Evaluation Of The Guide Module For Integrated Holistic Teaching

Ros Eliana Ahmad Zuki*, Muhammad Afzamiman Aripin#, Rohana Hamzah%

*Institut Pendidikan Guru Kampung Temenggong Ibrahim, Johor Bahru, Johor, Malaysia
#Fakulti Pendidikan, Universiti Teknologi Malaysia, 81310 UTM Johor Bahru, Johor Malaysia
%Department of Life Skills.

Abstract
Enhancing quality education is the main agenda and intention of Malaysian’s education system. The Malaysia’s National Education Philosophy (NEP) was established to produce a balance, holistic and harmonious human. However, in reality, social malaise among the young generation is getting worse despite the claim that schools and education have nurtured noble values in the young generation. Therefore, a more integrated and holistic approach is needed to improve the system. So, the purpose of this study is to assess the implementation of the Integrated Holistic Teaching Guide Module among Technical and Vocational Education (TVE) trainee teachers in the Teachers’ Training Institute, Temenggong Ibrahim Campus. The objective of this module development is to expose, create awareness and appreciation among TVE trainee teachers on integrated holistic approach. This approach consists of eight activities which had been structured based on expert opinion whereby trusted will guide TVE trainee teachers to be more balance, holistic, harmonious and responsible in implementing quality teaching process, as enshrined in the NEP. Indirectly, this will help the government to solve the social malaise among young generation. A pilot study was conducted with sixteen Design and Technology Semester 3 students. The collected data has been analyzed using Rasch Measurement Model to obtain the reliability of the participants in this research and the items. Result shows that Cronbach Alpha to measure participants’ reliability is 0.96, which is very high. Meanwhile the reliability for the instrument items is 0.69 which is at medium level. These items meet the range of infit / outfit Mean Square and the range of infit / outfit z-standard. Therefore, the Guide Module for Integrated Holistic Teaching achieved the objective of its development and perceived appropriate to be used.

Keywords: Quality teaching, National Education Philosophy, integrated holistic teaching, Rasch Model, Malaysia

1.0 BACKGROUND OF PROBLEM
The main challenge in developing a holistic and balanced generation can only be obtained with the high quality education and this is a priority setup by the Ministry of Education (MOE) (Rohani, Hazri and Nordin, 2010). Therefore, having high quality education is a hope and trust that has to be translated by the teacher in teaching and learning (T&L) activities with full responsibility to produce holistic and balanced generation. Unfortunately, T&L focused more on enhancing student skills and intellectual property, as a result of examination-oriented education system (Zainal Abidin, 1994; Wan Mohd Zahid, 1993; Zahrah, 1997). In contrast to Robiah (1998), a qualified teacher should emphasize three important aspects in the development of teaching; skills, intellectual and character building.

According to Asmah (1989), good value elements based on 'faith and devotion to God' should be integrated in the teaching of every subject to strengthen the teaching output, which not only focuses on enhancing the intellectual, rather infuse superior personal qualities. Lack of faith and devotion to God’ values as enshrined in the National Education Philosophy (NEP), will reduce the effectiveness of educational process to produce harmony and balanced generation. Furthermore, the integration of this value with intellectual subjects will strengthen the intellectual and social skill development. As noted by Wan Mohd Noor (2005), whatever relates to education especially teaching methods, should refer to the NEP and cannot be separated from religion, or the science of human reality, of both physical and spiritual.

Nowadays, people are witnessing the fall of humanity that is developed based on the philosophy of science and technology advancement which is separated from religion (Rohana, 2010). This is supported by Aziz et al. (2010), that technical teachers view that aims of teaching theoretical and calculations subjects are only suitable to improve their skills and knowledge of a particular subject. According to Zahir Al Zeera (2001), there is no difference between each field because everything including knowledge begins and ends with the name of the Allah. Thus, there is no issue to be raised or disputed in order to build character through the integration between the 'faith and devotion to God' value with the syllabus in the teaching of Technical and Vocational Education (TVE). Therefore, there is a possibility to integrate the 'faith and devotion to God' value within the TVE syllabus in order to develop good character among young generation. This value bring humans near to the Creator and make them more afraid to disobey Creator's laws as they realize the need of Creator's blessing on their life (Sidek, 2011; Rohana, 2010; Ros Eliana, 2014).

