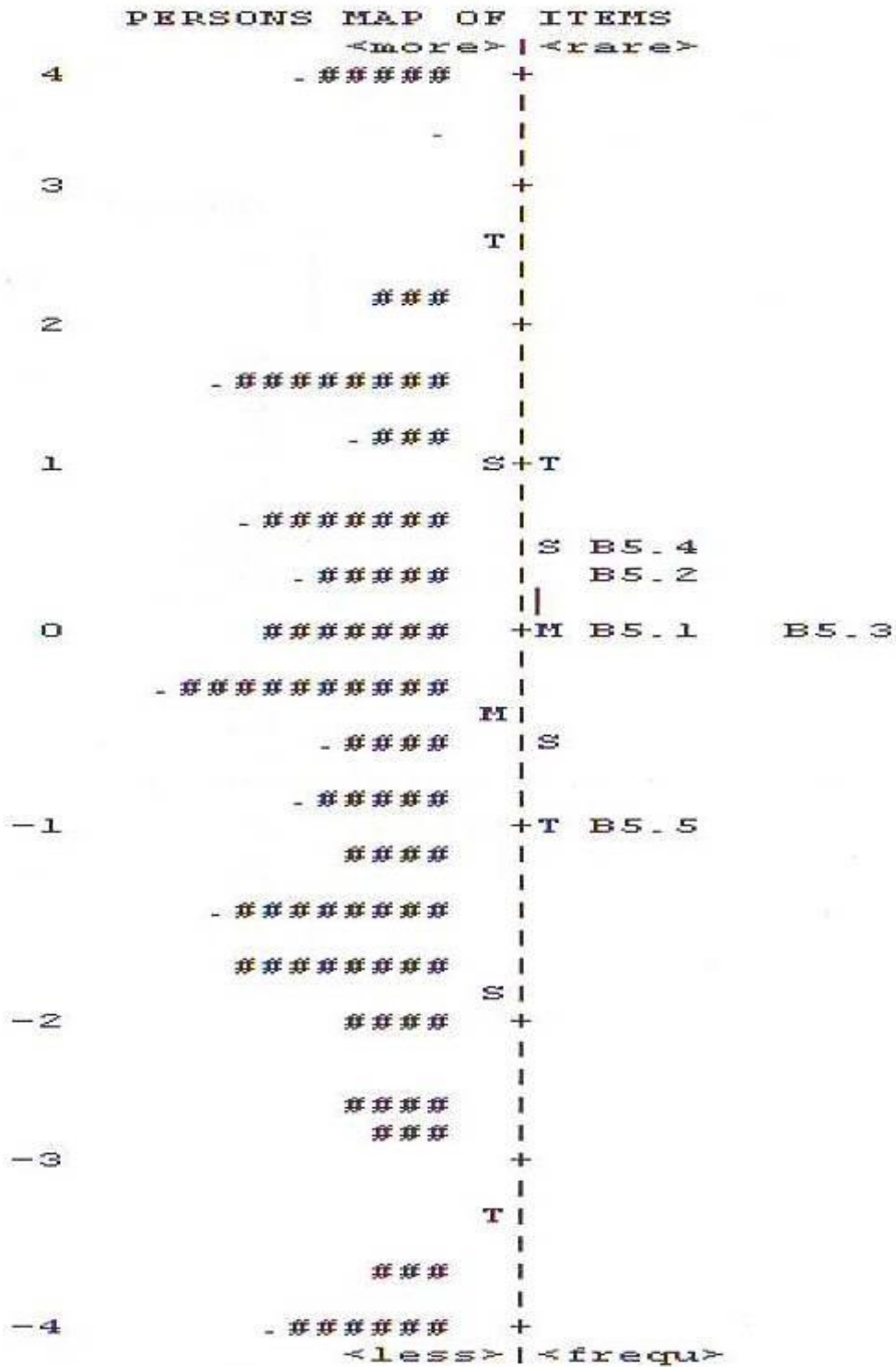
```
        PERSONS  MAP  OF  ITEMS
                    <more> | <rare>
  4              _#####    +
                           |
                     _     |
                           |
  3                        +
                           |
                     T |
                           |
               ###         |
  2                        +
                           |
         _########         |
                           |
           _###        S +T
  1                    S+T
                           |
         _#######          |
                           |S  B5.4
           _#####          |    B5.2
                           ||
  0        #######        +M  B5.1        B5.3
        _##########        |
                     M |
           _####        |S
                           |
           _#####          |
 -1                       +T  B5.5
            ####           |
        _########          |
        ########           |
                     S |
 -2         ####        +
                           |
                           |
            ####           |
            ###            |
 -3                        +
                           |
                     T |
                           |
            ###            |
                           |
 -4      _######        +
                    <less> | <frequ>
```

