



# Teacher Training and Provision of Quality Education in Public Secondary Schools in Arusha City

Dr. Kennedy Omondi Otieno

Coordinator Postgraduate Studies Research & Publications

St. Augustine University of Tanzania (SAUT), Arusha.

Email: [omondiken2016@gmail.com](mailto:omondiken2016@gmail.com)

**Abstract:** *This study examined the relationship between teacher training and provision of quality education in secondary schools in Arusha city. Data was collected from 8 public schools; one DEO and 8 school heads were purposively sampled while 99 teachers from public secondary schools were sampled using stratified and simple random sampling. Questionnaires were used to collect data. The reliability test for the teacher's questionnaire ( $r=0.985$ ) was done through split half method. The study employed Ex-post facto research design. Data collected was analyzed using multiple regression analysis. For the first hypothesis, there was a positive correlation among the seven independent variables and the dependent variable - provision of quality education ( $R=0.650$ ;  $F_{(11, 98)} = 14.665$ ;  $p<0.05$ ). The seven variables accounted for 65% of the total variance in the dependent measure ( $R^2 = 0.605$ ). Thus, the study reveals a significant relationship between pre-service training and provision of quality education in public Secondary Schools ( $F> 2.52$ ). Similarly, for the second hypothesis, there was a positive correlation among the seven independent variables and the dependent variable – provision of quality education ( $F_{(10, 98)} = 56.265$ ;  $p<0.05$ ). The seven variables accounted for 86.5% of the total variance in the dependent measure ( $R^2=0.849$ ). A significant relationship between in-service training and provision of quality education in public secondary schools ( $F>2.52$ ) was established. Consequently, the null hypotheses were rejected and the alternative hypotheses were accepted. Therefore, the study recommends teacher training, recruitment of more competent teachers, better remuneration of teachers, and continuous education and training as the factors that the government and all stakeholders should pay more attention to.*

**Keywords:** Teachers, Training and Quality Education, Challenges, Arusha, Tanzania

## How to cite this work (APA):

Otieno, K. O. (2022). Teacher Training and Provision of Quality Education in Public Secondary Schools in Arusha City. *Journal of Research Innovation and Implications in Education*, 6(2), 177 – 187.

## 1. Introduction

Teacher training is a programme that is related to the development of teacher proficiency and competence that would enable and empower the teacher to meet the requirements of the profession and face the challenges therein. Therefore, the availability of qualified teachers determines the students' academic outcome (Akinsolu, 2010). Teacher training has been a subject of discussion at all levels, from the government, ministries, regulatory

bodies, schools, to teachers themselves. No nation develops beyond the quality of its education system, which is highly dependent on the quality of its teachers (Prasad, 2014). Thus, teacher training should be given the necessary attention that include provision of appropriate tools during and after their training, adequate content, knowledge and skills as well as teaching methodology to be able to do their work professionally. In the views of Barret (2016), modern society demands high quality teaching and learning from teachers. Teachers have to possess a great deal of knowledge and skills with regard

to both teaching and assessment practices in order to meet those demands and standards of quality education.

Bruno (2012) noted that teachers' academic training could imply all the expertise teachers need in order to teach effectively. Such skills consist of formal education, years of experience, mastery of the subject one teaches, teaching methodology or approaches, period of training, certification or licensing and professional development. The possession of all these skills is what builds up a qualified teacher and no one skill is sufficient to make up a qualified teacher. This is also attributed to the outstanding cooperation accorded to the researcher by the school teachers and students who participated in the study.

According to Centre for Public Education (2005), there are two levels of training in which teachers receive their academic qualification, these are; pre-service training and professional development programs (in-service training). Pre-service training is the initial training offered to prospective teachers to prepare them for the teaching career. The pre-service training programs differ from country to country though they must all be focused on all the basic skills and knowledge that teachers require in order to teach successfully. According to United Republic of Tanzania (2005), pre-service training prepares a person for a teaching career. It provides future teachers with comprehension in educational theories, knowledge and skills in different subjects, education philosophy, teaching methodologies, social skills, and educational ethics so that he or she can begin a successful teaching career. Shabani (2017) pointed out that a teacher is expected to master his or her area of specialization so that he or she can be in a good position to help learners. Every nation should strive to avoid producing half-baked teachers because it is likely they will produce half-baked learners.

The objectives of teacher training are derived from the national vision and education philosophy. They are well stipulated in Tanzania's Education and Training Policy (Mhonyiwa, 2014). According to the policy, the aims and objectives of teacher training include to impart to teacher trainees the theories and principles of education, psychology, guidance, and counseling, impart to teacher trainees the principles and skills of pedagogy, creativity, and innovation, promote an understanding of the 'foundations of the school curriculum. Besides, it sharpen the teacher trainees, teachers', and tutors' knowledge and mastery of selected subjects, skills, and methodologies, impart the skills and techniques of research, assessment, and evaluation in education and enable teacher trainees, in-service teachers, and tutors to acquire organizational, leadership, and management skills in education and training (URT, 2005).

