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Author(s)

Yusuf Suleiman¹

Zahyah Bt Hanafi²

Muhajir Bin Taslikhan³

Affiliations

¹Yusuf Suleiman School of Education and Modern Languages, Universiti Utara, Malaysia,

Malaysia,yusufsuleiman85@gmail.com

²Faculty of Education, Help University, Malaysia

³School of Education and Modern Languages, Universiti Utara, Malaysia

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Structural Equation Modelling of Relationship between Teachers' Capacity Building and Students' Academic Performance in Secondary Schools in Kwara State, Nigeria

Yusuf Suleiman¹
Zahyah Bt Hanafi²
Muhajir Bin Taslikhan³

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Abstract

Unarguably, students' academic success rests on the learning experiences derived from their teachers via teaching and learning processes in the classroom. Teachers are an important tool for implementing the school programs to achieve school success. The human capital development is regarded as a way of building the capacity of teachers in the school system, thereby strengthening their knowledge and skills. In the light of this, this study examined the impact of teachers' capacity building on academic performance. Methodologically, this study adopts a correlation survey method to establish the links between constructs of the study. Stratified and quota sampling techniques were used to select 183 respondents for the study. Questionnaire method is used for the study. Students' results in five subjects (Mathematics, English, Biology, and Economics) were collected to measure students' academic performance. The data collected were analyzed using Smart PLS software to model the nexus among the constructs. Findings revealed that capacity building are provided moderately as perceived by the teachers. Also, results established that teachers who went through capacity building programs are equipped with modern techniques of teaching, thereby positively influence students' academic achievement. In conclusion, this study concluded that training

¹Yusuf Suleiman School of Education and Modern Languages, Universiti Utara Malaysia, Malaysia, yusufsuleiman85@gmail.com

² Faculty of Education, HELP University, Malaysia

³ School of Education and Modern Languages, Universiti Utara Malaysia

and re-training of teachers is an essential factor for determining students' success. It was recommended that capacity building should be constantly provided for teachers with a view to boost their morale and makes them efficient and effective. Improved budgetary allocations should be made by government for teachers to attend various capacity building programs. Private and individuals should be involved in providing capacity building for teachers. Lastly, no teacher should be left out in capacity building programs as teachers remain the bedrock to students' success.

Keywords: Capacity Building, Workshop, Seminar, Teachers, Academic Performance

1. Introduction

There is a notion that teachers in Nigerian secondary schools are not discharging their teaching and non-teaching tasks efficiently. This is shown on the poor quality of students produced at secondary level of education. National Policy on Education (2004) stipulates that one of the goals of this level of education is the preparation for higher education. This goal cannot be said to have been commendably realized because the level of students who sit for matriculation exams and up failing mostly. This indicates that they are not properly prepared for this purpose which confirms that the teachers have not been able to discharge their obligation creditably. Possibly the teachers' failure to achieve these goals might be due to poor nature of capacity building they are exposed to. Capacity building practices are indispensable ingredients in the process of changing individuals and organizations from where they are to where they should be and function.

Understanding the concept of capacity building has turned out to be a buzz phrase in educational organization. It's a topic of discourse both in developing and developed countries globally and despite its universal acceptance and wide usage, the concept has been misunderstood virtually by all stakeholders in education (Ebgo, 2011; Young, 2002).

In view of this, there is a need to define capacity building to project a clear picture of what it entails in the field of education. According to (Stocklin, 2011) teachers' capacity building can be defined as the systematic process which involves subjecting teachers to intellectual activities purposely designed and meant to develop and update their knowledge with a view to translate such knowledge to the classroom activities which will have a positive impact on their students. This view is supported by (Nakpodia, 2008) who is of the view that teacher capacity building, also known as a teacher development program, is a continuous program aimed at updating the skills and knowledge of the teachers in their chosen field. Capacity building in education system is not something that can be neglected by the stakeholders; rather, it is something that should be done to promote the teaching profession.

Egbo (2011) describes teachers' capacity building in education as a diverse intensive activity outside the classroom, which teachers go through to refresh their knowledge, skills and attitude to meet up with the emerging challenges in educational system. Teacher capacity building means garnering of more experiences for professional growth. The experiences enable them to be active and work towards the achievement of the school goals. Similarly, Giwa (2012), Hallinger (2014) and Panigrahi (2012) see teachers' capacity building as the process whereby the individual teachers undergo training and re-training such as seminar, conference, workshop and lectures for the purpose of making them to be more confident, efficient and effective in the school system.

Alabi (2000) opines that teachers' capacity building connotes the needs of the teachers to improve their performance in classroom activities. She is of the view that capacity building aimed at personal and professional training of individual teachers in the school system. Specifically, the capacity building of teachers should be geared towards changes in the classrooms of the school teachers and should be a reflection of what they have gained in terms of new skills, knowledge and positive attitudinal change (Tam, 2014), the new knowledge of the teachers should also come to reflect on students improved performance in the classrooms (Giwa, 2012; Stocklin, 2011). The capacity building of the teachers

brings positive relationship between the teachers and the students, thus this ensures the efficiency and effectiveness on part of the teachers in the school (Coffin, 2008; Selemani, 2013). The quality of education depends on the type of teachers who are teaching and this requires training and re-training of teachers for the growth and development of the education system (Peter, 2011; Rahman, 2011).

Equally important, capacity building can be seen as an enhancement program which is purposely designed to upgrade the skills, knowledge and overall turnaround of the teachers in school, which will in turn, contributes positively to the teaching of students in classroom (Arinde, 2010; O'Brien, 2013). Salami (1999) views capacity building as a planned activity designed in which teachers undergo with the aim of refining them with a view to be competent and proactive in teaching. It allows teachers to acquire unique disposition, values, skills, norms, attitude, knowledge and ethic in order to prepare them for teaching challenges. It also means a kind of pre-service as well as in-service programs designed for teachers in order for them to be fully equipped for classroom activities.