34

Appendix: Item Measure for the Fifth Variable

```
-------------------------------------------------------------------+
ENTRY   RAW                     MODEL|  INFIT  |  OUTFIT  |PTMEA|EXACT MATCH|        |
NUMBER  SCORE  COUNT  MEASURE   S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.| OBS%   EXP%| ITEM |
-----------------------------------+----------+----------+-----+-----------+------|
    47   668    270     .58    .08|1.00   .1| .95  -.5| .81| 61.9  49.7| B5.4 |
    45   701    270     .36    .08| .70 -4.1| .66 -4.3| .85| 63.3  49.0| B5.2 |
    44   755    270     .02    .08|1.18  2.1|1.13  1.5| .79| 53.7  48.8| B5.1 |
    46   756    270     .01    .08| .72 -3.7| .69 -4.0| .84| 59.6  48.8| B5.3 |
    48   906    270    -.97    .08|1.37  3.9|1.41  4.4| .73| 41.9  50.6| B5.5 |
-----------------------------------+----------+----------+-----+-----------+------|
MEAN  757.2  270.0     .00    .08| .99  -.3| .97  -.6|     | 56.1  49.4|        |
S.D.   81.6     .0     .53    .00| .26  3.1| .28  3.3|     |  7.8   .7|        |
-------------------------------------------------------------------+
```

Item Index for the Fifth Variable based on Rasch Measurement Model

	For the purpose of integrating IOK in my coursework I will refer to:			
No	Item	Measure	Infit MNSQ	PTMEA CORR.
B5-4	An external expert	0.58	1.00	0.81
B5-2	A committee	0.36	0.70	0.85
B5-1	A mentor	0.02	1.18	0.79
B5-3	An internal expert	0.01	0.72	0.84
B5-5	My colleague	-0.97	1.37	0.73

Appendix: Item Map for the Sixth Variable

```
        PERSONS MAP OF ITEMS
                <more>|<rare>
  6       .#####   +
                   |
            #      |
  5                +
                  ||
  4                +
           .       |
                   |
           .#      |
  3                +
           .    T |
           .       |
           .       |
           .       |
  2        .#    +
           .       |
         .####    |
          ###     |
           #      |
  1        .##  S+
           ##    |T
           .#    |    B6.5     B6.6
           .##   |S
          .###   |    B6.10    B6.2    B6.4    B6.7    B6.8    B6.9
  0        .#   +M B6.3
          .###   |
       .#######  |S B6.1
          .### M|    B6.11
          .####  |T B6.12
 -1       ####   +
       .######   |
           ##    |
          #####  |
          #####  |
 -2       .###   +
          .#  S|
          ###   |
          .#    |
          .##   |
 -3       ##    +
          ##    |
                 |
            T |
 -4                +
           .       |
                   |
 -5    ##########   +
```

Appendix: Item Measure for the Sixth Variable

```
----------------------------------------------------------------------------+
ENTRY   RAW                     MODEL|   INFIT  |   OUTFIT  |PTMEA|EXACT MATCH|          |
NUMBER  SCORE  COUNT  MEASURE   S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.| OBS%  EXP%| ITEM |
----------------------------------------------------------------------------|
   53    611    260    .62      .08| .96  -.4| .89  -1.0| .82| 62.7  51.4| B6.5 |
   54    627    260    .51      .08| .78  -2.7| .81  -1.8| .84| 64.6  51.1| B6.6 |
   55    665    260    .27      .08| .88  -1.4| .94   -.6| .83| 61.5  49.6| B6.7 |
   56    688    260    .12      .08| .76  -3.0| .83  -1.8| .84| 60.8  49.3| B6.8 |
   57    688    260    .12      .08| .76  -3.0| .73  -3.0| .84| 59.6  49.3| B6.9 |
   50    689    260    .11      .08|1.44   4.6|1.56   4.9| .77| 54.2  49.6| B6.2 |
   58    690    260    .11      .08| .97   -.3| .98   -.1| .82| 58.1  49.6| B6.10|
   52    691    260    .10      .08| .83  -2.1| .82  -1.9| .83| 58.1  49.6| B6.4 |
   51    722    260   -.10      .08| .76  -3.0| .76  -2.7| .84| 55.8  48.3| B6.3 |
   49    759    260   -.33      .08| .94   -.6| .95   -.5| .82| 50.0  48.9| B6.1 |
   59    815    260   -.69      .08|1.38   4.0|1.32   3.1| .77| 50.8  49.1| B6.11|
   60    838    260   -.84      .08|1.41   4.2|1.45   4.2| .76| 45.0  49.8| B6.12|
----------------------------------------------------------------------------|
MEAN   706.9  260.0    .00      .08| .99   -.3|1.00   -.1|     | 56.8  49.6|          |
S.D.    65.0     .0    .42      .00| .25   2.8| .27   2.6|     |  5.6   .8|          |
----------------------------------------------------------------------------+
```