However, after the trained teachers are absorbed into the teaching sector, they are offered professional development programs (in-service training) to improve their effectiveness, teaching quality and professionalism

(HakiElimu, 2014). In-service training is given to teachers who are already working. This training is supposed to be provided constantly and consistently and differ in approaches. The aim of in-service teacher training is to improve the quality of teaching among teachers, as well as acclimatizing new teachers so that they can carry out effective teaching and learning. Tchombe (2010) observed that without this training, teachers will be outdated, will not manage to cope with changes, and will thus lose their ability to work effectively and efficiently. According to Educational psychology, teachers who do not receive in-service training do not enjoy their jobs and hence become de-motivated (Prasad, 2014). It should be noted that teachers always keep on learning, updating, and refreshing their knowledge; therefore they continually need new knowledge and skills to enable them to carry out effective teaching. Most of the time, in-service training is offered through short courses, seminars, workshops, meetings and other special training. This training is offered by the government and other education stakeholders within or outside the country.

The serving teachers are recommended for professional development programs and courses depending on their particular professional needs at any point in time in their career. According to Chandi (2015), the students' academic outcome is measured by the results they attain in national examination, which is a standardized instrument, a reliable measure and a good indicator of the quality of education offered in schools. Quality has become the concern of educational policy-makers around the world as the heart of education. Lack of quality means basic educational needs go unsatisfied. This would create inability in learners' lives and compromise their overall experience of living socially, culturally and economically.

In Tanzania, teacher training is done in three categories depending on their professional qualification; grade A teachers, diploma teachers and degree teachers (Moshia, 2017). Grade A teachers are proficient to teach in primary schools, diploma teachers are qualified to teach in secondary schools even though some teach in primary schools, and degree teachers are trained to teach in secondary schools and as tutors in teacher training colleges. Secondary school teachers are trained in pedagogical skills and teaching methods and if the student-teachers complete their training successfully, they graduate as professional teachers and are employed by the government or private institutions as secondary school teachers.

Consequently, a teacher should be able to recognize the way students understand and perceive reality and the way it forms the students' own perspectives and experiences. The teacher should be able to integrate any knowledge students already possess with the new knowledge they are being taught. Similarly, the teacher should also understand the way students receive, process, and use information (Bruno, 2012). Another important consideration is the need to understand different learning abilities among

students and what motivates them to learn effectively. This is the most important area in any teacher training. A teacher who does not know his or her students' limits of understanding or thinking abilities will not teach effectively (McMillan, 2007). Moreover, teacher training should enable a teacher to know the strengths and weaknesses of his or her students as well as their interests. It is against this background that the current study sought to investigate the relationship between teacher training and provision of quality education in secondary schools in Arusha city.

## 1.2 Research Questions

The study answered the following research questions.

- i. What is the composite effect of teacher training on provision of quality education in secondary schools?
- ii. What is the relationship between in-service teacher training (professional developments programmes) and provision of quality education in secondary schools?

## 2. Literature Review

The empirical literature was reviewed with reference to research questions.

### 2.1 Pre-service Teacher Training and Provision of Quality Education in Secondary Schools

Harris (2012) conducted a study in colleges on teacher training, teacher quality and student achievement in United State and discovered that there are effects of various types of education and training on the ability of teachers to promote student achievement. The study addressed issues by estimating models that include detailed measures of pre-service and in-service training, a rich set of time-varying covariates, and student, teacher, and school fixed effects. The results suggested that only two of the forms of teacher training studied influence productivity. Prasad, (2014) pointed out that first, content-focused teacher professional development is positively associated with productivity. Second, more experienced teachers appear more effective.

Jamwal (2012), while investigating the effects of teacher training on the quality of education in Turkey, asserted that student achievement is caused by many factors including ineffective system of teacher training and ineffective system of teacher and school supervision. The significant role of teachers in improving quality of education cannot be overemphasized. UNESCO (2012) reported that, teachers are ultimately the determinants of our collective ability to innovate, to invent, and to find solutions for tomorrow. Nothing will ever replace a good

teacher and nothing is more important than supporting them. Robin (2017) pointed out that a well prepared teacher appears to be effective with learners of all achievement levels no matter heterogeneous nature of their classroom. In the same context for developing countries, the quality of teacher training measured by subject matter has more significant impact on student performance in comparison with teacher's experience.

The research conducted by Buddin and Zamarro (2019), in California, United States of America (USA), to examine factors and attributes that affect students' performance in elementary education, demonstrated that three types of teacher licensure tests are needed as part of their certification process to ascertain their qualification. These tests are on; overall teaching knowledge, subject mastery (secondary school teachers are tested in one subject of specialization while elementary school teachers are tested in multiple subjects), besides, the elementary school teachers are also to be examined on pedagogical skills (Azad & Kumar, 2016). This is actually the general academic qualification of teachers in United States though there are specific qualifications emphasized in a particular subject.