Hence, it can be rightly said that the quality of professional development teachers' are open to, is a function of how rich capacity building practices they are exposed to. Teachers' profession development does not exist in a vacuum. Capacity building practices seek to enrich and undertaken in such a manner that they bring out the best out of a teacher and also add to the attainment of the goals of secondary education. Therefore, any blame allotted on the teacher not leading up to the expectation should be first channeled to the nature of capacity building practices they are exposed to. Teachers are the main instrument in educating the future generation (children) who will in turn become the national leaders of tomorrow. Teachers at any level are a significant tool for the national development. It is against the background that the study intends to find out the impact of teachers' capacity building on students' academic performance in Kwara State secondary schools, Nigeria.

Research questions of this study are

- What is the perception of teachers on capacity building and students' academic performance?
- Is there any relationship between teachers' participation in workshop and students' academic performance?
- Is there any relationship between teachers' participation in seminar and students' academic performance?

The main research objectives are to know the perception of teachers on seminar, workshop and academic achievement, to investigate whether teachers' participation in seminar influence students' academic performance, to know the relationship between teachers' participation in workshop and students' academic performance.

2. Literature Review

Past studies have been conducted on teachers' capacity building and academic performance in school. Specifically, they studied the variable as a uni-dimension which is seen as the correlation of students' academic performance in schools though some of the studies conducted in the past found inconsistent results in their various studies. For instance, Jacob (2004) in their study, worked on the relationship between teacher training and academic achievement in schools in Chicago, USA. Experimental design adopted for the study, the outcome of the findings found low significant relationship between teachers that had undergone training with academic performance of students in secondary schools. The researchers concluded that there was a need for intensive teacher training to enable them to impart positively on students they are teaching. They recommend that future studies should be conducted on teachers' training and students' academic performance.

Harris (2009) conducted study on teachers' training and academic performance in school. The outcome of the study found a significant (high) relationship between teachers that are trained and re-trained with academic performance.

Similarly, Yoon (2007) based their work on the relationship between professional developments of teachers as a nexus of students' achievement in schools. Three core subjects (mathematics, English language and science) were used to measure the academic performance of students. The findings of the study showed a significant relationship (high) between teachers' professional development and academic performance. The researchers are of the view that, teachers with adequate training would definitely improve the academic performance of their students. Future studies were recommended on the relationship between the two variables used for the study.

Pelton (2013) in his own study conducted an investigation onto the relationship between teachers' capacity building and academic achievement. His study showed a significant (high) relationship between teachers with training programs and students' academic performance. He posits that training of school teachers improves their capability in the classroom. He went further that capacity building programs organized for teachers enhanced their professionalism and makes them better in their chosen work. Further studies were suggested for future researchers.

Furthermore, Joyce (2002) explored the relationship between teachers' capacity building and academic performance. The findings of their study confirmed the existence of relationship between building capacity of teachers and academic performance. They went further that teacher capacity training does not only play a big role in the lives of teachers alone, it also has a positive impact on the academic performance of students. Similarly, Harris (2009) researched on the relationship between teacher capacity building and academic performance in Texas school. The instrument employed a questionnaire to elicit data from the respondents from the sampled schools. The outcome of the findings revealed positive (high) relationship between the two variables. The study confirmed that teachers with more professional training performed better and had significant impact on academic performance of the students they taught in the school.

In the same way, Wheelan (2005) worked on the relationship between teacher capacity building in group and students' academic performance in schools. Questionnaires were adopted to elicit information from the respondents. Results of students in Mathematics, English language and Science were used to measure the academic performance. The findings of the study revealed that capacity building in the form of group discussions improved the capacity of teachers as well as positively influenced the academic performance of students. They recommended that further research should be carried out on teachers' group discussion to see whether or not it will have a significant impact on students' academic performance.

Pradere (2007) in his own work explored the correlation between effective teacher training and students' academic performance. Mixed method techniques were used for the study. Instruments used for the study are the interview and questionnaire. T-test and analysis of variance were used to analyze the data collected from the respondents. The researcher used three subjects namely, Mathematics, Science and Reading to measure the academic performance. It was concluded that teachers with rigorous training tends to be effective and contribute positively to the academic performance of students. Koellner (2014) and Jacobs (2004) investigated teachers' workshop on mathematics and its impact on academic performance of students. Their study used an adaptive model for mathematics to teach the teachers. The researchers used the results of students who were under the teachers who received workshop training on mathematics. Their findings revealed positive (high) relationship between the two variables (independent and dependent variables). They posits that teachers' workshop on mathematics would improve the teaching skills of the teachers. Thus, it will have a positive impact on academic performance of students they are teaching. Teachers' workshops should be a continuous program for the development of the teachers in schools. They recommended studies for future purposes.

Avery (2001) also studied on the relationship between teachers' capacity building and school achievement. Their study

showed a significant (high) relationship between teachers' training and school achievement. They asserted that teachers' capacity is a correlation of school of achievement. They went further that seminars can be used for teacher training to improve their teaching knowledge and skills. They are of the view that regular training of teachers via seminars would ginger the teachers to perform well in schools. For school teachers to be productive, he/she needs training. They stressed the importance of the seminar to be an antidote to the problem of teachers in secondary schools.

