Construction of the Myanmar Version of the Attitude toward Education Scale

Khin San Hlaing[1], Van Lar Liana[2], Thin Thin Soe[3]

Abstract

The present study reports the results of an attempt to modify Mitchell's (1941) Attitude toward Education Scale to suit Myanmar cultural setting. The Attitude toward Education Scale developed by Mitchell assesses attitude toward education, school and school practices. This scale consists of 34 items. Seventeen items measure strict practices in school and another seventeen items measure less strict school practices. There are three main procedures in this study. Firstly, Mitchell's Attitude toward Education Scale was adapted into Myanmar version and an item analysis procedure was carried out by using a sample of 220 high school students. According to the results, 14 items measuring strict school practices and another 14 items measuring less strict school practices were significant at .05, .01 or .001 level. These remaining 28 items were organized as a single test and named as "The Myanmar version of the Attitude toward Education Scale (MAES)". Then, the internal consistency reliability of this test was evaluated by using Cronbach alpha with a sample of 220 subjects. The alpha coefficients were found to be .43 for the Strict Scale and .56 for the Less Strict Scale. Finally, test-retest reliability coefficients were examined with a sample of 207 high school students and the values were found to be .54 for Strict Scale and .67 for Less Strict Scale. The Myanmar version of the Attitude toward Education Scale appears to be an internally consistent and reliable measure of different attitudes upon education among high school students in Myanmar.

Keywords: internal consistency reliability, test-retest reliability

Introduction

The global claim that education is a major, sure and potent instrument for the attainment of sustainable development in all human society today cannot be overemphasized (Nwanekezi, et al, 2011). But education is viewed as a basic human need, an integral part of the quality of life, a support for moral and social values, and an instrument for economic productivity. The process of education is concerned chiefly with the interaction between the teacher and student together with the classroom practices that occur within the school environment (Ministry of Education, Union of Myanmar, 2007; UNISCO, 2010).

The major stakeholders in education are parents, teachers and students. The success or failure of the education process depends on the interaction of these three groups and the

changing roles they play in, or are assigned by, the society in which they live. The largest and the -most important stakeholders in education are the students (Han Tin, 2000).

Schools cannot ignore the impact of student's attitude. An attitude is an expression of favor or disfavor toward a person, place, thing, event, education and so on. This definition of attitude allows for one's evaluation of an attitude object to vary from extremely negative to extremely positive, but also admit that people can also be conflicted as ambivalent toward an object meaning that they might at different times express both positive and negative attitude toward the same object. Many measurements and scales are used to examine attitudes. Attitude can be difficult to measure because measurement is arbitrary, that is people have to give attitudes on a scale to measure it against, and attitudes are ultimately a hypothetical construction that cannot be observed directly (Eagly & Chaiken, 1995).

---

[1]Professor and Head, Dr., Department of Psychology, University of Mandalay
[2]Professor, Dr., Department of Psychology, Myitgyina University
[3] Staff Officer, Union Civil Service Selection and Training Department, Union Civil Service Board, Naypyidaw

Definitions of attitude towards education are numerous as researchers' and thinkers' conception, ideas and perspectives vary. According to a point of view, the attitude towards education is just a positive or negative emotional disposition towards school practices (Zan & Martino, 2007). Hart (1989), considering attitudes towards education from a multidimensional point, defines an individual's attitude towards education as a more complex way by the emotions that he/she associates with school practices, his/her beliefs towards education, which could be either positive or negative and how he/she behaves about practices in school. Research on attitude in education has been motivated by the belief that "something" called "attitude" plays a crucial role in education but the goal of highlighting a connection between positive attitude and achievement has not been reached conclusively (Zan & Martino, 2007). It is therefore imperative to continue to search for linkages between instructional methods that could facilitate the development of more positive attitude towards education about in school practices.

In school across the state, talented educators are breaking the old mold, employing new practices that are transforming student achievement. Taking any or all of them to larger scale can help education achieve its ambitious objective (Einstein, 2008).

Attitude towards educational use within the school setting is an important and often overlooked component of successful curriculum integration of education. The principals and staff of each school were very forthcoming in describing their approach. Each school had an inventory of practices that they believed were especially important to their success (Stone, 2007).

The purpose of the present study attempts to develop the Myanmar version of the Attitude toward Education Scale. If this specific form of the Attitude toward Education Scale is available, the high school students' attitude toward education in Myanmar cultural setting could be assessed.

Scale Development

In order to construct the Attitude toward Education Scale in Myanmar version, three main procedures which need to be a standard psychological test in our cultural setting were conducted. Firstly, the original Attitude toward Education Scale developed by Mitchell (1941) was studied and the items included in this scale were translated into Myanmar language. Then, items analysis procedure was followed to analyze the items whether they are suited to our own cultural setting or not. Finally, reliability evaluations of this scale were conducted to determine whether this scale is consistent and reliable measure or not.

