
Teacher Attribute Variables in Infusing Islamic Manners (Adab) in Classroom: Scale Validation

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Abstract

The study attempts to empirically test the validity of the 4-factor structure of teacher attributes in infusing manners (*adab*) in classroom (iMIS). The Teacher Attributes Scale (TAS) was proposed which consisted of four latent variables namely: self-efficacy, values, Islamic work ethics and organizational commitment. The samples of 814 Muslim teachers of public primary schools in six provinces of Southern Thailand were selected by using simple random sampling. The survey instrument was administrated. Principle Components Analysis (PCA) and Confirmatory Factor Analysis (CFA) were applied to arrive at the conclusions. The results of the study supported that the four factor model were generated by the data collected and the scales exhibited acceptable psychometric properties. Implications of the results are discussed.

Keywords : Teacher, Attributes, Infusing, Islamic Manners, Scale Validation

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INTRODUCTION

Islamic manner or *adab* is one of Islamic educational goal. It contains a comprehensive code covering almost every aspects of social behavior, a part of the complete way of life which is Islam (Marwān, 2000). Loss of *adab* causes the '*Muslim dilemma*' that makes confusion and error in knowledge and later on it rises of unqualified leaders in Muslim community (Al-Attas, 1978, 1979). Therefore, in the process of Islamization of knowledge, *adab* as well as Islamic principles, values, and norms are emphasized and to be guided and influenced through the process of education in all aspects including curriculum, co-curricular activities, methods of teaching, relationships between teacher and student as well as the relationship between the school and society (Ali, 1997).

In the Islamic education process, teachers play important roles for training Muslim youths to behave ethically. According to Ibn Miskawayh (Nadia, 1994), in his book *tahdhib al-akhlaq* (Refinement of Character), teacher as a trainer must impart to the young desirable knowledge, moral, customs, and behavior, to prepare them in the manner which makes them the acceptable human model within the Muslim community. Therefore, the training of *adab* has been considered as an important duty for Muslim teachers, since they are the best possible behavior model for their students (Shaykh Abdullah, 2004). However, it has to be worried what teachers can do in this issue especially when they are teaching in a secular educational or Western Educational model system where Islamic values the spiritual dimension are neglected (Ali, 1997; Azis, 2003). Hence, an understanding of how teachers' perceived support variables influence their performance in infusing Islamic manners (*adab*) in classrooms (iMIS) are

motivated towards a positive work ethic within school structure and tasks, will not only has its impact on the performance outcome of the teachers, but will also affect the extent to which the school encourages a positive work ethic of the individual to benefit the organization.

This study attempts to investigate the nature of teachers' attributes in infusing Islamic manners (*adab*) construct. Specifically, the study empirically tested the probability of the 4-factor structure of teacher attributes in iMIS. The study sought to establish the extent which the conceptualized teacher attribute model reproduced data.

TEACHER ATTRIBUTES VARIABLES

This study uses as a framework of the organizational behavior view to understand the influence of individual factors on their ethical behaviors. Based on the organization behavioral view as "our personality shapes our behavior" (Robins and Judge, 2008:13). Robins (2003) suggested that to understand in individual behavior, there are the key psychological contributions to organizational behavior (OB) which are fallen down into the following four concepts: values, attitudes, perception, and learning.

Studies conducted in Thai context revealed some interesting finding on teacher attributes variables. Mohan (2007) studied on the role of person variables leading to job well-being of international school teachers in Bangkok, Thailand. Four personal variables were selected based on the theory of "core self-evaluations" namely self-esteem, self-efficacy, neuroticism and locus of control.

Sekmeti (2007) studied on factors leading to the Royal Award among teachers in Islamic Private Schools in Pattani Province. She found that internal factors such as teachers'

responsibility and their dedication to work have led to such awards.

Thananimith (2007) analyzed the factor of teaching efficiency among 413 science teachers in primary schools under the Office of Pattani Educational Service. His factor analysis revealed the teachers were influenced by several factors of teaching efficiency including relationship between teacher and students, ability of measurement and evolution process, self-development, knowledge of the subject content, ability in managing instructional process and instructional climate, understanding of curriculum and appropriate science teachers' characteristics.