Future studies were recommended on teachers' capacity building and academic performance. They worked on the relationship between teachers' capacity building and academic achievement. The study explored the training of teacher capacity building by using a seminar to prepare teachers for them to be confident and productive in the school system. The outcome of their research found that there is a significant (high) relationship between capacity building and academic performance. They averred that teacher capacity building proves to be the method of renewing teachers' confidence so as to improve their students' academic performance in schools. They are of the view that coming together of teachers to critically discuss a particular topic or subject tends to make them to be more confident in teaching. Participation of teachers in plethora of trainings is a continuous process which all stakeholders need to be taken seriously in the education system. The study recommended that future studies should be targeted on other aspect of teachers' capacity building.

Similarly, Swinton (2008) investigated the relationship between teacher capacity building (workshop) and students' academic performance. The targeted population for the study comprised of schools in Georgia, United State of America. The outcome of their findings showed the existence of significant (high) relationship between teacher workshop training and academic performance. They concluded that training of teachers has a correlation with academic performance of students. They went further that workshop programs should be provided for all the teachers irrespective of their status so as for them to be acquainted with the new ideas and innovations in education. Efforts should be

made to research in the future on the relationship between teacher capacity building and academic performance. Likewise, Alabi (2000) in her research conducted on teachers' development programs in secondary schools in Kwara State, Nigeria. She posited that professional development of teachers makes them to be aware of their responsibilities and it increases their job performance in schools. This will change the status in the school and in the society. She furthered that prompt evaluation of teacher development program should be carried out to ensure the type of training that schools are providing for the teachers.

In view of the foregoing, therefore, it can be deduced that most studies assessed teachers' capacity as a uni-dimensional variable even though teachers' capacity building can be measured by using workshop, training, conference and seminar. Literature has shown that there is less focus in using the aforesaid components to measure the capacity building. Thus, this study intends to examine whether or not the teachers who had undergone seminar and workshop perform better in the classroom. Also, there is less study on perceived teachers' capacity building in the school. Lastly, this study intends to extend the existing literature by investigating the impact of teachers' capacity building and on students' academic performance in secondary schools, Kwara State, Nigeria.

2.1. Nature and Purpose of Teachers' Capacity Building

Teacher capacity building is recognized universally in the education system to be a way of strengthening the knowledge and skills of the teachers. This is enshrined in the National Policy on Education (Federal Republic of Nigeria, 2004). According to Ogunrin (2011) and Rahman (2011), stakeholders in education must be conscious of development of teachers in school. The purpose of education is to eradicate illiteracy and this purpose must be in relation with the teacher capacity building to achieve the formal objectives in which it was established to achieve. O'Brien (2013) argues that capacity building for teachers should be about meeting the needs of the students, imparting the knowledge they have acquired to bear on them. Capacity building should be about

to know what transpired between teachers and students in classrooms.

Still, promoting teacher development enhances the thinking of teachers which is synonymous with their classroom teaching performance. It makes them to be versed and creative when dealing with students (Finger, 2015; Hallinger, 2014) posits that refreshing the knowledge of school teachers through various development programs is key to the development of education. It makes the teachers to be vibrant and composed when teaching students. However, Salami (1999) outlined the following to be the purpose of teacher capacity building in education. Specifically, in the Nigerian context, these purposes are enshrined in the National Policy on Education. They are as follows:

- To build school teachers that are well motivated for classroom activities
- To ensure that teachers are well equipped with modern skills for them to be efficient and effective
- To produce teachers with professional and intellectual background which will assist them in their teaching task
- Ensuring that teachers are fit into all social life of the society they find themselves
- Enhancement of teachers' dedication to teaching profession.

2.2. Need For Teachers' Capacity Building in School

The human development of the human being often leads to the positive result based on what he/she has learned. Building the capacity of the teachers in secondary schools is akin to the development of the students in the school. According to Mutshekwane (2014), opined that concerning the question of why there is a need for teacher capacity building in the school system. He submits that most of the teachers face a multitude of problems due to the changes in educational curriculum. The pre-service training of teachers does not guarantee the teacher competence when working as a teacher in school. He/she needs to be informed of the trends in curriculum and the need to align with the trends.

Producing good students is central to the competence of the teacher in the classroom (Asare, 2011), all teachers should be given recognition in order for them to be proactive and know that their sacrosanct input plays a vital role in nurturing their students (McFarlane, 2011).

Tam (2014) opines that teaching in school is not only pouring down the content of the curriculum alone, it depends on how efficient and effective the teacher himself. Kuyini (2011) concurred that it is based on how teacher leads and guides his students in the classroom; this notion can only be achieved if the teachers are updated. Mutshekwane (2014) and Nakpodia (2008) averred that teachers are always responsible for the implementation of curriculum in education. Teacher capacity building should be provided purposely to meet the child's need in the classrooms. It should be what is happening in the classroom, what are the students doing and what are the contributions of teachers to the students in the class.

When there is teacher capacity building, it has a plethora of benefits ranging from the benefits to the teacher himself, benefit to the school that made provision for capacity building as well as the students who benefit from the knowledge of their teachers in the classroom (Delaney, 2002). For the effectiveness of teacher capacity building in school, it must be in tandem with the needs of the individual and relevant schools. For the practical purposes of capacity building, it develops the professional competence and promotes excellence in education system (O'Brien, 2013). According to Egbo (2011), there is a general believe that teachers in primary and secondary schools in Nigeria are not well equipped in terms of capacity building. Lack of capacity building for school teachers is seen as one of the major factors contributing to the poor academic performance as evident in the results released annually by the West African Examinations Council (WAEC) and National Examination Council (NECO). Another need for teachers' capacity building in the education system is to meet up with contemporary countries in the 21st centuries in the area of education in order for the Nigerian government to achieve education for all by the year 20:20; teacher capacity building must

be propagated by the government to achieve the dream (Egbo, 2009). In support of the need for teacher capacity building in school,

According to Salami (1999), opined that the need for teacher capacity building is for them to be knowledgeable. If they undergo a series of training and re-training programs, it makes them to be a good pedagogue. Therefore, they should be able to perform the following:

- To translate what they have learned to bear in the lives of the students they teach
- To be ready for learning at all time, since learning is not static
- To be able to solve the students' problems academically, emotionally and physically
- To be capable of assisting the students to learn interrelationship and relationship learning patterns
- To be in the best position to assist their students in critical thinking to adapt systematic ways of solving the problems they encounter.