The American Association of Physics Teachers (AAPT) conducted a research on the Role, Education, Qualifications, and Professional Development of Secondary Physics Teachers, in order to provide some guidance for school administrators on how to gauge a candidate's qualification to teach Physics (Cohen, 2016). The findings revealed that the preparation for secondary school Physics teachers requires; good mastery of the subject content, common teaching courses, and the capacity to apply the appropriate teaching methods and approaches in teaching Physics. This implies that a Physics teacher should have knowledge of subject matter, teaching pedagogy, knowledge of learners, curriculum and assessment. Buddin and Zamarro (2019) added that these skills are acquired during the pre-service training.

According to Prasad (2014), who conducted a study on Enhancement of Quality in Teacher Education in Pakistan, teacher education confront the problems such as financial constraints, shortage of facilities (such as buildings, equipment, furniture, teaching aids, library books, reading materials). Chandi (2015) identified other challenges facing quality education such as defective examination system; teacher absenteeism, imperfect management, shortage of supervision, absence of accountability exercise, shortage of incentives, meager hope of a career track, lack of motivation among teachers, teachers transfer based on favoritism and nepotism, political interference, appointment of under qualified teachers, shortage of teaching staff and lack of teaching and learning resources.

Azad & Kumar (2016) conducted a study on Teacher training, some policy issues and challenges in India in which they come out with the findings which show

education is the key for development of any nation and it depends on the quality of teachers. Knowledge, dedication, quality, professional commitment and motivation of teachers are the factors responsible for quality education and learner achievement. Producing such teachers is a major challenge for governments across the globe today. Ayesha (2018) observed that with the ever increasing amount of knowledge today, teacher's job has been more challenging in the light of new pedagogical and psychological theories, philosophy, sociology and globalization. Well planned and imaginative Teacher training programmes are required today. Teacher education programs have to be critiqued, studied, reformed, rethought and reoriented today. The study concluded that improvement in quality education is a three dimensional task involving the government, parents and students.

According to Vermunt (2014), high quality teacher training influences student-learning outcome as a result. Teachers must undergo cognitive and meta-cognitive learning processes in order to achieve learning outcome in the form of changed beliefs about their practice or, even better, change in behavior. These processes are cognitive thinking activities that are used to process learning content, for example classroom management. Teacher's training in terms of improved knowledge and skills is a field of classroom management that influence student learning environment and student learning outcome because of changed student learning processes.

In addition, Aarons (2010) reported that the major challenges facing teacher education in Nigeria is how to revitalize teaching and teacher training. He stresses further that there are currently three national agencies with some responsibilities for the teaching profession. These agencies are the National Commission for Colleges of Education (NCCE) which coordinates and monitors teacher education in all colleges of education, The National Teachers Institute (NTI), which provides in-service training programmes and the Teacher's Registration Council (TRC), which maintains a national register and code of conduct for teachers. These bodies have been setup to aid the professionalization of teaching. However, Akinsolu (2010) posit that there is a problem of attrition in the teaching force and low enrolment in teacher education programme. The reason for this is the lack of motivation for teachers.

Harris (2012), in a study carried out in university of Dar es salaam, gave some suggestions for improving the condition of teacher education that is, teacher education institutions should be put under strict control of this regulatory body for the selection of teacher, students and provisions of good infrastructure. The work taking place in Teacher education institutions should be examined from time to time and strict action should be taken if they fail to come up to expected level. Chinapah (2010) opined that evaluating Teacher training, like technical education and

higher education must be the responsibility of the central government. In this case, the members of the staff of teachers colleges should be closely associated with the schools. The course of studies and the practical work and teaching practice can be easily moderated in such a way that they will have useful implications for improving school practices.

According to HakiElimu (2011), on their study conducted in Tanzania about the significance of quality teacher training for the development of quality education reveals that it is obvious the development of any society depends much on education. Education empowers people, providing them with strong analytical and problem solving skills. These skills are used to overcome challenges that a society faces. Quality education outcomes are dependent upon quality teachers who are the main actors in the teaching and learning process for the provision of quality education.

## **2.2 In-service Teacher Training and Provision of Quality Education in Secondary Schools**

Kini and Podolsky (2016) examined 30 studies that analyzed the effect of teaching experience on student outcomes in K-12 public schools of USA, as measured by student standardized test scores (students t-test) and non-test metrics. It was further found out that as teachers gain experience; their students are more likely to do better on other measures of success beyond test scores, such as school attendance. Data collected for this study was analyzed using students t-test while the current study used multiple regressions to analyze the data.

Barret (2006) investigated the effects of mathematics teacher and classroom characteristics on students' mathematics achievement across Turkey, European Union countries. Results of the study showed that experience of teacher had a positive significant effect in some countries such as Turkey and Netherlands, but negative significant effect in other countries such as Slovak Republic and Slovenia.

The study conducted by Daso (2013), in River state, Nigeria to find out the relationship between teachers variables and students' academic achievement in Mathematics in senior secondary school, adopted Ex-post Facto research design by retrieving and analyzing Mathematics test scores of the Students. The research found no significant relationship between teachers' teaching methodology, teachers' attitude and students' achievement in Mathematics.