Phuwipirom (1997) researched on trends of elementary education in relation to the Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT) development project using Delphi technique from 20 samples of selected administrators, academic and educational supervisions in Pattani Province. Specifically on the role of teachers, she found that teachers should be able to plan cooperatively with students how to organize learning experiences, liaise with government and private organizations, adopt innovative technology and possess wider vision.

Suri (1993) explored on teacher characteristics of rural development as perceived by 595 Tambon Advisory Committee (TAC) in Pattani Province. His study revealed that the average perception levels of the TACs towards teacher characteristics for rural development in all 6 aspects of attributive task were at a high level in descending order as follows: moral principles and codes of conduct, firm determination of work, human relations, training, guidance and superintendence, physical and mental health, and academic affairs respectively.

Teachers' Self-Efficacy

Teachers' self-efficacy has been studied in the context of educational

research and found to have a positive effect on teachers' attitudes and behavior (Hakverdi, GÜCÜM and Korkmaz, 2007; Rimm-Kaufman and Sawyer, 2004; Mathews et al., 2006). The theory is based on Bandura's self-efficacy: "It requires a strong sense of efficacy to remain task oriented in the face of pressing situational demands and failures that have social repercussions" (Bandura, 1993:120).

Teachers' Values

Values are beliefs of desirable and often define what members should perform achieving to be successful in the organization (Hoy and Miskel, 2008). Rollinson and Broadfield (2002) pointed out that people hold different beliefs and adhere to different value systems and their philosophies may diverge, or their ethical values may lead them in different directions.

Islamic Work Ethic

The concept of the Islamic work ethic is derived from the teachings of Islam. According to Rice (1999), Islam contains its own ethical structure which offers specific guidelines for conducting work. These guidelines relate to the concepts of unity, justice and trusteeship. Ismael (2003) found that the Islamic work ethic correlated with work individualism among Arab teachers in Israel. Besides, Darwish (2001) found that Islamic work ethic mediates the relationship between the organizational commitment and job satisfaction. Nik Mu'tasim, Nordin and Abdullah Sanusi (2006) also found that Islamic work ethic moderates the relationship between the organizational commitment and job satisfaction among employees in Malaysia. Furthermore, Samsoo, Mohamad Sahari and Nik Suryani (2008) discovered that self-efficacy and values towards infusing Islamic manners (*adab*) influence teachers' commitment indirectly via the Islamic work ethic as intervening variables among Thai Muslim teachers.

Organizational Commitment

In Islam, commitment (*ikhlaas*) plays a strong role for inner human drive (Khaliq, 2007). Failing to live up to one's commitment, a sense of shamefulness works in a negative way to keep one way. In organization, commitment is believed to give rise to elements of self-induced satisfaction and motivation that are crucial for performing managerial and non-managerial functions (Omer, 2001).

McShane and Von Glinow (2008) pointed out that commitments is considered as the strongest form of influence tactics compared with resistance and compliant. Whereas, Sergiovanni (2007) pointed out the professional virtue of teachers which is made up of four dimensions of commitments: practice in an exemplary way, practice toward valued social ends, ones' own practice and the practice itself and the ethic of caring. Additionally, in research on using the Islamic work ethic, it has been found to have a direct effect

on organizational commitment (Darwish, 2001; Nik Mu'tasim, Nordin, and Abdullah Sanusi, 2006).

Of the various factors, only four attributes of teachers were included in the present study based on the findings of previous research by Samsoo, Mohamad Sahari and Nik Suryani (2008). According to their findings, there are correlations between teacher self-efficacy, teacher values, Islamic work ethic and organizational commitment regarding the teacher's perceptions of infusing Islamic manners (*adab*) in the classroom among Thai Muslim teachers in Narathiwat province. Therefore, the present study only uses four teacher attributes variables, namely: teacher self-efficacy (SE), teacher' values (VA), Islamic work ethic (ET), and organizational commitment (CO). The present study hypothesizes that "teachers' attributes is explained by the 4-factor model (Self-efficacy, Values, Islamic Work Ethic and Organizational Commitment).