2.3. Dimensions of Teachers' Capacity Building

Teachers' capacity building as explained previously, has to do with development of teachers in order for them to be efficient and effective in the school system. The dimension for measuring teacher capacity building in the education system is In-service training (workshop, seminar, self-reading, conference and field-trip). This is very important for the actualization of teachers' effectiveness in school (Alabi, 2000; Albright, 2006; Egbo, 2009; Fareo, 2013; Iyamu, 2005; O'Brien, 2013 and Rahman, 2011). According to Baker-Tate (2010) and Burke (2009), the in-service training is the way of improving the skills and knowledge of the teachers in the education system. This in-service training is the one in vogue for the development of the teachers. The seminar is one of the dimensions of teacher capacity building which can be used to upgrade the skills and knowledge in order to have an impact in classroom activities. According to Pelton (2013), the seminar can

be defined as a group of persons coming together for the purpose of discussing and learning of exact methods and topics.

Nelson (2014) in his own definition sees seminar as a form of intellectual instruction either at an academic institution or offered by a commercial or professional organization. He opined that it is a course or subject for advanced graduates. Rahman (2011) asserts that the seminar program consists of a group of people who are meeting to discuss on certain subject in which all members of the group are expected to participate actively. The organization seminar for school teachers is to sensitize and familiarize them with the teaching skills to help them to adapt to the dynamic nature of the educational system. They were of the view that, school teachers must not see themselves as aware of all the things about teaching; there is a need for them to be exposed to the seminar program as a way of developing their capacity for them to cope with the plethora of realities in education.

2.4. Steps Involved In Teachers' Capacity Building in School

The teacher training policy seems to be the most popular policy that interests the teachers to perform better in classrooms. Motivating teachers in education system assist them to put in their best to achieve the educational goals and objectives. It allows the teachers to be well informed and creative when they are exposed to numerous developmental programs.

According to Alabi (2000) and Matachi (2006), teachers' capacity building in education system involves a systematic approach, this approach will show clearly what, when and how capacity building should be provided for teachers in school. They designed the steps involved in teacher capacity building in the education system. The steps involved in capacity building are as follows:

- *The goals of the school system* – The major goal of the school system is to impart knowledge and skills in students. It entails producing students that are well refined in both learning and character.

- *Assessment of Needs:* This has to do with knowing the areas in which teachers need for developmental programs. It also means that compiling the needs of the teachers, whether it is related to the school goals as mentioned earlier on.
- *Teachers' Development Objectives:* This encompasses the objectives of the teachers in the school system. Their objectives should be in tandem with the needs of the school. The needs of the school will continue to change from time to time. The objectives of teacher capacity building should be closely connected with the needs of the school.
- *Program Design:* This has to do with the variety of capacity development programs which are available for the teachers to upgrade their knowledge and skills. The programs are: conference, seminar, workshop, self-reading, field-trip, lectures, demonstration etc.
- *Program Implementation:* This entails implementing the designed programs by providing funding to finance teachers on various programs. The teachers are expected to be provided grants to pursue their programs for the upgrading of their knowledge.
- *Program Evaluation:* After the implementation of the dimension of the capacity building programs, there is a need to evaluate the program's to know whether the capacity building program's objectives have been achieved or not. The evaluation of the program is important to assist in future program design.

2.5. Teachers' Capacity Building: The Reality in Nigerian Context

Eradication of illiteracy in the society is a huge task that is beyond mere provision of educational facilities and curriculum. The collateral intervention should include teachers who are to ensure the practical implementation of the school programs. The success of school facilities solely rests on the nature of teachers who are recruited to the school. The school facilities and teachers should go

together for the betterment of the education system (Egbo , 2011). Regrettably, teachers' capacity building is extremely bad compared to what is obtainable in developed countries where development of teachers is paramount to their stakeholders. Nigerian teachers are the most de-motivated as well as the most traumatized teachers on earth. These buildings cut across all levels of education; primary, secondary and tertiary institutions. Teachers are de-motivated right from the day they were recruited till when they retire after putting in 30 years active service to their father's land. After retiring from service, their suffering continues as they will have to struggle to get their pensions and entitlements.

Sadly, the current scenario in the Nigerian education system is that the attention of training and re-training of teachers is majorly focused on tertiary institutions; less is given to secondary school teachers. Even the capacity building at higher institutions is based on nepotism, favoritism; bureaucratic bottlenecks as well as unholy politics have consumed the whole idea. Also, capacity building at secondary level is not enough for the teeming teachers who are ever ready to be educationally empowered. Teachers in secondary schools are more than the provision made for capacity building especially in public schools (Egbo, 2009; Egbo, 2011).