The paper reviewed by Kola and Sunday (2015), on Teachers' Professional development and its Implication on Students' Academic Achievements in Nigerian schools, reviewed different opinions on the relationship

between the indicators of teachers professional needs and students' academic achievements. Though, it seemed that there was no consensus among the authors as regards to the subject, there was a common opinion that subject matter knowledge, pedagogy studies, professional development and year of experience were imperative and positively correlated with students' academic achievement. The researcher used quantitative approach in the study and correlation design to identify how teacher's Professional development is related to students' academic performance by computing correlation coefficient.

A study by Kiumi (2012) in Kitui County, Kenya, aimed at looking into the extent to which teacher qualification and in-service training influence students' academic performance in Science Mathematics and Technology subjects. The study used Ex- post Facto survey research design and random sampling to select respondents. The study established that there was no significant difference in the mean (academic performance) and teachers' qualification. Teachers were trained graduates, most of them attended in-service or refresher courses.

The study conducted by Mhonyiwa (2014), in Ilala Municipality, Dar Es Salaam, on factors that are responsible for poor students' performance in commercial subjects in secondary schools, revealed that teachers' training and professional development are related to students' academic performance. The researcher also suggested that teachers' qualification could be improved by having adequate years of experience, in-service training, improvement teachers' proficiency in the language of instruction and good knowledge of the subject matter. However, the students' performance could be improved by availability of qualified teachers and teaching materials, teachers' motivation, good management or school heads' support, students interest in studying the subject and school inspection (MoEVT, 2017).

### 3. Methodology

The study adopted Ex-post facto survey research design also known as *Causal-comparative research design*. According to Creswell and Plano (2011) the design is used when the researcher wants to identify cause-effect relationship among variable that cannot be manipulated because the events had already happened. Data was collected from eight public schools; One District Education Officer (DEO) and 8 heads of schools were purposively sampled while 99 teachers from public secondary schools were sampled using stratified (gender) and simple random sampling. Teacher's Questionnaire (TQ) was used to collect data. The reliability test for the teachers' questionnaire was done through split half method and the results correlated at  $r=0.985$  and according to Gay (2009), the instrument was considered appropriate for the study. The data collected was analyzed using multiple regression analysis.

### 4. Results and Discussions

The study tested two null hypotheses using multiple regression at .05 alpha level.

**HO<sub>1</sub>:** There is no statistically significant relationship between pre-service teacher training and provision of quality education in Secondary Schools.

The results of the findings are presented according to how the research questions were stated.

#### Research question one

What is the composite effect of teacher training (formal, diploma, bachelor and master) on provision of quality education in secondary schools? Answers to this research question are obtained from the results in Tables 1 and 2.

**Table 1: Summary of Regression Analysis on Pre-service Teacher Training**

Multiple R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard Error	F ratio
.806	.650	.605	0.840	14.665

\*sig. at  $p < 0.05$  Source: Field data (2021)

**Table 2: Analysis of Variance on Pre-service Teacher Training**

	Sum of Squares	Df	Mean Square	F	Sig.
Regression	113.955	11	10.360	14.665	.000
Residual	61.459	87	.706		
Total	175.414	98			

\*sig. at  $p < 0.05$  Source: Field data (2021)

From Table 1, it could be observed that there is positive multiple correlation ( $R = 0.806$ ) among the eleven independent variables and the dependent variable. These variables are formal education, diploma training, bachelor training, duration of training, subject mastery, language proficiency, language mastery, adequate teaching/learning materials, dissemination of knowledge, understanding content and quality grades (independent variables) and quality education, which is the dependent variable. This implies that the factors are relevant towards the

determination of the dependent measure. Similarly, the adjusted  $R^2$  value of 0.605 revealed that the seven variables accounted for 65% of the total variance in the dependent measure (quality education). The remaining 35% could be due to errors and factors that are not considered in this study. The result in the analysis of variance in table 2 showed that the F-ratio of the regression analysis is significant ( $F_{(11,98)} = 14.665$ ;  $p < 0.05$ ). This shows that the R value obtained is not due to chance.

**Table 3: Estimate of the Relative Contribution of Pre-service Teacher Training on Quality Education**

Independent Variables (Predictors)	Unstandardized Coefficients		Standardized Coefficients			
	Beta	Standard error	Beta	Rank	t	Sig.
Formal education	0.098	0.186	0.052	6 <sup>th</sup>	0.525	0.601*
Diploma training	-0.991	0.194	-0.465	10 <sup>th</sup>	-5.114	0.000
Bachelor training	0.310	0.136	0.314	3 <sup>rd</sup>	2.279	0.025*
Duration of training	0.397	0.174	0.217	4 <sup>th</sup>	2.277	0.025*
Subject mastery	-0.137	0.227	-0.067	9 <sup>th</sup>	-0.605	0.547*
Language proficiency	0.308	0.106	0.347	2 <sup>nd</sup>	2.899	0.005*
Language mastery	0.261	0.260	0.132	5 <sup>th</sup>	1.005	0.318
Adequate materials	0.353	0.104	0.395	1 <sup>st</sup>	3.395	0.001*
Dissemination of knowledge	-0.116	0.223	-0.065	8 <sup>th</sup>	-0.519	.605
understanding Content	-0.953	0.215	-0.720	11 <sup>th</sup>	-4.433	0.000
Quality Grades	0.095	0.109	0.117	7 <sup>th</sup>	0.866	0.389*

