

Validation of Measures of Academic Self-Handicapping Behavior and Student Engagement on Muslim University Students

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Abstract: As a preliminary step to studying the reciprocal relationship between student engagement and academic self-handicapping, the present study had the aim of validating two key instruments on the target non-western population. The two instruments in question were 1) the Self-Handicapping Questionnaire (SHQ 2011), and 2) the Student Engagement Questionnaire (SEQ 2011) which consists of i) the Emotional Engagement Scale, ii) the Behavioral Engagement Scale, and iii) the Cognitive Engagement Scale. We wanted to discover the psychometric properties of these instruments when used on an Asian Muslim population, in a predominantly Muslim setting. Principal Components Analysis (PCA) and Confirmatory Factor Analysis (CFA) were employed. Results indicated that both measures had adequate validity and reliability when used on a Muslim population.

Keywords: Academic Self-Handicapping Behavior, Self-Handicapping Questionnaire; Student Engagement Questionnaire; Student engagement

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INTRODUCTION

Most of the researchers define self-handicapping as student's behavior which involves creating obstacles to successful performance on tasks that the student considers important (Rhodewalt, 1994; and Tice, 1991), and when the student fail he/she looks for excuses. For example, blame the teacher, blame the parents, blame the friends. They express themselves as being lazy or shiftless (Covington, 1992) instead of accepting the fact that they have a lower ability in that particular subject and that they need to exert more effort in order to achieve good grades. This implies that self-handicapping behavior is opposite to student engagement.

In some cases when students fear that they will fail they engage themselves in activities that increase their probability of failure (Urdang, 2004). For example, they procrastinate by engaging themselves with many side activities to the extent of having very little time for their revision and fulfilling their assignments. Self-handicapping students tend to have low self-esteem, increase in negative behavior, lack of academic motivation, lack of student engagement and consequently low achievement. This is also confirmed by Bandura (1986) who claim that learning problems and behavioral problems coexist therefore teachers need to be aware that students with one of these problems are more susceptible to the other problem. Individuals' beliefs about the self are organized and involve beliefs about general or global competence as well as beliefs about specific abilities that are valued by the culture (Lotkowski, et al., 2004). Thus, REBT emphasizes the importance of attending to irrational beliefs that that help to create disturbances in individuals' lives (Sharf,` 2004 p322).

Most of the previous studies on students and teachers have been focusing on students' achievement while students are obliged to engage with the university requirements, lectures' requirements, campus activities, rules and regulations so as to have a successful achievement. The most pressing and persistent issue for students and teachers, according to Newman (1992), is not low achievement, but student engagement. According to Finlay (2006), the engaged student is expected to show sustained behavioral involvement in learning activities accompanied by a positive emotional tone. Multicultural Counselling has shown factors like culture, gender, identity and religion as important

aspects of wellbeing (Fuertes and Gretchen, 2001; Sue and Sue, 2003; Pederson, 2007).

Previous studies have identified self-handicapping behavior as one of the major academic concerns in both higher and lower institutions (Rhodewalt & Davidson, 1986; Berglas & Jones 1978; Higgins & Hariss, 1988; Shepperd & Arkin, 1989; Tice & Baumeister, 1990). Today it is still considered an important concern as commented in Palasigue (2009). "In today's post-modern society, it is getting harder and harder to get the students get engaged in classroom instruction and learning" Many of them want to know how to pass the course and get a better career of their choice if they fail to cope with the course, they may choose to apply various psychological, behavioural and/or physical obstructs (Lazarus & Folkman 1984). This academic self-handicapping is a severe problem with emerging adults (Jeffrey, 2007 & Newman 1992) regardless of their nationalities and cultures including the emerging adults from the Muslim world.

Although self-handicapping is evident among tertiary level students, most of the previous studies on self-handicap have been conducted on the primary and secondary school students. For example studies on the influence of the level of academic achievement: - (e.g., MacIver and Epstein, (1993); Blyth Simmons & Carlton-Ford (1993); Eccles, Wigfield, Flanagan, Miller, Reuman & Yee (1989); Epstein & McPartland (1976). Studies on the decrease of self-esteem e.g. Simons & Blyth, (1987); Wigfield, Eccles, Mac Iven, Ruemsn & Midgeley (1991); the increase of psychological distress:- (e.g., Chung Elias, and Schneider (1998); Hirsch & Rapkin, (1987); academic motivation (e.g., Harter, (1981); and (e.g., self-concept: Marsh (1989).

Among the few studies which have been conducted on students of higher institutions, (e.g., Jones and Berglas 1978; Rhodewalt, Morf, Hazlett & Fairfield, 1991; Seligman, Nolen-Hoeksema, Susan, Thomson, Thomson and Karen, 1990; Zuckerman & Tsai, 2005; McCrea, Hirt and Milner, 2008; Pulford, Johnson & Awaida, 2005; Kearns, Forbes and Gardner 2008; Wu, Kee, Lin & Shu 2009; Sahran, 2011; Martin, Marsh and Debus, 1999) however, none of the self-handicapping studies has been conducted in any of the Islamic Institutions.

According to the Council for the Advancement of Standards in Higher Education (CAS, 1999), the mission of university and college

counselling centres is: *“to assist students in defining and accomplishing personal, academic and career goals, by providing developmental preventive and remedial counselling”*. Hence it is pivotal to investigate significant predictors of academic self-handicapping which will help counsellors and educators, in identifying and rectifying academic self-handicapping and consequently improve students’ academic engagement and achievement.