3. Conceptual Framework

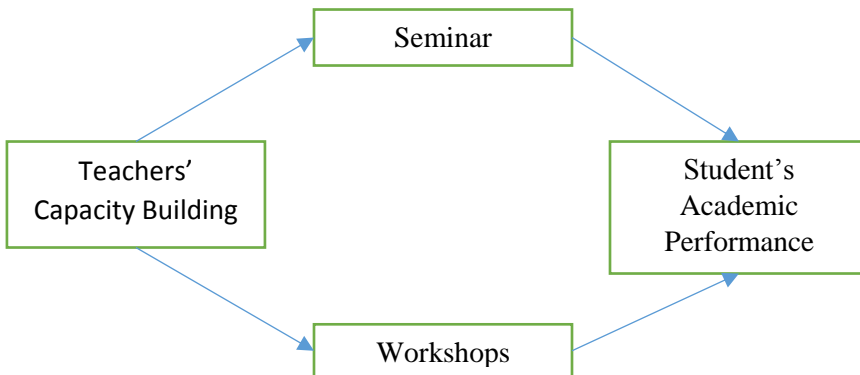


Figure 1: Conceptual Framework

3.1. Underpinning Theory: Change Theory

Change theory was postulated by John Meyer and colleagues in 1970. This theory is on the need that the more the school desires change, there is a need to take into consideration teachers' development programs for them to adapt to the change the school or organization wants. Change theory is one of the theories used in explaining the need for reform in the education system. This theory assumes that change is inevitable in the education system. The assumption is that, if teachers are trained frequently, the likelihood of those teachers trained teachers performing more than before in the classroom is high (Connell, 1995). Change theory, which is also known as change knowledge, is typically based on providing the strengths rather than problems for teachers to have expected change. Treating teachers with respect, teachers' empowerment as well as providing continuous assistance or support would minimize the possibility of having negative effects of educational change.

4. Methodology

4.1. Research Design/Population

This study adopts a correlation survey method to establish the link between constructs of the study. The population for the study consists of all secondary school teachers in Ilorin West Local Government Area of Kwara State, Nigeria. Stratified simple random sampling techniques were used to select 361 out of 6,237 teachers for the study as suggested by Krejcie and Morgan (1970) sampling table.

4.2. Instrument

The questionnaire used for the study was adapted from the previous studies as embedded in the literature review. Two questionnaires titled: "Teachers' Capacity Building" (TCB) were used for the study. Also, students' results in five subjects (Mathematics, English languages, Biology, Economics and Geography) were obtained from the selected schools to measure their academic performance. The teachers' capacity building

questionnaire was specifically used to elicit information from the teachers on capacity building programs provided. Also, the results of the students were used to measure the academic performance. Before the administering of the questionnaire, permission was sought from the school principal and an explanation was given on the need to conduct this research.

The content validity encompasses the face validation of the items so as to ensure that they measure what they are supposed to measure (Creswell, 2007). Simply put, *validity* is defined as the extent to which a concept is accurately measured in a quantitative study. To ensure the validity of the questionnaire, we seek the assistance of some experts in the field of the study. The experts were drawn from School of Education and Modern Languages, Universiti Utara Malaysia, Malaysia.

According to Creswell (2013), reliability can be defined as the consistency of measurement, or the degree to which an instrument measures the same way each time it is used under the same condition with the same subjects. In a nutshell, reliability is the repeatability of measurement. In order to ensure reliability of the study, a pilot study was conducted to ascertain whether the instrument adapted for the study is good or not as suggested by the scholars. We used 70 teachers in one of the secondary schools in the state.

The pilot data was analyzed via Smart PLS (SEM) software. The software was used to ascertain the average variance extracted (AVE), convergent validity, discriminant validity and factor loadings of the constructs so as to ensure that the study can be useful for the main data analysis. After that, the main data collected were analyzed using two softwares, namely Statistical Package for Social Sciences (SPSS) and Smart PLS (Version 2) softwares were used to model the nexus among the constructs.

5. Findings and Discussion

In this study, the descriptive statistics of the latent constructs were explained in the form of mean and standard deviation for a better

understanding of the descriptive analysis of the study phenomenon. In order to achieve this, Statistical Package for Social Sciences (SPSS) was used to determine the mean and standard deviation of the constructs. According to Sassenberg, Matschke and Scholl (2011), the psychometric properties of the study's constructs were measured via a four-point Likert scale (1-4) which was based on strongly disagree to strongly agree. Also, all the items embedded in the constructs were grouped mainly into three categories. The three categories go thus: low, moderate and high respectively. Specifically, a score that is less than 2 (e.g. 3/3+ lowest number 1s considered as a low score), a score which has 3 values (e.g. highest value 4-3/30) is taken as high, while the scores between low and high are considered as moderate .

Table 1 below shows the descriptive statistics of the latent constructs of the study.

Table 1 : Descriptive Statistics of the Latent Constructs

Latent Constructs	Mean	Standard Deviation
Seminar	3.056	0.319
Workshop	2.345	0.321
Academic Performance	3.178	0.784

The table displayed above explains the mean and standard of the constructs which ranged from 2.345 to 3.056 while the standard deviation range from 0.384 to 0.985. Meanwhile, in line with the first research question of the study, this is based on teachers' perception of seminar, workshop and students' academic performance in schools. Particularly, the analysis revealed that the mean and standard deviation for seminar are Mean=3.056, Standard Deviation=0.319. This means that teachers have a high level perception of seminar in the school. For teachers' perception in workshop (Mean=2.345; Standard Deviation=0.321), it shows that the teachers have a moderate perception on the level workshop provided for them in the school. For academic per, teachers perceived it as high (Mean=2.793, Standard Deviation=0.099), which is good for the development of the school. The charts below show the perception of teachers on seminar, workshop and academic performance.