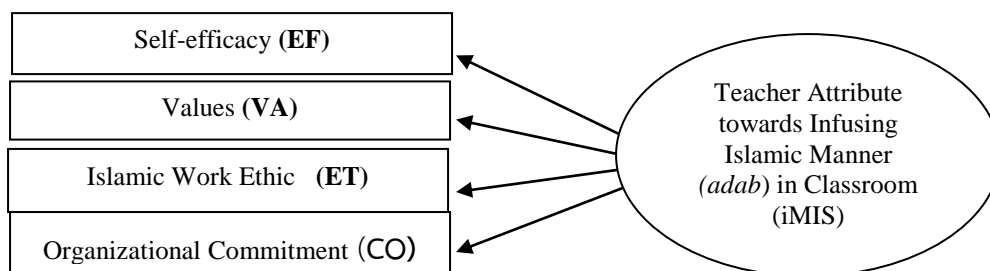


Figure 1: The observed, Manifest Variables and the Latent Variables of Teachers' Attributes

RESEARCH DESIGN

In this study, the population was the primary school teachers under the Office of Educational Service in six provinces in southern Thailand who teach in the schools that generally based on the Western Educational model (secularized education). In particular, they represented Malay-Muslim as the ethnic and religious minority in Thailand both the Muslim-majority provinces, which

comprised Narathiwat, Yala, Pattani, and Satun, and also the Muslim-minority provinces namely Songkhla and Phatthalung. Both permanent and non-permanent teachers were targeted. A simple random sampling was used to select the participants.

INSTRUMENTATIONS

The proposed Teachers' Attributes Scale (TAS) was adapted from Rosnani and Suhailah (2003), Ali (1988),

and Abdulhakam (2006). It consisted of : (i) teachers' Self-efficacy in Infusing Islamic Manners (*adab*), (ii) teachers' value of Islamic manners, (iii) teachers' Islamic work ethic, and (iv) teachers' organizational commitment (See Appendix 1).

DATA ANALYSIS

STEP1: Principal Component Analysis (PCA)

The first test was conducted with 237 Muslim teachers in Educational Region I schools, Narathiwat province. PCA was conducted to construct-validate the factors influencing teachers' perception in iMIS. To find out the number of factors the following rules were used: (1) the Kaiser's rule of 1.0 as the minimum eigenvalues, (2) the scree test, (3) number of items per factor where at least three items should be loaded to any one of the respective factor, and (4) the interpretability of the solutions. The degree of intercorrelation among items justified the application of the factor analysis as well as the Bartlett's test of

sphericity which recorded a Chi square value.

Table 1 shows the correlations among the 16 items supported the use of principal component analysis. Specifically, the Bartlett Sphericity Test yielded statistically significant inter-correlation $\chi^2 (120) = 1435.114$, $p = .001$ with an overall MSA of .82, which exceeded the value of .60. Thus, the data matrix has sufficient correlation to justify the use of the exploratory factor analysis. The principal component analysis yielded a four –factor solution, representing 62.18% of the variance of the respondents' scores on the 16-variable scale. The eigenvalues, ranging from 1.42 to 4.80 (which is greater than 1 as required), satisfied the standards of important factors as prescribed by Hair, Jr. et al. (2006). The solution, extracted positive statistically significant loadings, free from factorial complexity, interpretability and variable-specific factor with four factors loading = 62.18%.

Table 1
Varimax with Kaiser Normalization Rotated of Principal Component Analysis
Factor Matrix (5iterations): TAS (n=237)

Items	Factors	1	2	3	4	Communality
EF1	Self-efficacy		.69			.49
EF2			.81			.68
EF3			.78			.67
EF4			.71			.58
VA5	Values				.70	.61
VA6					.81	.73
VA7					.79	.69
VA8					.52	.32
ET12	Islamic Work Ethic			.73		.57
ET13				.68		.50
ET14				.80		.65
ET15				.63		.45
CO16	Organizational Commitment	.70				.58
CO17		.89				.84
CO18		.86				.79
CO19		.86				.78

Items	Factors	1	2	3	4	Communality
Rotation Eigenvalues		4.80	2.21	1.53	1.42	
% Variance Explained		29.98	13.82	9.53	8.85	
Cumulative Variance Explained		29.98	43.80	53.33	62.18	
Cronbach's Coefficient Alpha		.88	.77	.70	.58	

The first rotated factor reflects on teachers' *organizational commitment*, has significant loadings, ranging between .70 and .89 on the same four items (CO16, CO17, CO18, and CO19) with Alpha Cronbach reliability of .88.