\*sig. at  $p < 0.05$  Source: Field data (2021)

From table 3 out of the eleven factors, adequate teaching/learning materials made the greatest contribution ( $\beta = 0.395$ ). This implies that the provision of adequate teaching/learning materials has positive effect on the quality of education otherwise as concluded by Prasad (2014) that teacher education should confront the problem of adequate teaching/learning materials whose provision lead to better quality of education in secondary schools. Followed closely is language proficiency ( $\beta = 0.347$ ). This indicates that the more the language competency of

teachers the better the quality of education given to students (Numero, 2016). Bachelor training of teachers ( $\beta = 0.314$ ) also contributes to quality of education in secondary schools. This result shows that most respondents preferred degree training for teachers as the minimum academic qualification for secondary school teachers. According to the respondents, this will enhance quality of education given to students. The fourth in the rank of contribution is duration of training ( $\beta = 0.217$ ). HakiElimu (2014), shows that provision of quality

education in secondary schools also depend on duration of training of teachers and time taken in practice. Well trained teachers are versed with the necessary pedagogical skills and teaching methodologies. The fifth and sixth contributions in order of decreasing magnitude are language mastery ( $\beta = 0.132$ ) and formal education ( $\beta = 0.052$ ). Quality Grades ( $\beta = 0.117$ ) at 7<sup>th</sup> position is also an indicator for provision of quality education. These results shows that dissemination of knowledge ( $\beta = -0.065$ ) and subject mastery ( $\beta = -0.067$ ) at 8<sup>th</sup> and 9<sup>th</sup> position respectively, have considerable effect on the provision of quality education in public secondary schools. Furthermore, diploma training ( $\beta = -0.465$ ) and understanding content ( $\beta = -0.720$ ) made the 10<sup>th</sup> and 11<sup>th</sup> contribution in that order.

The results in Table 3 shows that adequate teaching/learning materials ( $B=0.353$ ,  $t=3.395$ ;

$p<0.05$ ), formal education ( $B=0.098$ ,  $t=0.525$ ;  $p<0.05$ ), duration of training ( $B=0.397$ ,  $t=2.277$ ;  $p<0.05$ ), bachelor training ( $B=0.310$ ,  $t=2.279$ ;  $p<0.05$ ), language proficiency ( $B=0.308$ ,  $t=2.899$ ;  $p<0.05$ ), quality grades ( $B=0.095$ ,  $t=0.866$ ;  $p<0.05$ ) and subject mastery ( $B=-0.137$ ,  $t=-0.605$ ;  $p<0.05$ ) could be used to predict provision of quality education in secondary schools in Arusha City.

**H0<sub>2</sub>:** There is no statistically significant relationship between in-service teacher training and provision of quality education in secondary schools.

### Research question two

What is the relationship between in-service teacher training (professional developments programmes) and provision of quality education in secondary schools? Answers to this research question are obtained from the results in Tables 4 and 5 below.

**Table 4: Summary of Regression Analysis on In-service Teacher Training**

Multiple R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Standard Error	F ratio
.930	.865	.849	.519	56.265

\*sig. at  $p<0.05$

**Table 5: Analysis of Variance on In-service Teacher Training**

Source of Variance	Sum of Squares	Df	Mean Square	F	Sig.
Regression	151.689	10	15.169	56.265	.000
Residual	23.725	88	.270		
Total	175.414	98			

\*sig. at  $p<0.05$  Source: Field data (2021)

It can be observed from table 4 that there is positive multiple correlation ( $R = 0.930$ ) among the ten independent variables and the dependent variable. These variables are in-service training, professional development courses, years of experience, teacher's professionalism, workshops, professional needs, seminars, motivation of in-service, prudent management and leadership skills (independent variables) and quality education, which is the dependent variable. This implies that the factors are relevant towards the determination of

the dependent measure. More so, the adjusted R<sup>2</sup> value of 0.849 reveals that the seven variables accounted for 86.5% of the total variance in the dependent measure (quality education). The remaining 13.5% could be due to factors that are not considered in this study. The result in the analysis of variance in Table 5 indicates that the F-ratio of the regression analysis is significant ( $F_{(10,98)} = 56.265$ ;  $p<0.05$ ). This shows that the R value is not due to probability.