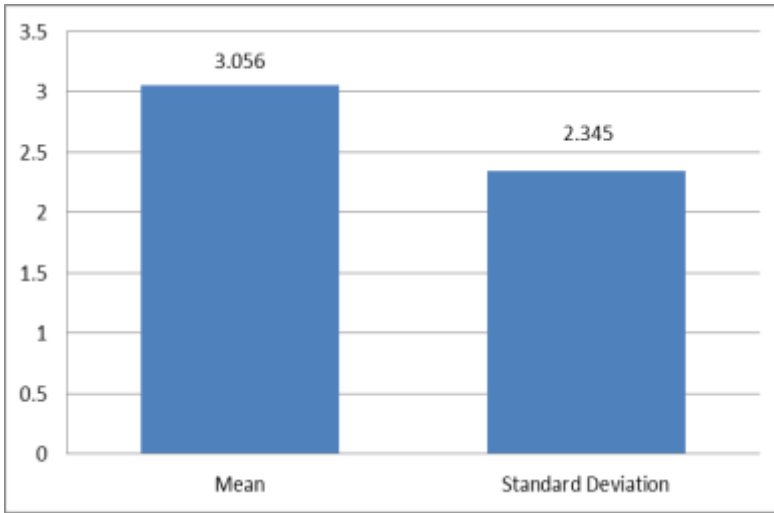


Figure 2: Teachers' Perception on Seminar

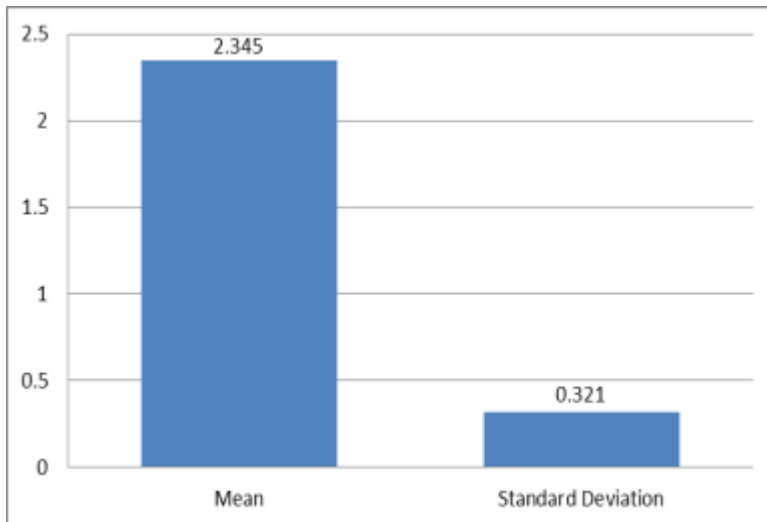


Figure 3: Teachers' Perception on Workshop

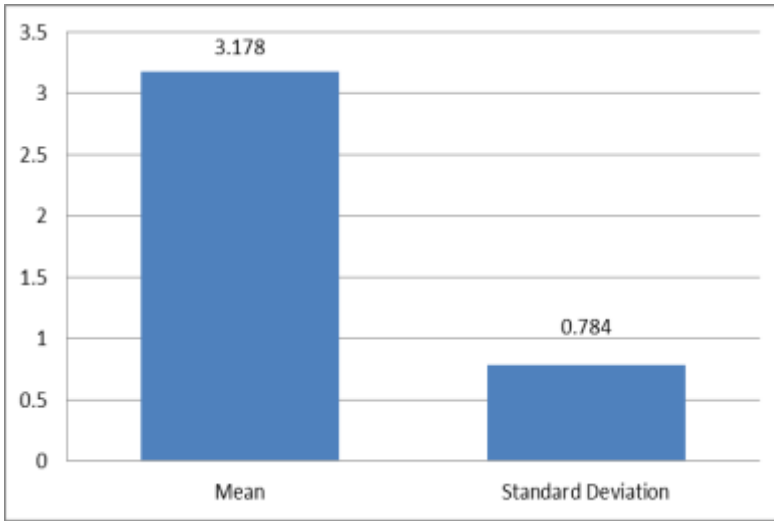


Figure 4: Teachers' perception on students' academic performance

5.1. Assessment of PLS-SEM Path Model Results

It is essential to make reference to a recent study carried out by Henseler and Sarstedt (Henseler J., 2013) who opined that goodness-of-fit (GoF) index is not appropriate for model validation in research (Hallinger, 2014). For example, using PLS with simulated data, the researcher explained that goodness-of-fit index is not good enough because it cannot explain the different valid models from invalid models (Hair, 2014). In the light of the foregoing about the inappropriateness of PLS model validation, this study thus employed a two-step process to analyze and report the results of PLS, as recommended by Henseler (2009). This adopted process consists of (i) the assessment of a measurement model, and (ii) the assessment of a structural model.

5.2. Assessment of Measurement Model

An assessment of a measurement has to do with establishing the individual item reliability, internal consistency reliability, content validity, convergent validity and discriminant validity as suggested

by scholars in research (Hair J. F, 2014). The figure below shows the measurement of the study.