In Malaysia there are 5 Teachers Training Institutes; Temenggong Ibrahim Campus, Tun Hussein Onn Campus, Technical Campus, Sultan Mizan Campus, and Perlis Campus, offering Design Technology field which are related to TVE. This field is under the auspices of the Department of Life Skills. T&L in this field, either in theory or practice has to meet the requirements of the subject objectives and NEP goals, which is to produce a balanced harmonious human. Hence, Guide Module for Integrated Holistic Teaching (IHT) was developed by the researcher to expose, create awareness and appreciation among TVE trainee teachers on holistic integration approach which stress on integration of 'faith and devotion to God' value in the T&L of TVE syllabus.
Guide module for IHT is a guidance in nature because this module is a tool, resource or motivator material and catalysts for trainee teachers to perform various activities in order to achieve Malaysian’s Education goal as stated in NEP. According to Jamaludin (2002), facilitators need to utilize this guidance module in the form of short courses or long-term so that the implementation of the objective of this module can be achieved effectively.

According to Rusell (1974) modules is a package of teaching related to a subject concept unit and individual effort on teaching that allows one to capture one unit of subject matter before moving to other units. Meyer (1988) state, the module is a specific form of learning resources. Therefore, it seems necessary to have a content module that can move on their own and have a self-instructional package to stimulate the students’ need and capabilities based on the characteristics of the module.

Mohd Yusof (1993) felt that the module was developed based on the aspirations, experiences and summarry of reading. The aim is to enhance participants understanding of the learning goals. In addition, the module can elicit participants’ understanding of the intricacies of learning as well as related aspects through the structured activities inside the module. Based on Sidek and Jamaluddin (2005) module is a unit of T&L that discusses a particular subject in a systematic and sequential order to facilitate students to learn on their own in order to capture a unit of learning easily and accurately. Therefore, modules can be used either for T&L process or training purposes.

In conclusion, the module is a structured resource, developed as a result of the observations of the knowledge acquired through study, reading, observation and experience of T&L. The purpose of this module is to address the emerging issues around T&L through carefully planned activities to load the module content.

There are many modules that have been developed to simplify the process of T&L. However, there are no modules developed to create awareness and appreciation of 'faith and devotion to God' value in teaching or teaching approach known as Holistic Integration (Musak, 1996; Rezki Perdani et. al., 2009; Mohd Fauzi and Mohd Khairul Naim (2012) . Despite the fact that balanced human states that a balanced human development in terms of physical, emotional, spiritual and intellectual, should be developed in line with the paradigm that integrates the awareness and appreciation of 'faith and devotion to God' (Tajul Arifin and Nor ‘Aini, 1998).

2.0 PROBLEM STATEMENT

Humans have a body, awarded with intelligence, energy and strength that can be leveraged for personal well-being, family and community development and civilization development of a country (Mohd. Yusof, 2007). In order to perform this task, human potentials have to be developed holistically. However, current practice in T&L process has fail to develop human potential, especially spiritual potential properly (Habsah and Aminuddin, 2009). Therefore, there is a need to improve T&L process.

According to Habsah and Aminuddin (2009); Maimun Aqsa, Ramlee and Abdullah (2009); Rohana (2009); Rohana, Kamarudzaman and Roziah (2010); Mohd Anuar and Rafidah (2011) and Muhamad Afzamiman (2012), the integrated holistic approach in education which focuses on developing intellectual and spiritual potential are relevant and importance to the country. Furthermore, Mohd Fauzi and Mohd Khairul Naim (2012) states that the needs of effective integrated modules which can helps in developing self esteem individual is so important. No matter how, there are no studies on the development of Guide Modules for IHT in Malaysia to create awareness and appreciate the integration of highest values which is ‘faith and devotion to God’ through intellectual subjects. Therefore, this efforts which is to develop a valid and reliable modules based on the procedures of module development is relevant and significant.

3.0 OBJECTIVE

This study was conducted to evaluate the Guide Module for IHT, developed by the researchers. Therefore, to determine the reliability of Guide Module for IHT, the following research question is presented:

i. What is the level of reliability of Guidance Module for Integrated Holistic Teaching?

4.0 METHODOLOGY

4.1 Research Design

This study used a quantitative design to assess the reliability of the Guidance Module for IHT. The procedure involve are as Figure 1.
4.2 Content of Module

Table 1 Content of Module

<table>
<thead>
<tr>
<th>Sub-Module</th>
<th>Objective</th>
<th>Name of Activity</th>
<th>Duration</th>
</tr>
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</table>
| Ice Braking | - Knowing each other  
- Build relationship between facilitator and participant  
- Build relationship among participants  
- Strengthen the cooperation among participants  
- Familiarize participants to discuss and make decision  
- Fostering cooperation  
- Accept a career as a teacher sincerely  
- Recognising the importance of teaching profession | Activity 1: We are the best | 30min |
| Look at you | - Identify the personal qualities  
- Understand the need to change  
- Improves performance life  
- Knowing the purpose of life  
- Understanding the purpose of life  
- How importance back to the Creator (real goals in life) | Activity 4: Poison box  
Activity 5: Brick House with the paper pillar | 30min  
60min |
| Treatment | - Recognizing the function of the soul, the heart, soul and mind  
- Relateate a monotheistic faith through the heart, spirit, soul and mind into the teaching process | Activity 6: Masterchef | 60min |
| Bidder | - Draft an integration holistic approach lesson plan  
- Prepare an integration holistic approach lesson plan | Activity 8: Check-up | 60min |
All activities were arranged structurally based on expertise opinion. The activities can instill the ‘faith and devotion to God’ value and lead TVE trainee teachers to know themselves, returning them to the Creator and thus make them more balanced, holistic, harmonious and responsible in implementing quality teaching process, as enshrined in the NPE.