The second rotated factor comprised four items (EF1, EF2, EF3 and EF4), ranging between .69 and .81 and with Alpha Cronbach reliability of .77. This factor can be described as the *teachers' self-efficacy in iMIS*.

The third rotated factor includes three items (ET12, ET13, ET14 and ET15), ranging between .63 and .80, and with Alpha Cronbach reliability of .70. The teachers' scores on this factor reflect their *Islamic work ethic*.

The fourth rotated factor reflects on *teachers' values of iMIS*, has significant loadings, ranging between .52 and .81 on the same four items (VA5, VA6, VA7 and VA8) with Alpha Cronbach reliability of .58.

STEP 2: Confirmatory Factor Analysis (CFA)

The final analysis involved 561 Muslim teachers in public primary schools in six provinces of southern Thailand. The majority of the teachers were more female (128 or 68.4%), than males (59 of 31.6%). Most of them (83.7%) were teaching in Muslim majority provinces: Narathiwat (25%), Yala (21.4%), Pattani (19.8%), and Satun (17.5), while 16.4 % were from Muslim minority provinces: Phatthalung (14.6%), and Songkhla (1.8%).

A total of 508 (90.6%) respondents were Bachelor's degree holders, while 28 (5%) were diploma holders and 22 (3.9%) with the Master

Degree. The respondents represented different specializations where 33.9% of them specialized in Education, Social Sciences 24.2%, Natural Sciences 10.5%, Islamic Sciences 10.3%, Mathematics 7.3%, Computer Sciences 3.2%, and other specialization 10.5%.

The mean age was 36.3 years ($SD = 9.9$), with a range of 22 to 60 years. The average years of teaching experience were 17.8 years ($SD = 4.37$), with a range of 1 to 28 years. Most of the teachers (52.9%) were untrained in iMIS, accept 47.1 % of them.

CFA was conducted using AMOS 16.0, a model fitting program that will determine the four-factor model and also which model of the hypothesized relationship was supported. CFA examines correlation among variables. To evaluate the goodness of fit of the model several commonly used fit indices, such as Discrepancy Divided by Degree of freedom (CMIN/DF), the Comparative Fit Index (CFI), the Tucker-Lewis Index (TLI), and the Root Square Error of Approximation (RMSEA) were used. Arbuckle and Wothke (1995) pointed out that first, the CMIN/df with a value of between 2 and 5 is considered acceptable. Secondly, the threshold values of CFI and TLI range from zero to 1, with values close to one demonstrating a good fit were used. Finally, a value of RMSEA of .08 or less shows a reasonable error of estimation was determined.

The measurement model in Figure 2 was a first order confirmatory factor analysis (CFA) designed to test the multidimensionality of the Teacher Attribute. Specifically, it tested the hypothesis that the multidimensionality construct of the Teacher Attribute Scale composed of Self-efficacy (SE), Values

(VA), Islamic Work Ethic (ET) and Organizational Commitment (CO).

As the evidence, the hypothesized model (Figure2) incorporated the four-inter correlated factors (SE, VA, ET, and CO) with 16 observed variables (EF1, EF2, EF3, EF4, VA5, VA6, VA7, VA8, ET12, ET13, ET14, ET15, CO16, CO17, CO18, and CO19). Each observed variable was hypothesized to load only into one factor. The error associated with each variable (e1 to e16) was postulated to be uncorrelated. These errors or uniqueness included measurement errors and specificity.