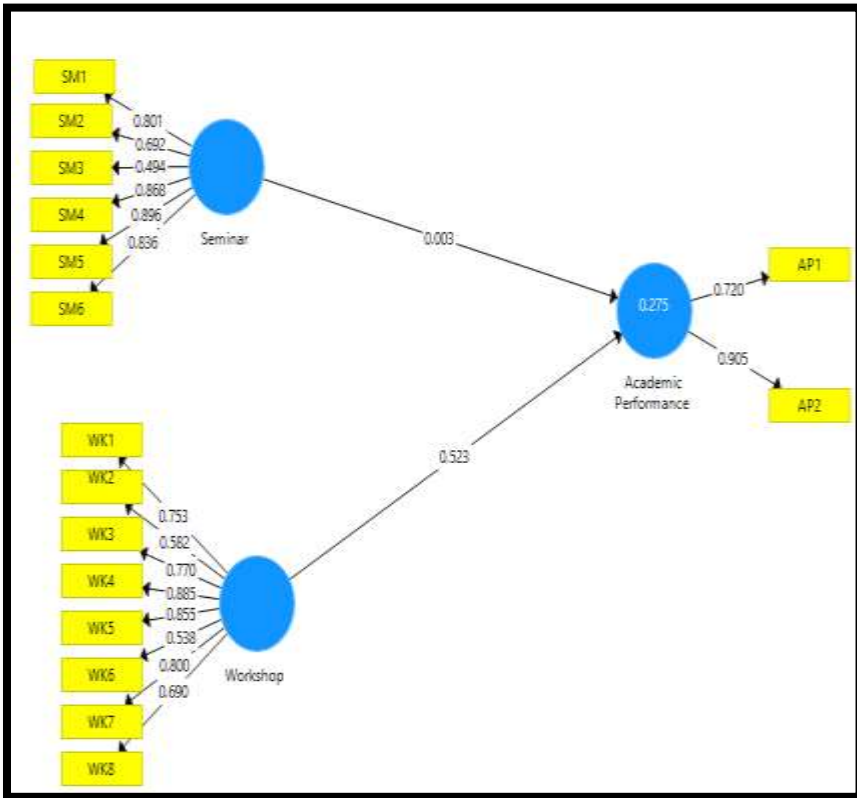


Figure 5: Measurement Model

5.3. Individual Item Reliability

In this present study, we assessed individual item reliability by examining the outside loadings of each construct's measure (Hair, 2012). Following the rule of thumb for having items with loadings, with minimum of 0.40, it was revealed that out of 21 items, 5 items were deleted and the reason is that they had loadings below the threshold of 0.40. Therefore, in the model, only 16 items were taken as they had loadings between 0.494 and 0.905.

5.4. Internal Consistency Reliability

Internal consistency reliability can be described as the extent to which all the items on a (sub) scale are measuring the same measure or concept (Bijttebier, 2000). Composite reliability coefficient and Cronbach's alpha coefficient are the most universally used estimators of the internal consistency reliability of an organizational research. In this study, composite reliability coefficient was chosen instead of Cronbach's alpha to ascertain the internal consistency reliability of the adapted instrument. Composite reliability coefficient runs a much less biased estimate of reliability than Cronbach's alpha coefficient simply because the later accepts all items adding contribution similarly to its construct without considering the actual contribution of individual loadings (Barclayet et al, 1995).

Another reason for choosing composite reliability is that, Cronbach's alpha may over estimate or under-estimate the scale reliability. Composite reliability assumes that indicators have different loadings and can be understood in the same way as Cronbach's. Though, the explanation of internal consistency reliability by using composite reliability coefficient is centered on the rule of thumb as suggested by Hair (2011), who recommend that the composite reliability coefficient should load for at least 0.70 or more. The composite reliability coefficient of each latent constructs in this study ranging from 0.799 to 0.906, with each above the minimum acceptable level of 0.70, signifying adequate internal consistency reliability of the measures used in this study.

5.5. Convergent Validity

Convergent validity means the extent or degree to which items really represent the intended construct and definitely correlate with other measures of the same construct. We assessed convergent validity by examining the Average Variance Extracted (AVE) of each of the latent construct, as posited by Fornell (1981). To achieve this, Chin (1998) mentions that the AVE of each construct should load at 0.50 or more. Following Chin's (1998) guidelines, the AVE values in this study revealed high loadings (> 0.50) on

their respective constructs, demonstrating adequate convergent validity. Table 2 below shows the composite reliability and Average Variance Extracted (AVE) of the study.

Table 2: Composite Reliability and Average Variance Extracted (AVE)

Constructs	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
Students' Academic Performance	0.852	0.799	0.668
Seminar	0.863	0.898	0.604
Workshop	0.887	0.906	0.552

5.6. Discriminant Validity

This refers to the extent or degree to which a specific latent construct is dissimilar from other latent constructs (Duarte, 2010). In this study, discriminant validity was determined by using Average Variance Extracted (AVE), as recommended by Fornell (1981). We thereby compared the relationships among the latent constructs with square roots of AVE (Fornell, 1981). Further, discriminant validity was determined in line with Chin's (1998) standard by comparing the pointer loadings with other indicators in the cross loadings. The Tables 3 and 4 below explain the discriminant validity and cross loadings of the study.

Table 3 : Discriminant Validity

Constructs	Students' Academic Performance	Seminar	Workshop
Students' Academic Performance	0.817		
Seminar	0.313	0.777	
Workshop	0.525	0.592	0.743

Note: Entries shown in yellow face represent the square root of the average variance extracted.

Table 4 : Crossloadings

Constructs	Academic Performance	Seminar	Workshop
AP1	0.720	0.002	0.316
AP2	0.905	0.419	0.512
SM1	0.157	0.801	0.413
SM2	0.190	0.692	0.315
SM3	0.200	0.494	0.339
SM4	0.283	0.868	0.248
SM5	0.348	0.896	0.467
SM6	0.152	0.836	0.360
WK1	0.221	0.497	0.753
WK2	0.184	0.300	0.582
WK3	0.408	0.473	0.770
WK4	0.352	0.423	0.885
WK5	0.201	0.301	0.855
WK6	0.257	0.120	0.538
WK7	0.228	0.435	0.800
WK8	0.221	0.240	0.690

Note: Entries shown in yellow face represent the square root of the average variance extracted

5.7. Assessment of Significance of the Structural Model

Having ascertained the measurement model, the next thing was the assessment of the structural model. Before that, we applied the normal bootstrapping process to assess the significance of the model (Henseler, 2009; Hair, 2011; Hair, 2014). Therefore, Figure 6 shows the estimates for the full structural model.