Many changes experienced among youths have been found to have a negative influence on their efficacy which includes practicing self-handicapping behavior, reduction in the level of student engagement, decreased self-esteem and increase in psychological distress as noted by Sahranc (2011) who proved a significant relationship between self-handicapping, depression, anxiety and stress similarly Hobden and Pliner (1995) who reported a positive relationship between self-handicapping and negative emotional mood state.

For Muslims, failure to practice engagement is believed to ultimately lead not only the loss of worldly successes, but also the loss of successes of an afterlife which is of greater importance to them than the present life. Islamic concepts are inculcated in a Muslim’s mind from child hood until the last day of his/her existence in this world, yet Muslim youths practice self-handicapping behavior in their day to day life. “Self-handicappers choose obstacles to successful performance that would enable them to find excuses for failure away from their competence and onto the acquired obstacle, in so doing they try to avoid disconfirmation of a desired self-concept” (Rhodewalt & Davison, 1986).

According to the attribution theory (Weiner, 1974; 1986), individuals have a basic desire to balance their perception of present self with a relevant representative standard or future self-image (Scheier & Carver, 1998; 1982; 1983; 1985). Hence, incongruence between how the young adult pursue self and the aspirations pursued may lead the student to maladaptive externalizing behaviours including self-handicapping behavior. By studying what is academic self-handicapping, why people self-handicap and how they self-handicap, counsellors, psychologists and educators can help the handicappers to rectify their negative behavior and solve their existing behavioural problems, in a less destructive way.

Student engagement is related to academic self-handicapping which scholars like Knee and Zuckerman, (1998), Rhodewalt (1994), and Berglas (1985) have reported to be associated with a variety of stable characteristics such as low self-esteem, low perception of control, high self-consciousness and a belief that intelligence is a fixed trait. All these afore mentioned characteristics indicate defensive pessimism which is a cognitive strategy involving setting unrealistically low expectations and thinking of worse outcomes even though one has experienced success in the past (Norem & Counter, 1986).

When all the academic institutions and community at large are able to recognize academic self-handicapping as a major issue faced by many students, then the rate of negative behavior would reduce and higher percentage of students would be fully engaged with their studies. Hence, the final outcome would be the increasing rate of higher achiever in the institutions and nations, which would also boost the national economy and development and also reduce the percentage of low pay workers and jobless people.

Although academic self-handicapping has been studied by many researchers, none of the previous studies used the reciprocal interaction of emotion, cognition and behavior as predictors of academic self-handicapping. Moreover, according to the researchers' knowledge, this is the first self-handicapping study to be conducted within an Islamic higher institution.

The Self-Handicapping Questionnaire (SHQ 2011)

Self-Handicapping Questionnaire (SHQ 2011), is a modified version of the self-handicapping scale of Rhodewalt (1990), which is a 25-item Self-Handicapping Scale that measures the maladaptive behavioral dimension where an individual tend to employ excuses and handicaps in relation to their performance. The higher the total score obtained the more an individual tends to use self-handicapping strategies. Rhodewalt (1990) reported a Cronbach alpha of 0.79 in a sample of 503 participants. One month test-retest reliability was 0.74 in 90 participants. In a study conducted by Ross, S. R.; Kelli E. & Rausch, M. K. (2001), on Self-Handicapping and the Five Factor Model of Personality, Cronbach alpha was 0.76, indicating an adequate internal

consistency. The predictive ability of the scale has been confirmed by a number of studies (Rhodewalt, 1994, 1990 and 1986). Our modified SHQ (2011) has been reduced to 20 items where seven items have been restated (Item 5, 6, 8, 12, 16, 18, 19). The scale of SHQ (2011) is between 1 and 7 i.e. from disagreeing very much to agreeing very much.

The reliability of SHQ (2011) was checked during the pilot study with a sample size of 386, and an Alpha reliability of 0.75 was obtained which is within the range of results that were obtained from the previous studies. According to George and Marley, (2003), this result is acceptable.

Student Engagement Questionnaire (SEQ 2011)

Student Engagement Questionnaire (SEQ 2011) as shown in Appendix B has been adapted from a school engagement scale which was developed from the 3 domains of the school engagement, extracted after the Confirmatory Factor Analysis (CFA) of the student engagement questionnaire. According to Finlay, (2006), the original questionnaire was developed for the intensive sites of USA, by the National Center for School Engagement (NCE, 2006). In a report of a study entitled Quantifying School Engagement, Finlay (2006), explained the process by which NCE (2006) created the school engagement survey as well as the reliability and validity of the instrument. Good result was obtained, whereby all the three constructs were between Cr Alpha 0.79 and 0.92 except for the behavioral engagement at one of the schools (Jacksonville) which was 0.50. Our instrument adapted all the three scales but with some modifications, by changing negative questions to positive questions. The scale of SEQ (2011) is between 1 and 7 i.e. from disagreeing very much to agreeing very much.

The Present Study

As a preliminary step to studying the reciprocal relationship between student engagement and academic self-handicapping, the present study had the aim of validating two key instruments on the target non-western population. The two instruments in question were 1) the Self-Handicapping Questionnaire (SHQ 2011), and 2) the Student

Engagement Questionnaire (SEQ 2011) which consists of i) the Emotional Engagement Scale, ii) the Behavioral Engagement Scale, and iii) the Cognitive Engagement Scale. We wanted to discover the psychometric properties of these instruments when used on an Asian Muslim population, in a predominantly Muslim setting.