Writing the Items and Planning the Test: The items included in Myanmar version of the Attitude toward Scale were based on Michell's (1941) Attitude toward Education Scale (AES). AES was intended to measure attitude toward education, school and school practices. This scale consists of Scale A and B. One form of the scale, Scale A, was formulated by writing 34 statements about practices in school. Items that suggested more serious, difficult, and rigid practices were given odd numbers and those which suggested easing the pupil's task were given even numbers. Scale B consisted of the same items, but arrange in a different order. The response mode was that subjects check each item with which they agree.

In Mitchell's study, the attitude score is the difference between the numbers of statements checked which indicated more rigorous attitudes and those checked that indicated less rigorous attitudes. If this score is positive, the score is interpreted as revealing a favorable attitude toward strict, rigorous school practices; if it is negative, the attitude is presumed to be favorable toward less strict rigorous school practices. Reliability was estimated by correlating

the scores earned on Scale A and those earned on Scale B administered twelve weeks later. The test-retest reliability of AES was .71.

Mitchell's (1941) AES was adapted and descriptions were translated to construct the Myanmar version of Attitude toward Education Scale (MAES). As the nature of test items, 17 strict items and 17 less strict items were paired as in Mitchell's study. For example, item No. 1 (attitude toward strict school practice) and item No.2 (attitude toward less strict school practice) are paired; item No. 3 (strict) and item No. 4 (less strict) are paired and so on.

Item1. Discipline in schools should be stricter.

Item 2. Pupils should be allowed more freedom to do as they please.

Item 3. Pupil should be required to do more studying.

Item 4. Lessons should be made easier and plainer.

Totally, there are 17 pairs in which number of strict items is 17 and the number of less strict items is17 in the MAES. So, total number of items is 34 in this scale.

In this study, the attitude scores were obtained for two subscales (strict and less strict scale) separately. For each strict item, if a respondent agrees the respective statement he/she will obtain +1 mark. For each less strict item, if a respondent agrees the respective statement he/she will obtain − 1 mark. So, total scores range from − 17 to + 17. If this score is positive (total score between +1 and +17) the score is interpreted as revealing a favorable attitude toward strict, rigorous school practice; if it is negative (total score between -1 and -17) the attitude is presumed to be favorable toward less strict and less rigorous school practices.

Item Analysis

In the development of Myanmar version of Attitude toward Education Scale (MAES), item analysis procedure was followed to analyze the items whether they are suited to our own cultural setting.

Method

Participants

A total of 220 Grade 10 students from No. (17), Basic Education High School participated in this study. They were 104 males and 116 females. The age of this group ranged from 14 to 17 years.

Procedure

To conduct an item analysis for the 34 items Attitude toward Education Scale, the responses of the participants were scored separately to obtain total scores for strict scale and less strict scale. The obtained total scores were arranged by the descending order. From the list of the respondents' score, the upper 27% was taken as high group and lower 27% was also taken as low group. Based on the responses for upper and lower group, item scale correlation was computed for each item. In the computing of item scale correlation, the Phi (ø) correlation method was used. The obtained Phi coefficient was tested for significance by using the relation: Chi Square $= N\emptyset^2$.

Results and Discussion

According to the results, it was found that most of items can discriminate between high-scoring respondents and low-scoring respondents on the scales. All of the strict items

were significant at .05, .01, or .001 levels except only two items. For the less strict items all of the items were significant at .05, .01 or .001 level except only two items, too. These four items that are not significant were omitted in the MAES. And then, another two items which are relevant with not significant items from each scale were also omitted. Thus, the MAES consists of 14 strict items and less strict items. These two scales were then incorporated into single test format and total number of items is 28.

Reliability Evaluation

Two types of reliability evaluation were conducted; internal consistency reliability and test-retest reliability.

Method

Participants

To evaluate internal consistency reliability of this test, a sample of 220 high school students from No. (17), Basic Education High School, Aung Myae Thar San Township in Mandalay was administered by using the 28 items MAES and a group of 207 subjects from this school. participated for test-retest reliability evaluation of this test.

Procedure

For both types of reliability evaluation, the data were collected by following the same instruction and collected data were calculated with relevant statistical analysis by using the same software. For example, before the scale was given to the participants, the instruction was read to the participants in each types of reliability study.

In order to examine internal consistency reliability of the MAES, the data were entered onto a database in the Statistical Package for the Social Science (SPSS, 11.5 version). Then, coefficient alpha available in SPSS was used to analyze the internal consistency reliability of the MAES. This procedure was taken separately for each scale.