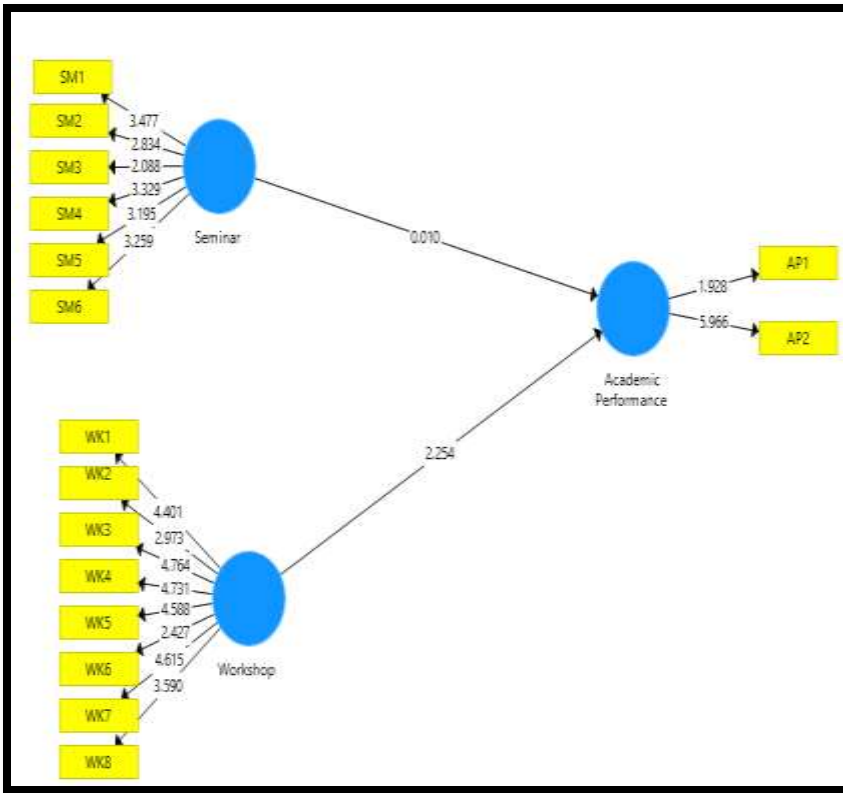


Figure 6: Structural Model

Table 5 : Structural Model Assessment

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Value	Decision
Seminar – Academic Performance	0.003	0.140	0.278	0.010	0.990	Not Supported
Workshop Academic Performance	0.523	0.480	0.232	2.254	0.031	Supported

However, concerning the research question 2, it was whether or not the teachers' training (seminar) programmes influence students' academic performance. In answering this question, we hypothesized that teachers' seminar programme is

positively related to students' academic performance. Result in Table 5 and Figure revealed a negative relationship between teachers' seminar programme and students' academic performance in school ($\beta = -0.03$, $t = 0.010$, $p > 0.05$), thereby rejecting the hypothesis. Going by this result, it shows that teachers who had undergone training (seminar) do not translate to positive academic performance on the part of their students they teach in the classroom. This finding is congruent with the findings of Asikhia (2010) who found that students' academic performance is not totally dependent on the training that the teachers acquired through various development programmes, it depends on students' self-motivational factors such as self-efficacy, attentiveness, and intellectual ability.

On research question 3, it was whether or not the teachers' training (workshop) programmes influence students' academic performance in school. In response to this question, the second hypothesis stated that, teachers' workshop programme is positively related to students' academic performance. Interestingly, PLS path modeling results indicate that teachers' workshop programme is positively related to students' academic performance in school ($\beta = 0.523$, $t = 2.254$, $p < 0.025$), thereby confirming the predicted hypothesis. This result means that the teachers who acquired workshop programmes are more equipped and thus have the intellectual capacity to impact an adequate knowledge on their students in the classroom which will in turn have a positive influence on students' academic performance. This finding is consonance with the findings of Avery (2001), Coffin (2008), Selemani-Meke (2013) and Swinton et al. (2008) who found that teacher s' development is important for the development on one part, and for the success of the students on the other part.

Updating teachers' knowledge is akin to achieving academic excellence; therefore training of teachers is sacrosanct. Also, this finding has validated change theory, who postulated that providing capacity building for teachers helps them to perform better in the classroom since change is constant, teachers need to be updated from time to time to have the knowledge of 21st century as well as compete favorably with their foreign counterpart.

Furthermore, this study has contributed to the body of knowledge from three perspectives, namely practical, theoretical and methodological perspectives.

From practical perspective, this study would serve as an example on how to provide teachers' capacity building in secondary schools. Specifically, it would help the school administrators as well as government on how to provide capacity building for its teachers. More so, relevant literature shows that change theory is a well-established theory that helps to understand the importance of teachers' capacity building in school, thus change theory was included in this study for a better understanding of the study phenomenon. Methodological perspective, a broad review of the literature shows relationship between teachers' capacity building and academic performance were mainly analyzed with SPSS, therefore this study contributes to the body of knowledge by analyzing the data collected through a sophisticated software PLS-SEM, which helps to show the aesthetic beauty of the study model.

6. Conclusion and Recommendations

This study concluded that training and re-training of teachers is an essential factor for determining students' success and its importance cannot be over-emphasized, hence the need for capacity building for teachers in secondary schools. Therefore, capacity building should be constantly provided for teachers with a view to boost their morale and make them efficient and effective. Improved budgetary allocations should be made by government for teachers to attend various capacity building programs. Private and individuals should be involved in providing capacity building for teachers. Lastly, no teacher should be left out in capacity building programs as teachers remain the bedrock to students' success.

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