4.3 Sample

The study was conducted at the Department of Life Skills, Teachers Training Institute, Temenggong Ibrahim Campus, Johor. A study was conducted with 16 Design and Technology Semester 3 trainee teachers. This group has been chosen as sample after considering the following factors:

i. Module reliability process involving exposure of module to the sample. Thus, the sample for module reliability must be different from the samples used for the study of module effectiveness to prevent leakage. The main sample went for practicum for three month when the reliability of the study was conducted.

ii. It is difficult to separate this group of trainee teachers from their classes as they have different time table of class. According Shaharom (1990) in the social study, members of the group classes are hard to separate due to administrative sanctions, law, ethics and class attendance.

iii. Trainee teachers have been exposed to the Life Skills Teaching Method for Primary Schools (RBT 3105)

4.4 Instrument

A survey instrument has been used to measure the reliability of the module. The instrument consists of 79 item was develop based on activities available in the module. This approach has been suggested by Vale (1998). Since items that were develop based on activities required detailed revision and refinement (Jamaludin et. al, 2009), 3 experts has been involved to review and verify the items in the instruments. They are:

i. Dr Haryati Bt Yaacob,
   Lecturer, Faculty of Civil Engineering, UTM Skudai.

ii. Dr Mazlan Aris,
    Senior Lecturer, Teacher Training Center Temenggong Ibrahim Campus

iii. Dr Baharudin bin Yaacob,
    Excellect Lecturer, Teacher Training Center Sultan Abdul Halim Campus

The appointment of expertise in this research is base on Tajul Arifin (1997) and Chua (2011). The expert is person who has good personalities, be respected by other professionals and published a lot of papers either nationally or internationally (Tajul Arifin, 1997). According to Chua (2011), in order to review and validate the items, expert from difference field can contribute to confirm the level of understanding for each item since they are new with all the terms where it means if they understand well, the objective of each items is considered achieved and yet will strengthen the questionnaire.

4.5 Data Analysis

The collected data for reliability test of Guide Module for IHT has been analyzed using Bond&Fox Step software which refers to Rasch Measurement Model. The results will be shown in a form of; summary statistics, item fits, unidimensionality, Rating Scale Validity and Person-Item Map.

5.0..RESULTS

The findings of data analysis have been summarized according to the following topics:

5.1 Summary Statistics

A total of 1248 data point arised from 16 respondents on 79 items has been analysed. It yields a Chi-Square value 1309.49. The test rawscore Cronbach Alpha register a reliability 0.96 which allows futher analysis of the instrument.

Table 1 show the item reliability is a fair 0.69, while the person reliability is a high 0.94 indicating sufficiency of item range. The maximum item measure is +3.06 logit (SE: 1.86) as compared to the maximum person measure +6.93 logit (SE: 1.02). As the maximum person measure is higher than item measure, it shows that no difficult item is involved and the person within this range is a high ability person.

The minimum item measure is -3.89 logit (SE: 0.51) against the least agreeable auditor is at -0.89 logit. This shows that the items below -0.89 logit is considered as easy items because all participants gave good responds to this items.
### 5.2 Item Fit

Generally the items have positive Point Measure Correlation but only item 33 shows negative and the measurement error mean of $SE + 0.64\logit$. Although item 33 shows negative Point Measure Correlation, it still has to be maintained because it relates with the other items in the same activity.

An item having larger MNSQ than the sum of the mean of MNSQ and SD gives an indication of possible high $z$-std; in this case $1.32\logit$ thus item misfit. Figure 3 shows Items 28, 76, 73, 78, 72, 36, 79, 62, 47, 27, 46 and 45 are misfits with MNSQ > $1.32\logit$ but the $z$-std are still in range $-2 < z$-std < +2. Hence, all items were maintained.
Unidimensionality is crucial to assure the instrument is measuring the specific objectivity, in this case value for each activity in the module. Rasch Analysis applies the Principal Component Analysis (PCA) of the residuals; i.e. how much variance is the instrument in measuring what it is supposedly to measure. The raw variance explained by measures is 82.3% closely match the expected 82.0%. It meets the unidimensionality requirement minimum of 20% and Rasch cut-low point of 40%. In addition, the unexplained variance in the first contrast of good 2.7% (<15%) is obtained as tabulated in Figure 3.