Assessment was made to what extent the model fit the sample data. The summaries of four-common factor model CFA results are shown in Figure 2. The p-Value = .001 is lower than the expected limits ($\geq .05$). However, the adjusted Chi-Square statistic, ratio derived by dividing the Chi-square amount by the degree of freedom, suggested the model was a good fit at 3.413. The fit of the four-factor

oblique model was adequate as both TLI and CFI (.923 and .937, respectively) met or exceeded the recommended criterion of .90. The RMSEA was .066, less than .08, which was acceptable, where the smaller the RMSEA value the better. Once the mode was assessed as a whole, then evaluation for the individual parameters or specifically the factor loadings were made.

The feasibility of the individual parameter estimates was examined next. As presented Table 2, the factor loading ranged from 0.554 (ET15) to 0.866 (CO17). All items or observed variables specified to measure a common underlying factor were found to be reasonably and statistically significant ($CR > 1.96$). All factors managed to fulfill the requirement for convergent validity tasted loading of 0.50 and above but not exceeded 1.00. The variances of the error terms were found to be in the range of 0.087 (e15) to 0.520 (e12) which were statistically significant.

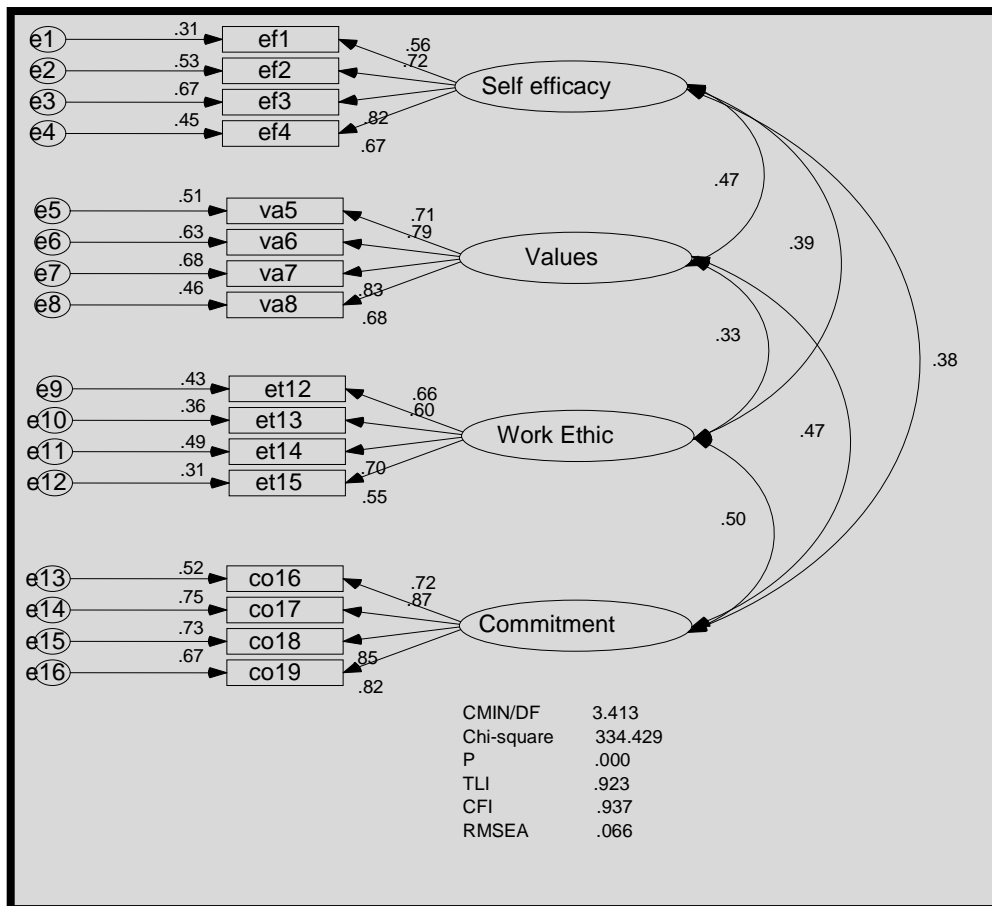


Figure 2 The Generated 4-factor model of TAS (Standardized Estimates)