Population and Sampling

Population and site of this study has been selected based on the present theoretical study which is aiming at studying the predictors of academic self-handicapping behavior among Muslim students. Hence, International Islamic University Malaysia was selected as a site for conducting this study because it is the only Public International Islamic University in Malaysia (where this study was carried-out). IIUM university is having the highest percentage of International students (representing more than 100 countries in the world) when compared to other private International University in Malaysia. Moreover, the researcher gave a priority in studying Muslim students because none of the Islamic Institutions has yet conducted a self-handicapping study. The total population of postgraduate students (1,114) was excluded from the total population of 29,211 IIUM students in representing the population of IIUM undergraduate students according to the aims and objectives of this study, hence the study dealt with the total population of 18,097 undergraduates.

In representing the population of undergraduate students of an International Islamic University, a proportionate stratified random sampling was applied. "Stratified sampling is a quantitative sampling procedure in which researchers stratify the population on some specific characteristic (e.g. gender) and then determine the sample group by using the random sampling, from each stratum of the population" (Creswell, 2005 p599). It has also been defined as "a process of selecting a sample in the same proportion that they exist in the population" (Gay 2000 p126); therefore this study calculated the sample by using gender proportions

The total population of IIUM undergraduates which was obtained from Admission and Record office in October (2011) is 18,097, where 7,272 (40%) are male students and 10,825 (60%) are female students (Fig 3.1). Comrey & Lee (1992) suggested an excellent assumption testing sample size of above 1000 therefore, through the

proportionate stratified random sampling (Fig 3.1), the researcher study circle II students who were expected to be 1,0355 (575 Males and 780 Females).

Instrumentation

This study utilizes two types of instruments which include:

Self-Handicapping Questionnaire (SHQ 2011)

Student Engagement Questionnaire (SEQ 2011) consisting of:

Emotional Engagement Scale

Behavioral Engagement Scale

Cognitive Engagement Scale

Both questionnaires applied the Likert scale which range from 1 (disagree very much) to 7 (agree very much) as has been a traditional practice of many researchers who frequently use 5 to 9 point response scales (Schaefer and Presser, 2003). Likewise, Krosnick and Fabrigar (1997) suggested that seven point scales were optimal, and that numerical scale values may be easier to hold in memory than more complex verbal labels therefore, both scales had no wordings in between “disagree very much” and “agree very much”. Respondents were free to think and decide where they belong between 1 and 7. This is also in agreement with various researchers including Saris and Gallhofer (2007), who suggested that not providing a neutral middle category improves both reliability and validity, otherwise information about the real direction which the respondent leans on, might be missed (Converse and Presser, 1986). However, some of the respondents demanded to be told what meant by 2, 3, 4, 5 and 6, the answer was based on the importance of assessing themselves without the influence of others or anything else.

RESULTS AND DISCUSSION

Reliability/Internal Consistency of SEQ (2011)

Assessment for the reliability of SEQ (2011) was done during the pilot study with a sample size of 386 by utilizing SPSS 16, and good result was obtained as indicated in table 1

Table 1 Reliability of Student's Engagement Questionnaire (2011)

Variables	No of Items	Sample Size	Alpha Cronbach
Emotional Engagement Variables	14	386	0.87
Behavioral Engagement Variables	14	386	0.80
Cognitive Engagement Variables	16	386	0.84

All three scales which form the SEQ (2011) maintained good Cr. Alpha of between 0.87 and 0.80 therefore, we consider our instrument as a good instrument as also recommended by many researchers including George & Marley (2003), who highlighted a common rule of thumb for describing internal consistency as: Cr Alpha ≥ 0.9 = excellent; ≥ 0.8 = good; ≥ 0.7 = acceptable; ≥ 0.6 = questionable; ≥ 0.5 = poor; and < 0.5 unacceptable.

Fifteen students were also interviewed in three different Focus Group Interview sessions. Four brothers were involved in the first focus group interview; the second group consisted of six sisters; while the third group consisted of three sisters. The responses of all the interviewees indicated the existence of self-handicapping behavior among the IIUM undergraduate students especially the Halaqah students. Hence, the responses obtained were adequate for verification.

According to the agreement between the researcher and the assistant director of CCAC (2011), 1,032 questionnaires were issued to 31 chief facilitators of Halaqah II students. But, only 990 questionnaires were handed over to chief facilitators who were present during the facilitators' meeting with the assistant director of the CCAC on 24th Sept. 2011. The rest of the questionnaires were collected from the office by the chief facilitators as instructed by the assistant director of the CCAC and the researcher. Chief facilitators (CF) were instructed to conduct the survey to all their students and then collect the questionnaires and deliver them either to the assistant director of CCAC or to the researcher and the researcher finally collected all the filled-in questionnaires for analysis. A total number of 882 questionnaires were returned within the period of three months. Data from the first 386 respondents was utilized in

assessing the reliability of the two questionnaires which were applied in this study. The results are indicated in table 3.2.

MODEL SPECIFICATION

According to the underlying theories, the researcher drew the theoretical model of POASH which forms the baseline of this study thus, four basic individual constructs were specified (Table 2) and drawn (see Figures 1, 2, 3 & 4) accordingly.

Table 2 Specifications of the five construct of the POASH Model

FOUR MEASUREMENT SCALES	TOTAL ITEMS
OF POASH	
Emotional Engagement	14
Behavioral Engagement	14
Cognitive Engagement	16
Self-handicapping Behavior	20
TOTAL	64

TEST OF CRITICAL ASSUMPTIONS IN FACTOR ANALYSIS

Prior to performing Confirmatory Factor Analysis, the suitability of data for factor analysis was assessed. Principal Component Analysis was carried out during the pilot study with the aim of defining the underlying dimensions of the collected data in the pilot study.