Rating Scale Validity

Scale calibration is of utmost important in any measurement system. The validity of the scale ultimately dictated all. Rasch Analysis offer this very unique verification process to validate the rating assumed. The Observed Average increases steadily and consistently from -0.20 to 3.74 indicating consistency in the response pattern. The Rasch-Andrich Threshold is where the transition of decision making occurs from one scale to another. This is captured in the Structure Calibration column where the difference shall be 1.4logit apart but not exceeding 5.

It was found that the separation between rating 3-4 and 4-5 is > 1.4. Hence, no threshold was detected for this measurement.

Person-Item Map

This is the heart of Rasch Analysis. It shows all and more importantly the hierarchy of difficulty order. This will be the premise of the instrument construct validity acceptance and proofing the reliability of module. All the items are in good hierarchical order with an item measuring range of 6.95logit. As detected earlier, there was no difficulty due to more competent Auditors. There were person free items who give a good responds to the items which is considered easy. Both of these cases were affected by module treatment.
Figure 7 Person-Item Map
The effectiveness of each activity was referred to the total number of easy items. According to the Figure 7, the participants are more competent in activity 1, since 100% items are below the minimum participant logit. It was followed by activity 7 (90.91%), activity 4 and activity 5 (85.71%), activity 6 (76.47%), activity 3 (62.50%), activity 9 (50%) and activity 2 (42.86%). Although easy items for activity 2 is less than 50%, this will not affect the effectiveness of module since the balance of items (51.74%) are in the range of moderate items.

6.0 DISCUSSION

Table 1 shows the summary of reliability analysis on the Guide Module for IHT. The summary of the finding was tabulated and analysed across the board on the fit statistics including the MNSQ, z-std, reliability, SE and variance measured. Person reliability is a high 0.94 while item reliability is a fair 0.69. However, all items meet the range of infit / outfit Mean Square and the range of infit / outfit z-standard, indicating sufficiency of item range as stated in Rating Scale Instrument Quality Criteria by Fisher (2007). Since all the following parameters are finally met, it means the questionnaire to measure the reliability of module is valid and accepted. At the same time, a better module is finally developed.

<table>
<thead>
<tr>
<th>Reliability</th>
<th>Item: 0.94</th>
<th>Person: 0.69</th>
<th>Person Separation: 4.12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Infit MNSQ SD</td>
<td>Item: 0.94</td>
<td>Person: 0.69</td>
<td></td>
</tr>
<tr>
<td>Mean Error</td>
<td>Item: 0.64</td>
<td>Person: 0.32</td>
<td></td>
</tr>
<tr>
<td>PCA Variance Measured</td>
<td>82.3%</td>
<td>Unexplained 1st Contrast: 2.7%</td>
<td></td>
</tr>
</tbody>
</table>

Satisfactory reliability is influenced by the procedure in developing the guidance module. Drost (2011) states that reading and details review on every paragraph by experts will improve the validity of module objectives and subsequently affect the reliability of the module. Guide Module for IHT was referred to appointed experts to review and then, further refinement work was undertaken from what have been proposed and discussed with the experts. This process was repeated three times until experts agreed to validate the content and modules formats. Scholarly module evaluation is so important to promote the quality of modules to a high level (Mazlan, 2010).

The high reliability of Guide Module for IHT explains that the module is accurate and consistent. Nunnally in Drost (2011) stated that high reliability is obtained when the data is stable and all respondents gave the same answer. The respondents have good perception on formats. The respondents have good perception on formats. The 'faith and devotion to God' value is important and should be instilled among TVE trainee teachers to realize the reasons why they had been created in the world as a caliph; responsible on their own development, others development and environmental wellbeing. With this responsibility, they will play their role as asked by Creator in order to gain Creator's blessing. The 'faith and devotion to God' value is important and should be instilled among TVE trainee teachers because they are assets to confirm the success of country. With this resource, the researcher can continue the research on the effectiveness of Guide Module for IHT.

7.0 CONCLUSION

Based on the discussion, it can be concluded that this Guide Module for IHT achieved the objective of its development. This module is reliable and can be accepted as a medium to create awareness and appreciation of 'faith and devotion to God' value among TVE trainee teachers. This value make the TVE trainee teachers realize on the concept ‘good for heaven and bad for hell’, and more afraid to disobey Creator's laws. This module also can lead TVE trainee teachers to realize the reasons why they had been created in the world as a caliph; responsible on their own development, others development and environmental wellbeing. With this responsibility, they will play their role as asked by Creator in order to gain Creator's blessing. The 'faith and devotion to God' value is important and should be instilled among TVE trainee teachers because they are assets to confirm the success of country. With this resource, the researcher can continue the research on the effectiveness of Guide Module for IHT.

References