For the test-retest reliability evaluation, the test was administered to the same sample group of subjects twice under the same condition. It was administered to the subjects again under the same testing condition two weeks later. For this type of reliability evaluation, the total scores for Strict Scale and Less Strict Scale were obtained for each subject. Then the scores of two administrations for each scale were correlated by using the Pearson Product Moment formula.

Results and Discussion

Internal consistency reliability was computed for each Strict and Less Strict Scale on a sample of 220 students. As shown in table 1, the alpha coefficient of Strict Scale was below the .50 and the alpha coefficient of Less Strict Scale was above the .50**.** According to these results, the internal consistency reliabilities of these two subscales were moderately low.

Table 1. Internal consistency reliability coefficients (Cronbach's alpha) of MAES

No	Description of Scale	Reliability Coefficient
1.	Strict Scale	.43
2.	Less Strict Scale	.56

Results of the test-retest reliability analysis of two subscales were shown in table 2. According to the results, test-retest reliability coefficients were found to be .54 for Strict Scale and .67 for Less Strict Scale. Results indicate that Less Strict Scale is temporally stable although the reliability coefficient of Strict Scale is relatively low.

Table 2. Test-Retest reliability coefficients of MAES

No	Description of Scale	Reliability Coefficient
1.	Strict Scale	.54
2.	Less Strict Scale	.67

Summary and Conclusion

The primary aim of this study is to construct the Myanmar version of the Attitude toward Education Scale. Mitchell (1941) developed the Attitude toward Education Scale to measure an individual's proneness to be strict, rigorous or less strict, less rigorous in school practices. However, it is an English expression and may not be appropriate for Myanmar cultural context. Therefore, this study attempted to construct the Myanmar version of the Attitude toward Education Scale based on the translation of the original instrument.

In order to do so, we accepted Mitchell's general emphasis on drawing up the initial Myanmar version of the Attitude toward Education Scale, which consists of 17 strict items and 17 less strict items.

To produce the final version of the scale, the data were analyzed using item analysis procedure. The responses of participants were scored separately for strict scale and less strict scale. The strict scores and less strict scores were obtained and arranged by the descending order. From the list of respondents' scores, the upper 27% was taken as high group and lower 27% was also taken as low group. In the computing of item scale correlation, the Phi ($\emptyset$) correlation was computed. The obtained Phi coefficient was tested for significance by using Chi square $= N\emptyset^2$.

According to the results, almost all of the items on each initial scale have the discriminative value and it was found that they can discriminate between high-scoring individuals, and low scoring individuals. After omitting some items which are not significant and relevant with these items, the remaining 28 items (14 for Strict Scale and 14 items for Less Strict Scale) were organized and named as the "Myanmar version of the Attitude toward Education Scale (MAES)". This study presents an appropriate measure to assess Attitude toward Education for Myanmar cultural setting. The alpha coefficients were found to .43 for Strict Scale and .56 for Less Strict Scale. The reliability coefficient for test-retest was found to be .54 for Strict Scale and .67 for Less Strict Scale.

In conclusion, the 28-item Myanmar version of the Attitude toward Education Scale appears to be internally consistent and reliable measure of different attitudes toward education among high school students in Myanmar. The evidence that is available, however, is encouraging, and further research should be undertaken to more fully determine the scale's characteristics.

Acknowledgement

References

Eagly, A., & Chaiken, S (1995). *Attitude strength, attitude structure and resistance to change*. In R. Petty and J. Kosnik (eds.), Attitude Strength. (pp. 413-432). Mahwah, NJ: Erlbaum.

Einstein, A. (2008). Taking Promissing High School Practices to Scale. *Orgen Education Foundation.*

Han Tin, U. (2000). Myanmar Education: Challenges, Prospects and Options. *Journal of Southeast Asian Education / The Official Journal of SEAMEO*, vol,1, no.1, SEMEO, Bangkok.

Hart, L. (1989). Describing the Affective Domain, Saying What We Mean In McLeaod &   Adams (eds). *Affect and Mathematical Problem Solving,* 37-45; New York, Springer Verlay.

Ministry of Education, Union of Myanmar. *Education for All (EFA). Mid-decade Assessment Report.* Yangon, August, 2007.

Mitchell, C. (1941). Do Scales for Measuring Attitudes Have Any Significance? *Journal of Education Research,* 34, 444-445.

Stone, J., E. (2007). *Effective Schools Common Practices.* Twelve Ingredients of Success from Tennessee's Most Effective Schools. West Virginia University.

UNISCO. World Data on Education (7th ed.). New York, 2010.

Zan, R., & Martino, P, D. (2007). Attitude towards Mathematics: Overcoming Positive/Negative Dichotomy. *The Montana Mathamatics Enthusiasts Monograph* 3, pp 157-168. The Monatona Council of Teacher of Mathematics.