Based on the squared multiple correlation results, the factor of self-efficacy explained 67.4% of the variance associated with EF3, followed by EF2 (52.5%), EF4 (44.7%) and EF1 (30.9%). The factor of values explained 68.2% of the variance associated with VA7, followed by VA6 (62.6%), VA5 (50.9%) and VA8 (46.2%). Islamic work ethic factor was explained by 49.1% of the variance associated with ET14, followed by ET12 (43.3%), ET13 (36.0%) and ET15 (30.7%). Finally, the organizational commitment factor explained 75.0% of

the variance associated with CO17, followed by CO18 (73.1%), CO19 (67.3%) and CO16 (52.4%). The results have demonstrated that all loading were statistically significant ranking from considerably moderate (30.7%) to good predictors (43.3% and above).

The factor variance were .198 (SE), .129 (VA), .231 (ET), and .202 (CO). All factor variances (SE, VA, ET and CO) were below the recommended 50% or .50 (Hair et al., 1998) indicating than less than of the variances for the specified items were counted for the constructs.

Table 2
Maximum Likelihood Parameter Estimates of the Standardized Factor Loadings,
Standard Error, Critical Ratio and Squared Multiple Correlations for
a 4-Factor Model of TAS

Parameter		Standard Error (S.E)	Critical Ratio (C.R)	SMC
Factor loadings				
EF1	.556	.063	11.064	.309
Ef2	.725	.068	13.817	.525
EF3	.821	.073	15.044	.674
EF4	.668	constrained	constrained	.447
VA5	.713	.080	14.497	.509
VA6	.791	.090	15.304	.626
VA7	.826	.083	16.453	.682
VA8	.680	constrained	constrained	.462
ET12	.658	.113	9.425	.433
ET13	.600	.081	8.529	.360
ET14	.701	.095	11.189	.491
ET15	.554	constrained	constrained	.307
CO16	.724	.050	18.257	.524
CO17	.866	.049	23.128	.750
CO18	.855	.048	23.618	.731
CO19	.820	constrained	constrained	.673
Measurement error variance				
e1	.212	.014	15.074	
e2	.157	.013	12.479	
e3	.116	.013	9.110	
e4	.245	.018	13.772	
e5	.167	.012	13.484	
e6	.145	.012	11.814	
e7	.113	.011	10.391	
e8	.151	.011	14.179	
e9	.340	.028	11.951	
e10	.195	.015	12.994	
e11	.269	.026	10.395	
e12	.520	.038	13.649	
e13	.098	.008	12.717	
e14	.150	.010	14.559	
e15	.087	.008	10.829	
e16	.095	.008	11.468	
Factor variance and correlations				
Self-efficacy	.198	.024	8.159	
Value	.129	.015	8.515	
Work Ethic	.231	.039	5.892	
Commitment	.202	.018	11.425	
Self-efficacy <--> Values	.075	.010	7.380	
Values <--> Work Ethic	.057	.011	5.381	
Work Ethic <--> Commitment	.109	.014	7.498	
Self efficacy <--> Work Ethic	.084	.014	5.905	
Self efficacy <--> Commitment	.077	.011	6.783	
Values <--> Commitment	.075	.009	7.956	

The latent factor correlations
were significant and positively corrected

with $r = .075$ (Self-efficacy <--> Values),
 $r = .057$ (Values <--> Work Ethic), $r =$

.109 (Work Ethic <--> Commitment), $r = .084$ (Self efficacy <--> Work Ethic), $r = .077$ (Self efficacy <--> Commitment), and $r = .075$ (Values <--> Commitment). All the t- values for the obtained covariance were above the critical value of .01 significance (C.R. >1.96). The results in Table 3 reveals that there were no correlation above $r = 0.85$ supporting the discriminant validity upon which the factors were independent and yet moderately correlated. In order to confirm the discriminant validity of the model, standardized residual covariances was examined to detect the significant discrepancy between the four variables.