**Table 6: Estimate of the Relative Contribution of In-service Teacher Training on Quality Education**

Independent Variables (Predictors)	Unstandardized Coefficients		Standardized Coefficients			
	B	Standard error	Beta	Rank	t	Sig.
In-service training	0.308	0.084	0.241	3 <sup>rd</sup>	3.671	0.000*
Professional development courses	-0.512	0.094	-0.502	10 <sup>th</sup>	-5.464	0.000*
Years of experience	0.530	0.098	0.290	2 <sup>nd</sup>	5.396	0.000*
Teacher's professionalism	0.213	0.061	0.223	4 <sup>th</sup>	3.526	0.001*
Professional needs	-0.150	0.064	-0.119	8 <sup>th</sup>	-2.343	0.021
Seminars	0.676	0.083	0.703	1 <sup>st</sup>	8.106	0.000*
Workshops	0.528	0.074	0.132	6 <sup>th</sup>	7.149	0.000
In-service motivates	0.150	0.070	0.145	5 <sup>th</sup>	2.134	0.036
Prudent management	-0.212	0.090	-0.116	7 <sup>th</sup>	-2.364	0.020*
Leadership skills	-0.171	0.084	-0.195	9 <sup>th</sup>	-4.433	0.045*

\*sig. at p<0.05 Source: Field data (2021)

From Table 6, out of the ten factors, seminars made the greatest contribution ( $\beta = 0.703$ ). According to Ogata (2012), the provision of quality of education largely depends on the success of the seminars organized by the education stakeholders. This finding was followed by years of experience ( $\beta = 0.290$ ). In-service training of teachers ( $\beta = 0.241$ ) also contributed to quality education in secondary schools in Arusha city. Consequently, McMillan (2007) asserted that the more in-service training of teachers, the better the quality of education given to students. The findings shows that most respondents prefer teachers' to observe professionalism ( $\beta = 0.223$ ) in discharging their duty. According to Otieno and Yara (2010), this will enhance quality of education given to students. The fifth in the rank of contribution is In-service training motivates teachers ( $\beta = 0.145$ ). This result shows that provision of quality education in secondary schools also depend on workshops ( $\beta = 0.132$ ) organized for teachers. Prudent management ( $\beta = -0.116$ ) of resources is a requirement for provision of quality education. The eighth and ninth contributions in order of decreasing magnitude are professional needs ( $\beta = -0.119$ ) and leadership skills ( $\beta = -0.195$ ). These results shows that Professional needs ( $\beta = -0.119$ ) and leadership skills ( $\beta = -0.195$ ) at 8<sup>th</sup> and 9<sup>th</sup> position respectively have substantial effect on the provision of quality education in public secondary schools. Finally, professional development courses ( $\beta = -0.502$ ) at 10<sup>th</sup> position is also an indicator for provision of quality education in secondary schools in Arusha City.

In table 6 results indicate that if all other factors remain constant, leadership skills ( $B = -0.171$ ,  $t = -4.433$ ;  $p < 0.05$ ), seminars ( $B = 0.676$ ,  $t = 8.106$ ;  $p < 0.05$ ), years of experience ( $B = 0.530$ ,  $t = 5.396$ ;  $p < 0.05$ ), teacher's professionalism ( $B = 0.213$ ,  $t = 3.526$ ;  $p < 0.05$ ), in-service training ( $B = 0.308$ ,  $t = 3.671$ ;

$p < 0.05$ ), prudent management of resources ( $B = -0.212$ ,  $t = -2.364$ ;  $p < 0.05$ ) and professional development courses ( $B = -0.512$ ,  $t = -5.464$ ;  $p < 0.05$ ) could be used to predict provision of quality education in secondary schools in Arusha City.

## 5. Conclusion and Recommendations

### 5.1 Conclusions

The study found that of the eleven independent variables (formal education, diploma training, bachelor training, duration of training, subject mastery, language proficiency, language mastery, adequate teaching/learning materials, dissemination of knowledge, understanding content and quality grades) that were investigated for the first hypothesis, only four variable were insignificant while the remaining seven variables were significant and can be used to predict the provision of quality education in public secondary schools. Adequate attention should therefore be placed on these variables (formal education, duration of training, bachelor training, language proficiency, quality grades, subject mastery and adequate teaching/learning materials) in order to increase chances of successfully providing quality education. Based on F Ratio in table 2, the study reveals that there is statistically significant relationship between pre-service teacher training and provision of quality education in public Secondary Schools in Arusha city. From table 2 above,  $F = 14.665$  obtained is higher than the critical value of 2.52, thus the null hypothesis is rejected and alternative hypothesis is accepted (\*F significant. at 0.05 level). That is to say; there is statistically significant relationship between pre-service teacher training and provision of quality education in public Secondary Schools. In other words as rightly observed by Numero (2016), teacher



training should be given special attention in order to help pre-service teachers learn the aspects for provision of quality education.