Individual Specification of the four factors of the POASH Model

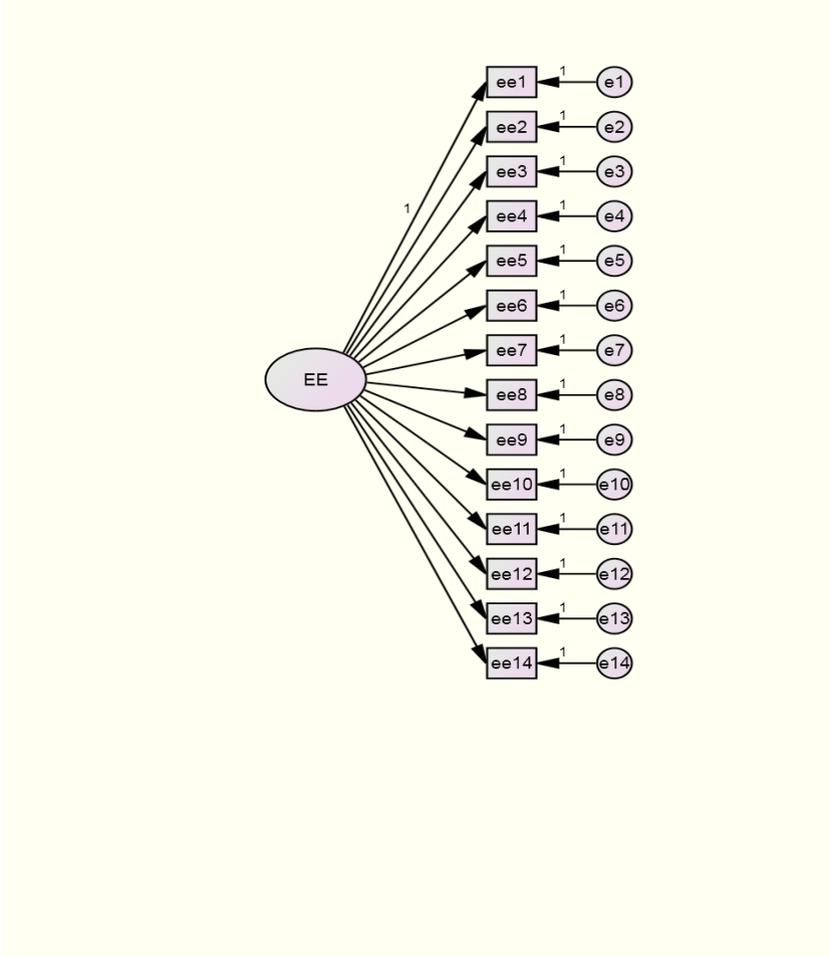


Figure 1: Emotional Engagement Construct

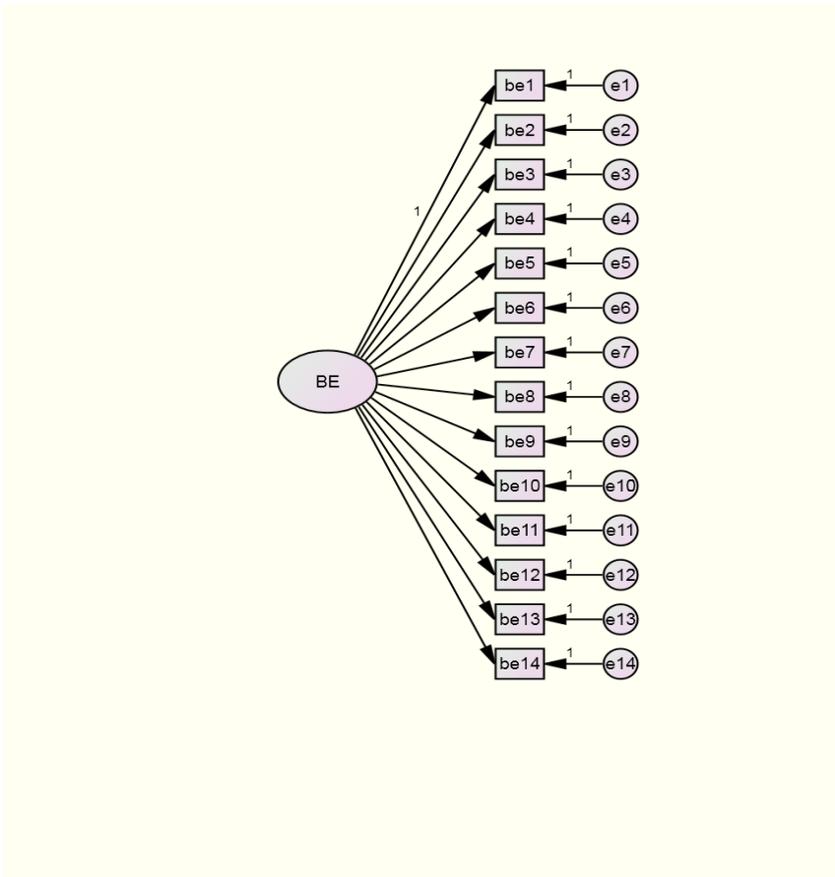


Figure 2 : Behavioral Engagement Construct

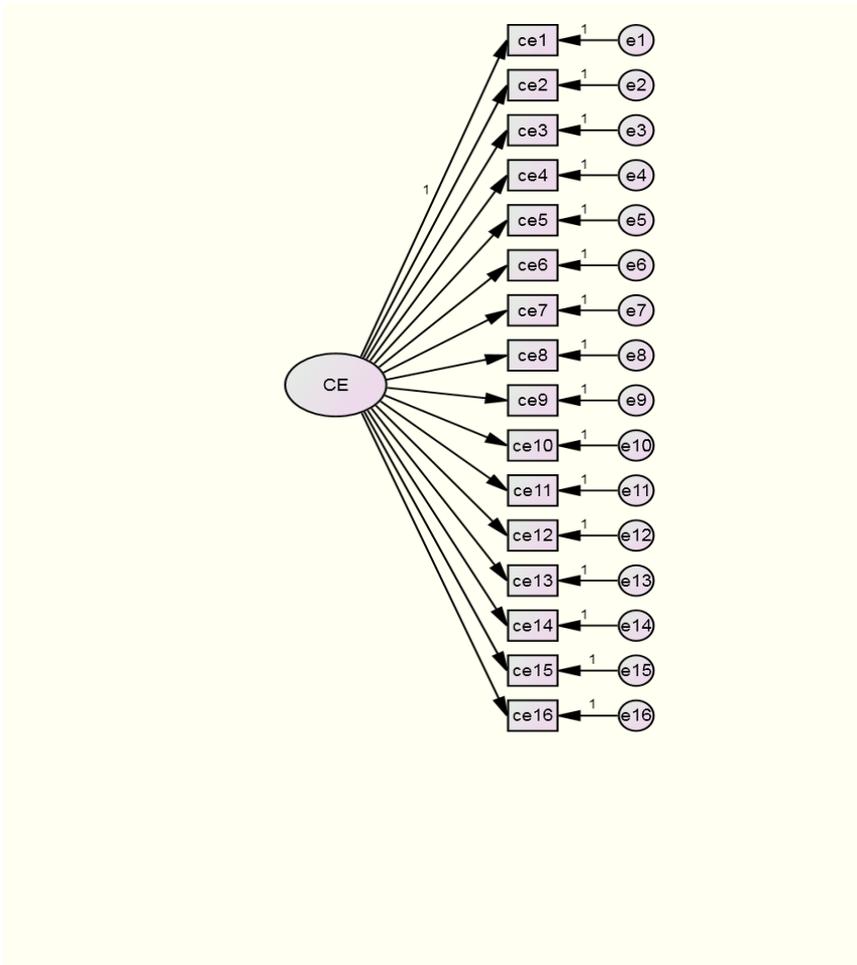


Figure 3: Cognitive Engagement Construct

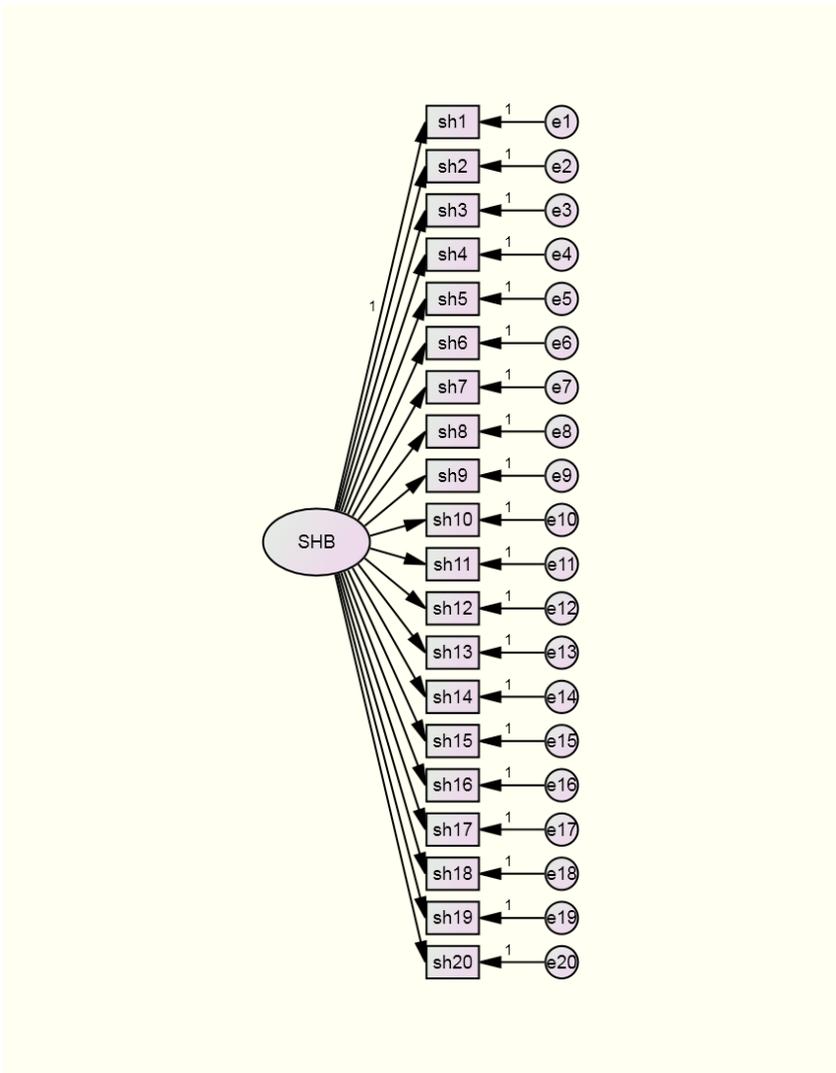


Figure 4 : Self-Handicapping Behavior Construct

Results of the Bartlett's test of Sphericity

The test of critical assumptions in factor analysis was carried out whereby the result of Kaiser-Meyer-Olkin and Measure of sampling

adequacy calculated during the pilot study with a total sample size of (N=790) for all the three scales of student engagement were more than 0.8 and the SHB was 0.78 (Table 3).