In summary, the hypothesized measurement model in Figure 2 provides a reasonable explanation of the TAS used in this study. With its four intercorrelated factors and sixteen measured variables, this model supported the hypothesis that the TAS was a multidimensional construct consisting SE, VA, ET, and CO. In general, the these four factors managed to fulfill the construct validity comprising convergent validity (factor loading and variance extracted of 0.5 and above), discriminant validity (correlations among factors of less than 0.85) and acceptable reliability (Cronbach's Alpha of above 0.7).

DISCUSSION

As expected that, the result showed that proposed the teacher attributes in iMIS can be explained by 4 latent factors as described above. There were moderate correlations between 4 constructs ranking from .33 to .50. This finding implies that those teachers who one characters among 4 constructs, they tend to have other characteristics as well. These four factors, to what extend, share a similar concerned, and that is the characteristics of an Islamic teacher such as studied by Samsoo, Mohamad Sahari and Nik Suryani (2008).

According to the findings, all four studied teacher attributes might partially reflect the characteristics of an Islamic teacher since all characteristics are significantly intercorrelated. For example, teachers who have a high self-efficacy in iMIS might also have a high level of iMIS values, Islamic work ethic and organizational commitment. Thus, it may be that these attributes drive the likelihood of teachers' performance in iMIS. This results are consistent with previous finding (Phuwipirom, 1997; Sekmeti,2007; Suri,1993) on the expected roles and actual characteristics of teacher in Southern Thailand especially among Muslims, which pointed out that the effective teachers have shared certain characteristics as internal factors that lead to succeed in work such as responsibility and their dedication to work, ethic code. Furthermore, the results also replicate the ethical model of Islamic studies primary school teachers in Narathiwat province studied by Mayusoh (2008).

Therefore, this study may suggest that teachers who have a certain characteristics in iMIS may also hold particular personality traits, which may make it more or less likely for them to engage in iMIS.

IMPLICATIONS

The proposed instruments used namely Teacher Attribute Scale (TAS) was adapted from several sources and the results of the analysis indicated that the scales exhibit acceptable psychometric properties. Therefore, the scales are useful for those who are interested in studying these construct' relationship.

RECOMMENDATIONS

This study paves the way to conduct future research to find out more on the possible attributes that may make more or less likely for teacher to engage in iMIS especially the Islamic teacher attribute as

mu'allim and *murrabi* such as the intellectual characteristics of Muslim personality (Fawzia, 2008) and the *ummatic* personality (Nooraini, 2008).

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Appendix 1

Constructs and Measurement-items of The Teacher Attributes Scale (TAS)

Pneumonic	Constructs and Measurement-items	Sources
	Construct 1 : Teachers' Self-efficacy (4items)	Rosnani and Suhailah (2003)
EF1	1. I have adequate skills to develop students' Islamic manners such as giving <i>salam</i> , cleanliness, table manners.	
EF2	2. I have adequate knowledge about infusing Islamic manners.	
EF3	3. I feel competent in infusing my students how to behave islamically.	
EF4	4. Through my teaching, I have attained the objectives of developing my students' Islamic manners as intended.	
	Construct 2 : Teachers' Value (4items)	Rosnani and Suhailah (2003)
VA5	1. Islamic manners are useful for students' success in activities outside of school.	
VA6	2. Islamic manners are important to help improve students' achievement.	
VA7	3. Islamic manners are relevant for work success.	
VA8	4. Developing students' manners based on Islamic value helps to improve their moral reasoning.	
	Construct 3 : Islamic Work Ethic (7items)	Ali (1988)
ET9	1. More leisure is not good for society.	
ET10	2. Human relations in organizations should be emphasized and encouraged.	
ET11	3. Creative work is a source of happiness and accomplishment.	
ET12	4. Any man who works is more likely to get ahead in life.	
ET13	5. Work gives one the chance to be independent.	
ET14	6. A successful man is the one who meets deadlines at work.	
ET15	7. One should constantly work hard to meet responsibilities.	
	Construct 4 : Organizational Commitment (4items)	Abdulhakam (2006)
CO16	1. I am proud to tell others that I am part of this school.	
CO17	2. I am extremely glad to choose this school over others.	
CO18	3. This school has a great deal of personal meaning for me.	
CO19	4. I feel a sense of pride in working for this school.	