The study further reveals that there is statistically significant relationship between in-service teacher training and provision of quality education in secondary schools in the second hypothesis. Table 5 gives F-Ratio value ( $F=56.265$ ) for the hypothesis, which is greater than the critical value of 2.52, therefore, the null hypothesis is rejected and alternative hypothesis is accepted. Finally, based on the findings, the study concludes that if all other factors remain constant, pre-service training, in-service training, leadership skills, years of experience, teacher's professionalism, prudent management of resources and professional development courses could be used to predict the provision of quality education in Secondary Schools in Arusha City. Therefore, satisfactory attention should be given to these variables if realizing quality education is both short term and long term goal for education institutions. These steps if gradually achieved will put the sector to be in harmony with education mission of the country; to improve the quality of education and training and put in place structures and procedures that will enable the country to get a critical mass of educated Tanzanians who desire to continue learning in order to add value in achieving national development goals (Moshia 2017). In a nutshell, training is a promising gateway to competencies required for service delivery in the 21<sup>st</sup> century.

## 5.2 Recommendations

The study suggests the following in order to improve provision of quality education in secondary schools in Arusha City:

- (i) Based on the findings from the study, the government is encouraged to give more financial support to public universities, ministry of education and secondary schools. Adequate financial support will enable the universities to put in place the necessary basic infrastructure for pre-service teacher training.
- (ii) The government should allocate adequate budget to the ministry of education in order to organize

periodic professional development courses, seminars and workshops to enhance teachers' teaching methods and pedagogical skill basically to keep them abreast with the emerging issues in the contemporary society. The provision of adequate financial support through increased government capitation grant will enable secondary schools to acquire teaching/learning materials and expand their physical infrastructure for the purposes of provision of quality education.

- (iii) The government should also recruit competent and adequate trained teachers and deploy them to all schools across the country. In view of the fact that rural schools tend to be less attractive to teachers as pointed by Otieno and Yara (2010), the government should come up with a rural based teacher incentive programme with a view of attracting and retaining teachers in rural schools. This will improve teacher – student ratio hence provision of quality education.
- (iv) Furthermore, there is a need to economically empower rural communities. This will enhance parents' capacity to not only provide for their children but also to augment their children education with resources at home.
- (v) In addition, measures should be put in place to protect schools from political interference and partisan interest from stakeholders in order to give school leadership opportunity to manage schools professionally. However, political collaboration with school leadership should be encouraged.
- (vi) There is need for skilled based curriculum that will satisfy the aspiration of the country and not external forces.
- (vii) Finally, the government and other stakeholder in education should motivate teachers by providing conducive working environment and improving their remuneration so that they can dedicate their efforts towards teaching and learning alone. This will go a long way in improving their standard of living hence the students will see them as good role model in the society who can be listened to and emulated.

## References

Aarons, A. (2010). *Universal Basic Education: Issues of teaching and learning*, Nigeria: World Bank Research Report, Abuja.

Adeyemi, B. (2010). *Teacher Related Factors as Correlates of Pupils Achievement in Social Studies in South West Nigeria*. Electronic J. Res. Educ. Psych.

Akinsolu, A.O. (2010). Teachers and Students' Academic Performance in Nigerian Secondary Schools: Implications for Planning. *Florida Journal of Educational Administration & Policy*.

Ayesha .E. (2018). *Quality assurance and book development in lower basic education: Efforts of the Nigerian Educational Research and Development Council (NERDC)*. Nigerian Journal of Curriculum Studies. Special Edition pp 45-52.