Table 3 KMO and Bartlett's Test of the 4 scales of POASH

Scales of use model	KMO	Chi-square	Df	Significance
Emotional Engagement	.89	4.44	91	.000
Behavioral Engagement	.82	2.99	91	.000
Cognitive Engagement	.86	3.92	120	.000
Self-handicapping Behavior	.78	1.75	171	.000

Because all the four scales of POASH are beyond the normal KMO which is ≥ 0.6 therefore, KMO results indicate an adequate measure of all the four scales. This is also supported by the results of Bartlett-Sphericity test which revealed that all four scales of POASH model are statistically significant with p-values of 0.000, whereby significant Bartlett's Tests of Sphericity is ≤ 0.05 (Pallant, 2005, p.182) and χ^2 of between 1.75 to 4.44, which suggests that Factor analysis is appropriate and that the sample size is adequate for meaningful factorability (Pett, Lackey, and Sullivan, 2003).

COMPONENT MATRIX RESULTS OF THE THREE SCALES OF SEQ (2011)

Table 4 Emotional Engage. Component Matrix

	Component		
	1	2	3
ee1	.511	.662	
ee2	.549	.654	
ee3	.519	.620	
ee4	.611		
ee5	.697		

ee6	.740	
ee7	.589	
ee8	.707	
ee9	.563	-.492
ee10	.516	.508
ee11	.724	
ee12	.719	
ee13	.688	
ee14	.621	

PCA 3 Components Extracted

Table 5 Behaviour Engagement Component Matrix

	Components			
	1	2	3	4
be3	.739			
be6	.676	-.431		
be14	.668			
be5	.642	-.556		
be2	.597			
be4	.569			
be10	.552			.404
be9	.548		-.420	
be8	.545		-.420	
be11	.510			
be12	.458	.600		
be13	.467	.595		
be7				.571
be1	.459			-.532

PCA: 4 components extracted

Table 6 Cognitive engagement Component Matrix

	Component			
	1	2	3	4
ce5	.673			
ce15	.656			
ce3	.638	-.443		
ce9	.605			
ce8	.600			-.459
ce4	.597	-.516		
ce12	.586	.507		
ce14	.578		-.573	
ce6	.528	-.435		
ce2	.503	-.473		
ce1	.501	-.409		
ce16	.498			
ce11	.492	.438		
ce7	.444			-.430
ce10	.468	.494		
ce13	.556		-.586	

PCA: 4 Component extracted

Principal Component analysis of all the four scales in our study was carried out in order to select items for Confirmatory Factor Analysis through Structural Equation Modelling. Items were determined from the results of Component Matrix. According to the results of component matrix (Tables: 4 – 6), all three scales of student engagement consist of more than two components however, Items in components No: 2–4 of all the three scales are cross loading (highlighted in green colour) with other factors. Almost all items which are not cross loading belong to the first component of all the three scales and are highlighted in yellow colour.

Thus, all three scales were fixed at one factor extraction and all the 44 items of student engagement scale were analysed using the Varimax rotation where the factor loadings of less than 0.4 were deleted. Tables

7 to 9 highlights retained and deleted items from the three scales of student engagement.

ITEM LOADINGS OF THE RETAINED ITEMS OF THREE FACTORS OF STUDENT ENGAGEMENT

Table 7 Emotional Engagement Scale

ITEM	EMOTIONAL ENGAGEMENT SCALE	Loadings
EE6	I like most of my Lecturers at the university.	.740
EE11	Most of my lecturers understand me.	.724
EE12	I feel excited by the academic work at the university.	.719
EE8	Most of my lecturers care about how I'm doing.	.707
EE5	The Lecturers at my university treat students fairly.	.697
EE13	My lecture room is a fun place to be.	.688
EE14	I feel I can go to my lecturers with the things that I need to talk about.	.621
EE4	I am happy to be at my university	.611
EE7	The discipline at my university is fair.	.589
EE9	Most of my lecturers know the subject matter well.	.563
EE2	When I first walked into my university I thought it was Friendly	.549
EE3	When I first walked into my university I thought it was Clean	.519
EE10	There is an adult at University that I can talk to, about my problems.	.516
EE1	When I first walked into my university I thought it was Good	.511

Note: The alpha reliability = .87

The results indicate emotional and cognitive scales maintained all their items but, behaviour engagement scale lost one of its item i.e. BE 7 = I stay at home after the lecture hours. However, the researcher restricted all three scales into single components due to statistical as well theoretical reasons.

Table 8 Behavioural Engagement Scale

ITEM	BEHAVIORAL ENGAGEMENT SCALE	Loadings
BE3	I always follow the university rules	.739
BE6	I am never absent at the university without a genuine reason	.676
BE14	I always obey university dress code	.668
BE5	I never skip classes	.642
BE2	I work very hard when I am in the lecture room	.597
BE4	I never get in trouble at the university	.569
BE10	I regard all my colleagues equally no matter which country they came from	.552
BE9	I respect most of my lecturers.	.548
BE8	I enjoy the work I do in class	.545
BE11	I always avoid gossiping	.510
BE13	I hate to see two people fighting	.467
BE1	I never thought of dropping out of the university	.459
BE12	I try to avoid arguments	.458
BE7	I stay at home after the lecture hours (Deleted)	Deleted

Note: The alpha reliability = .83

Table 9 Cognitive Engagement Scale

ITEM	COGNITIVE ENGAGEMENT SCALE	Item Loading
CE5	I am getting a good education at my university	.673
CE15	I try my best at the university.	.656
CE3	What I learn in the university is very important for my future life	.638
CE9	When I read a book, I ask myself questions to make sure I understand what it is about.	.605
CE8	Most of my courses are very interesting	.600
CE4	What I learn in the university is very important in getting a good job or career after completion of my studies	.597