Item Index for the Sixth Variable based on Rasch Measurement Model

My products of IOK are:

No	Item	Measure	Infit MNSQ	PTMEA CORR.
B6-5	Book	0.62	0.96	0.82
B6-6	Proceeding	0.51	0.78	0.84
B6-7	Workshop	0.27	0.88	0.83
B6-8	Seminar	0.12	0.76	0.84
B6-9	Conference	0.12	0.76	0.84
B6-2	Consultancy	0.11	1.44	0.77
B6-10	Thesis	0.11	0.97	0.82
B6-4	A chapter in a book	0.10	0.82	0.83
B6-3	Article	-0.10	0.76	0.84
B6-1	Research	-0.33	0.94	0.82
B6-11	Student's project	-0.69	1.38	0.77
B6-12	Student's assignment	-0.84	1.41	0.76

Appendix: Item Map for the Seventh Variable

```
       PERSONS  MAP  OF  ITEMS
                   <more> | <rare>
  10  ##############    +
                        |
   9             ##     +
                        |
   8          _ #   S+
                        |
                        |
   7          _ ##      +
                        |
   6                    +
                        |
   5  _ ############    +
                        |
   4                    +
              ## M|
                        |
   3                    +
              _ #        |
   2          _          +
                        |
   1          _          +T  B7.5
                       |S
                       |    B7.1
   0                   +M  B7.2
         _ ###### S|    B7.3
                       |S  B7.4
  -1                   +T
                        |
  -2                   +
                        |
  -3          _         +
                        |
  -4                   +
              T |
                        |
  -5                   +
          _ #           |
  -6                   +
          _             |
  -7                   +
                        |
  -8                   +
                        |
  -9          _         +
                        |
 -10          _         +
                <less> | <frequ>
```

Appendix: Item Measure for the Seventh Variable

```
---------------------------------------------------------------------------------|
ENTRY   RAW                      MODEL|   INFIT  |  OUTFIT  |PTMEA|EXACT MATCH|      |
NUMBER  SCORE  COUNT  MEASURE    S.E. |MNSQ  ZSTD|MNSQ  ZSTD|CORR.| OBS%  EXP%| ITEM |
-------------------------------------+----------+----------+-----+-----------+------|
   65    790    221    .94       .17|1.94  6.5|1.78  4.6| .88| 73.3  80.1| B7.5 |
   61    815    221    .18       .18| .89  -.9| .62 -2.6| .95| 87.3  81.9| B7.1 |
   62    820    221    .02       .18| .50 -4.8| .35 -5.2| .97| 90.5  82.2| B7.2 |
   63    835    221   -.46       .18| .72 -2.4| .56 -3.2| .96| 90.0  82.1| B7.3 |
   64    842    221   -.68       .18| .62 -3.4| .48 -4.2| .96| 90.0  82.2| B7.4 |
-------------------------------------+----------+----------+-----+-----------+------|
MEAN   820.4  221.0    .00       .18| .93 -1.0| .76 -2.1|     | 86.2  81.7|      |
S.D.    18.1    .0     .57       .00| .52  4.0| .52  3.5|     |  6.6   .8|      |
---------------------------------------------------------------------------------|
```

Item Index based on Rasch Measurement Model

	For the purpose of evaluating IOK, in my teaching and learning, I will also emphasize on the positive improvement of my student's:			
No	Item	Measure	Infit MNSQ	PTMEA CORR.
B7-5	Appearance	0.94	1.94	0.88
B7-1	Behaviour	0.18	0.89	0.95
B7-2	Personality	0.02	0.50	0.97
B7-3	Morality	-0.46	0.72	0.96
B7-4	Attitude	-0.68	0.62	0.96