- Azad, and Kumar A, (2016). Education for Happiness: The role of Value Education and Life skills. *Acme International Journal of Multidisciplinary Research. IV (IV) p 28-34.*
- Barret, A. M. (2016). *The concept of quality in education: A review of the international literature on the concept of quality in education.* University of Bristol, UK and University of Bath, UK.
- Bruno, R. (2012). *Beyond the classroom: An analysis of a Chicago public school teacher's actual workday.* University of Illinois labor expert..
- Buddin, R. J. & Zamarro, G. (2019). Teacher Qualifications and Students Achievement in Urban Elementary Schools. *J. Urban Econ. Los Angeles.* Retrieved from [www.rand.org/pdfrd/contribute.html](http://www.rand.org/pdfrd/contribute.html).
- Centre for Public Education. (2005). *Teacher Quality and Student Achievement: Research Review.* Cpe.
- Chand D, (2015). Major problems and issues of teacher education.. *International Journal of Applied Research.1 (4) p 50-153.*
- Chinapah, V. (2010). *With Africa for Africa towards quality education for all.* Paris: UNESCO/UNICEF.
- Cohen J (2016). Social, emotional, ethical and academic education: Creating a climate for learning, participation in democracy and well-being. *Harvard Educational Review, 76 (2), 201-237.*
- Creswell & Plano (2011). *Educational research: Planning, conducting, and evaluating quantitative and qualitative research* (4th Ed). University of Nebraska–Lincoln: Pearson.
- Daso, O. P. (2013). Teacher Variables and Senior Secondary Students' Achievement in Mathematic in Rivers State, Nigeria. *European Scientific Journal April edition Vol. 9. No 10.*
- Gay, M. (2009). *Educational Research :An Introduction* . New York : Pearson Education ,Ink .
- HakiElimu (2014). Teaching Effectiveness in Primary School in Tanzania. Dar es Salaam. Retrieve from [www. HakiElimu.Org](http://www.HakiElimu.Org).
- HakiElimu. (2011). *Are our Teachers Qualified and Motivated to Teach? Teachers' Qualifications, Motivation and Commitment to teach and their Implications on Quality Education.* <http://www.ets.org/research/pic>.
- HakiElimu. (2009), *The Significance of Quality Teacher Training for the Development of Quality Education.* *Journal of Personnel Evaluation in Education, 14(4), 329-339.*
- Harris, A.(2012). *Educational Research.* London: Oxford University Press.
- Mbiti, M. D. (2007). *Foundations of school administration.* Nairobi: Oxford University Press
- Mbunda, F.L. (2018). Management Workshop for Teachers' Resource Centre. Dar es Salaam. Institute of Kiswahili Research.
- McMillan, R. (2007). *The impact of school Facilities on students' achievements.* Texas A & M University.
- Kini, D. & Podolsky, R. (2016). Contradictions, Challenges, and Chaos in Ethiopian Teacher Education. *Journal for Critical Education Policy Studies, 4(1).*
- Kiumi, J. K. (2012). Towards a Theory of Managing Parents-School Conflict in Kenya Paper Presented During Lakipia University 1<sup>st</sup> International Conference Held in Laikipia University between 20<sup>th</sup> -23<sup>rd</sup> June 2012
- Kola, B and Sunday, L. (2015). The importance of student and teacher interactions for disaffected middle school students. A Grounded Study of Community Day Schools: *Urban Education 46(1), 4-33.*
- Mhonyiwa, J. M. (2014). Factors Influencing Poor Examination Performance in Commercial Subjects in Tanzania Ordinary Level Secondary Schools: A case Study of Ilala Municipality, Dar es Salaam. Master Thesis: Open University of Tanzania.
- Mosha, A. Mary. (2017). *Challenges of Teachers Education in Tanzania.* Retrieved from [www.Fahamu.org](http://www.Fahamu.org). 2<sup>nd</sup> May. .2019.
- Mutai, B.K. (2006). *Teacher Quality and Quality Education: A complete and Simplified Recipe.* New York: Talley Publications.
- Numero, J. H. (2016). *Teacher learning and professional development.* In: Krolak-Schwerdt S. (Eds.). *Teachers' Professional Development, 79–95.*
- Ndunguru, E. (2015). *Relationship between Teachers' Educational Qualification and Students Academic Performance in Tanzania Secondary Schools: A case study of Mwanza City.*

- Ogata, B. (2012). *Influence of teaching and learning materials on children performance in pre-schools in Borabu District, Nyamira County, Kenya*. Department of Educational Administration and Planning. University of Nairobi.
- Oluwakemi, T. E. & Olukayode, O. E. (2010). *Teachers' Teaching Experience and Academic Performance in Mathematics and English Language in Public Secondary Schools*. Ogun State Nigeria.
- Otieno, K. O. and Yara, P. O. (2010). Teaching/learning resources and academic performance in mathematics in secondary schools in Bondo District of Kenya, Kampala International University. *Asian Social Science* 6 (12): 126–132.
- Prasad, L. (2014). Enhancement of Quality in Teacher Education. *Conflux Journal of Education*, 1(6): 1-9.
- Richardson, A. R. (2008). An Examination of Teacher Qualifications and Student Achievement in Mathematics. 7<sup>th</sup> & 8<sup>th</sup> Grade. Doctorate Thesis: Alabama. Auburn University.
- Robin, S. (2017). *Education administration and management*. (7<sup>th</sup> edition). New York: John Wiley & Sons.
- Shabani, J. (2017). *Quality Regimes in Africa: The Reality and the Aspirations*. *Chronicle of African Higher Education*. Retrieved April 30, 2019.
- Stronge, J.H., Ward, T.J., & Grant, L.W. (2011). What makes good teachers good? A cross-case analysis of the connection between teacher effectiveness and student achievement. *Journal of Teacher Education*, 62(4), 339–355.
- Tchombe, T.M. (2010). Progressive Transformative Teacher Education in Cameroon. *Journal of Teacher Education*, 56(3), 205-213.
- Ministry of Education and Vocational Training. (2017). *Tanzania Children's Perceptions on Education and their Role in the Society*. Dar es Salaam: REPOA.
- United Nation Educational, Scientific and Cultural Organization (2012). *Education for all global monitoring report*. Retrieved from <http://www.unesco.org/new/education/themes/leading-the-international-> UNICEF
- United Nation Educational, Scientific and Cultural Organization (2008). *The quality imperative*. Paris: UNESCO.
- United Nation Educational, Scientific and Cultural Organization (2004). *Global monitoring report 2003/4: Gender and education, the leap to equality*. Paris: UNESCO.
- United Republic of Tanzania. (2005). *Ministry of communications and transport: National information and communications technologies policy*. Dar es salaam, Tanzania.
- Vermunt, J.D. (2014). *Teacher learning and professional development*. Teachers' Professional Development, 79–95.