CE12	I check my schoolwork for mistakes	.586
CE14	If I don't understand what I read, I go back and read it over again.	.578
CE13	If I don't know what a word means when I am reading, I do something to figure it out, like look it up in the dictionary or ask someone.	.556
CE6	My aim is to graduate from the university	.528
CE2	It is very important to get good CGPA	.501
CE1	I think education is very important	.498
CE11	I talk with people outside of school about what I am learning in class	.492
CE10	I study at home even when I don't have exam.	.468
CE7	My next aim is to do Masters course	.444

Note: The alpha reliability = .84

In summary, the results of component factor analysis of the three scales of student engagement questionnaire indicated all three scales consist of more than two constructs, but most of the items are cross loading with majority of good items existing in the first components. Therefore, due to predetermined theoretical aspects and the statistical findings, all three scales of SEQ were fixed at one factor extraction. Almost all 44 items of SEQ were retained except one (b7) from the behavioral engagement scale which was below 0.4 and therefore deleted during the extraction. All other (43) items were retained for further analysis.

Component Matrix of SHQ (2011)*Table 10 Component Matrix^a- Self-handicapping Behaviour*

	Component				
	1	2	3	4	5
sh5		.651			
sh6	.426	.524			
sh7	.530			-.501	
sh8	.533			-.489	
sh9	.486				-.402
sh10		-.402			
sh11					
sh12					-.467
sh13	.468	-.493			
sh14	.462				
sh15	.479				
sh17	.431				
sh18				.418	
sh19			-.508	.455	
sh20	.594				

PCA: 5 component extracted

Component matrix of self-handicapping questionnaire (Table 10) shows that self-handicapping behaviour scale consists of five constructs but most of the items from component two to five do cross-load (highlighted in green colour) with other indicators with the exception of two good (≥ 0.4) items in the second component and single good items in fourth and fifth components however, majority of good items (highlighted in yellow colour) are in the first component therefore SHB scale is also considered to be a single component scale.

Moreover, self-handicapping behavior was pre-determined to be a single factor according to the theoretical framework, previous studies and results of descriptive statistics therefore, SHQ was also fixed at one factor extraction and all the 20 items of SHQ were analysed using the Varimax rotation where the factor loading of less than 0.4 were deleted (Tables: 11). Thus after the removal of the cross-loading items and factor loadings of < 0.4 only fifteen items out of twenty items of self-handicapping behaviour scale were retained for further analysis.

Deleted items from SHQ (2011) are:

SH1: *When I do something wrong, my first impulse is to blame circumstances.*

SH2: *I tend to put things off until the last moment.*

SH3: *I tend to over-prepare when I have an exam or any kind of performance.*

SH4: *I suppose I feel “under the weather” more often than most people*

SH16: *I do not mind taking a drug that interferes with my ability to think clearly and do the right thing.*

Table 12 Short Self-Handicapping Scale (15)

ITEM	SELF-HANDICAPPING SCALE	Item Loading
14	I admit that I am tempted to rationalize when I don't live up to other's expectations	.707
13	I would do much better if I did not let my emotions get in the way	.650
10	I would rather be respected for doing my best than admired for my potential.	.624
11	I prefer small pleasures in the present, to larger pleasures in the dim future.	.541
7	I tend to get very anxious before an exam or performance.	.753
8	I am easily distracted by noises or my own creative thoughts when I try to read.	.697
20	Sometimes I get so depressed that even easy tasks become difficult.	.590
12	I sometimes enjoy being mildly ill for a day or two, because it takes off the pressure.	.735
9	I try not to get too intensely involved in competitive activities so it won't hurt too much if I lose or if I do poorly.	.583
15	I often think I have more than my share of bad luck in sports, card games, and other measures of talent.	.518

5	I never try to do my best.	.813
6	I do not make proper preparation before I sign up for a course or engage in any important activity	.759
19	I can let emotional problems in one part of my life interfere with other things in my life.	.721
17	I overindulge in food and drink more often than I should.	.600
18	When something important is coming up, like an exam or a job interview, I do not mind sleeping late the night before	.587

Note: The alpha reliability = .7

In summary, results of component factor analysis of self-handicapping behavior scale as indicated in the component matrix results, show several items which are cross loading and also bellow 0.4, with majority of good items in the first component. Therefore due to predetermined theoretical aspects and the statistical findings, the SHQ was fixed at one factor extraction. Five items were removed during PCA due to cross-loading and factor loadings of < 0.4 therefore; only fifteen items were retained for further analysis.

DATA ANALYSIS PROCEDURE

Data analysis procedure of the present study involves two phases, the first phase deals with the initial analysis and the second phase deals with the analysis of the main study. The initial stage involves: data preparation, descriptive analysis and reliability analysis. While main study involves: single groups using two step analysis to develop the first and second order models of university student engagement; Multigroup analysis begins with the formulation of the baseline models, followed by simultaneous analysis between the two gender groups and between the two nationality status groups while simultaneously assessing the interactions between the variables before constraining the models. Lastly the models were constrained but with very little difference between the constrained and unconstrained models

Statistical analysis of the items

The researcher estimated the model specifications and checked the normality assumptions as well as outliers during the pilot study and also

during the main study. In so doing, the researcher checked the means, standard deviation, the skewness and kurtosis which comprehend the Z score: skewness -3 to +3, kurtosis -10 to +10 and critical ratio of multivariate coefficient ± 2.58 (Kline, 2011). Outliers were identified by using Mahalanobis distance and removal of cases with both p_1 & p_2 at Mahalanobis distance of 0.000 was executed. The researcher computed internal consistency/reliability estimates (Cronbach's Alpha) of all the four scales, firstly during the pilot study and secondly during the main study. Both results indicated reliable results of Cronbach Alpha for both instruments i.e. student engagement questionnaire and self-handicapping questionnaire.

DISCUSSION

The results substantiated the psychometric adequacy of the measure of student engagement model as well as the psychometric adequacy of the measure of the structural model of predictors of academic self-handicapping behavior. Both Measures seemed to be sufficient to represent the measurement tools of assessing student engagement and student's academic self-handicapping behavior.

The results validated the good fit of the model of predictors of academic self-handicapping behavior (POASH). This result supports the basic assumption of Relative Emotive Behavior Therapy which posits that cognitions, emotions, and behaviors interact significantly and have a reciprocal cause and effect relationship (Corey, 2013 & 2006). In addition the results are congruent with the results of Ellis, 2001a, 2001b, 2002, 2011; Ellis & Dryden, 2007; Wolfe, 2007) which also found the significant relationship of emotion, cognition and behavior. However, the current study extended this theory by proving that the reciprocal interaction of emotion, behavior and cognition significantly and negatively influence self-handicapping behavior.

Interactions of effects between the variables were revealed and results show a direct significant negative influence of student engagement on self-handicapping behavior and indirect negative influence of emotion,

behavior and cognition via student engagement on self-handicapping behavior.

Gender invariance indicates that the variability of females' behavior engagement explains the highest (77%) followed by that of male students (68%). This is supported by few studies which reported that women self-handicap more than men for example Elliot and Church (2003); and Rhodewalt (1997). However, this finding is contrary to most of the previous findings which directly compared behavioral self-handicap (disengagement or withdrawal practice) and discovered that males practice more behavioral self-handicap than women for example Lucas and Lovalgia (2005), Hirt Deppe & Gordon (1991); Rhodewalt and Davison, 1986; Harris and Snyder, 1986; Berglas and Jones, 1978). Furthermore, Arkin and Oleson (1998) and Rhodewalt and Davison (1986), commented that, repeatedly researchers discover a gender difference whereby men self-handicap more than women. In addition, Rhodewalt (1990) reported that this difference is one of the most consistent findings in self-happing literature.

According to male students' emotional engagement variance predictions are almost the same between male (54%) and female (51%). This tallies with other previous studies on claimed self-handicap (reported stressed), whereby they reported both male and female self-handicap alike (Rhodewalt, 1990; and Jones & Rhodewalt, 1982). Lastly, this result indicated cognitive engagement to be predicting the lowest in both male and female students, whereby male students' cognitive variance predicted self-handicapping higher (48%) in comparison to female students' cognitive variance (22%), meaning that female students are more willing to go beyond the basic requirements to master the difficult skills than male students.

.The model of nationality status invariance indicates that the responses of national students explains self-handicap more than the responses of international students where 25% variance of student engagement explains self handicapping behavior of local students, while a lower percentage of only 12% of international students' engagement explains self handicapping behavior of international students. This finding is explained by Status characteristic theory of Berger, Cohen, and Zelditch (1996), which states that members of a group form expectations about each other's competence to contribute to group goals based on

their status characteristics. Possibly being away from their home countries the international students engage with their study more than the nationals in order to finish earlier and return to their home countries. In addition, Podolny (1993) explained that individuals expected to contribute more are more highly valued by the group, held in higher esteem. Since local students tend to be more highly valued and esteemed than international students therefore, there is a higher possibility that national students self-handicap more than international students in order to protect expectations for personal competence. Furthermore, Pulford, Johnson and Awaida, (2005) argued that self-handicapping behavior is influenced by cultural differences because the underlying reasons for self-handicapping differed between different countries. .

However, International students' behavior engagement and national students' behavior are almost the same i.e. 69% of behavior engagement of international undergraduates explains self-handicapping while 68% of behavior engagement of nationals' explains their self-handicapping. This is probably due to the same characteristics of young adults no matter which nationality they belong to, this is supported by Jeffrey (2007) who reported that:

One claim made frequently about emerging adults is that they are miserable lot, wracked with anxiety & unhappiness, intimidated to the point of paralysis about the grim prospects for entering the adult world. According to this view, the years from age 18 to 25 are dark and dreary period of life course. Emerging adults are typically confused and glum and overwhelmed by what the world seems to require from them.

Results indicate that emotional engagement of international students explains 68% of self-handicapping while only 54% emotional engagement of national students explains their self-handicapping. Possibly the international students have a lower relationship with lecturers, colleagues, faculty, university due to the adjustment period which they are going through. Some of the students take a longer time to adjust with the new country, new university, new rules and regulations, new lectures, new class-mates, new culture and other issues. These situations lead them into having a low self-esteem which Newman and Wadas (1997) reported that the use of self-handicaps between persons with stable versus unstable self-esteem are much stronger than between persons with generally high versus low self-esteem.

Variance of cognitive engagement of national students 40% has a very small difference with that of international students' which is 38%. The low percentages and the small differences between them might be due to low self-esteem which mostly occurs during the early adjustment period for both international and national students with international student having a higher percentage due to longer period of adjustment than the local students.

Conclusion and Recommendations

In enhancing student engagement and discouraging academic self-handicapping, recommendations shall be given to counselors, psychologists, lecturers, and student counselors in applying structured observation analysis in order to identify individual self-handicappers and deal with them individually by using cognitive behavior therapy. Suggestions shall be given to facilitators of Islamic studies to apply Zimmerman's self-regulated learning skills which consist of goal setting and planning, self-monitoring, self-evaluating, organizing, transforming, rehearsing and memorizing. Lastly, Whole Brain Teaching has been recommended in order to help the low esteemed students.

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