Effects of Professional Development Programmes on Teachers' Performance in Public Secondary Schools in Arusha City, Tanzania

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Abstract: *The study investigated the effects of professional development programmes on teachers' performance in public secondary schools in Arusha City. Specifically, the study assessed factors that influence effectiveness of professional development programmes and possible ways of improving the effectiveness of professional development programmes offered in public schools. The study was guided by Bacon's Theory of Performance. Convergent mixed methods design was adopted. The study targeted a population of 1962 (850 teachers, 35 school heads, 27 WEOs & 1 DSEO) in 35 secondary schools. Sample size consisted of 271 (255 teachers, 9 school heads, 6 WEOs & 1 DSEO). Teachers were selected through stratified simple random sampling techniques while school heads, WEOs and DSEO were purposively sampled. Data collection was done through questionnaires and interview guide. Validity was established through expert judgment whereas reliability (TQ; r=0.723) was determined using Cronbach's Alpha method. Credibility of qualitative data was established through triangulation. Descriptive statistics was used to analyses quantitative data in the SPSS version 25 and results were presented in tables, while qualitative data were analyzed thematically and presented in narrative forms. The results show that teachers perceive market demand as the most influential factor, indicating the need for professional development programmes that align with current job market requirements. The study concluded that the effectiveness of professional development programmes in public schools can be significantly enhanced by allocating more resources, promoting continuous improvement and securing political support. The study recommends healthy supervision mechanisms to ensure proper curriculum implementation.*
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1. Introduction

Professional development programmes (PDPs) are initiatives designed to help individuals improve their skills and knowledge in a particular field or profession. In the context of education, Baysal (2021) noted that professional development programmes are aimed at improving the teaching skills and knowledge of educators. These programmes may include workshops, seminars, conferences, online courses, mentoring, coaching, and other forms of training and support.

According to Borg and Al-Busaidi (2021), professional development programmes aimed at teachers encompass a broad spectrum of topics such as pedagogy, classroom management, curriculum design, assessment methodologies, technology integration, and content-specific knowledge. The objective of these educational programmes is to augment the standard of instruction and education in academic institutions while concurrently advancing the achievements of students. Professional development initiatives may be provided by educational institutions such as schools, districts, universities, or other related organizations. Training sessions can either be mandatory, as per requirement, or voluntary, as per individual preference. Teachers need to be competent because there is a strong positive relationship between teacher competence and students' academic achievements (Fauth et al., 2019). Teachers who are perceived to be competent by their students are more respected than the ones who are perceived to be less competent (Miller et al., 2017). Teacher competence is therefore an important consideration towards improving the quality of education.

Cooper (2019) reported that the curriculum of professional development courses exhibits notable variability that hinges upon the specific needs of educators and the overall objectives of the programme. For instance, Kosia (2020) reported almost 50% of teachers to lack skills on some teaching methods. Lack of skills on teaching methods has caused most of the teachers to continue using the traditional (one way) lecture method which does not encourage independent learning among learners.

On the same basis, Mwesiga and Malusu (2020) observed incompetence among heads of schools and teachers to be a major challenge hindering the provision of quality education. In Tanzania there is an outcry about incompetence among secondary school teachers whereby some have limited content, less pedagogical skills and poor classroom management skills (Ndibalema, 2018). Despite the absence of consensus, quality issues in all levels in education rely on the quality of teachers who are the product of quality education from colleges or universities and professional development programmes. There are several incompetence cases reported in Arusha district including; poor academic qualification of a teacher from formal training, lack of teaching experiences, teacher's incompetence in terms of masterly of the subject matter, poor motivation and creativity of a teacher on teaching and learning process (URT, 2020; Anangisye, 2018). Study by Omari (2020) indicated what Tanzania students prefer teachers who listen and observe their classrooms participation in order to get feedback.

As postulated by Nguyen et al. (2020), educational sector in Tanzania has been executing professional enhancement initiatives in public secondary institutions aimed at elevating the capacity of educators. Nevertheless, the success of these professional programmes is still a subject for discourse. This is necessary after realizing unsatisfactory academic performance of students (NECTA, 2022). It is therefore imperative to assess the efficacy of these initiatives in enhancing educator's proficiency and, in order to yield favourable academic results for students. In this regard, the current study seeks to examine the effects of professional development initiatives on the performance of teachers in public secondary schools located in the city of Arusha.

1.1 Research Questions

The following research questions guided the study:
1. Which factors influence the effectiveness of professional development programmes in Public secondary school in Arusha city?
2. What are the possible ways of improving the effects of professional development programmes offered in public school in Arusha city?

2. Literature Review

The theoretical and empirical literature was reviewed with reference to research questions. The study was based on Bacon's Theory of Performance of Teachers by Wallace Bacon in 2001.

2.1 Bacon's Theory of Performance of Teachers

This study was anchored on Bacon's Theory of Performance of Teachers which state that the teaching performance of the teachers depends on the instructional competence as reflected by the performance rating after training and professional development programmes. Teacher's performance evaluation plays a key role in educational personnel reform, so it has been an important yet difficult issue in educational reform(Bacon, 2001). The theory postulates that teachers who are well trained and are privileged with opportunities for continuous training exhibit better performance during evaluation stage.

2.1.1 Strengths of Bacon's Theory of Performance of Teachers

The theory agrees that there is a fair amount of influence on development generated by learned behaviour displayed in their performance after professional development programmes. An individual person is just as important in determining institution's performance for as long as he or

she is well trained. In this regard, the theory argues 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. Therefore, the knowledge of a teacher should be beyond the knowledge of a student to make her/his learning process effective.

2.1.2 Application of Bacon's Theory of Performance of Teachers

The theory is applicable to this study since it emphasizes that in-service teacher training aims to improve the quality of teaching among teachers as well as preparing new teachers so that they can carry out effective teaching and learning. Without this training, teachers may be obsolete, may not manage to cope with changes, and may thus lose their ability to work effectively and efficiently. It provides self- monitoring which is a step-by-step process of evaluation during the learning (Sanchez, 2023). Consequently, to have a motivated workforce, administrators in the school organization should determine which needs teachers are trying to satisfy and make sure that such teachers receive outcomes that satisfy their needs, especially when they perform at a high level and contribute to the organizational effectiveness.

2.2 Empirical Review

The researcher reviewed empirical studies with respect to research themes derived from research questions.
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2.2.1 Factors that Influence the Effectiveness of Professional Development Programmes in Public Secondary Schools

In the United States, a qualitative study conducted by Hillson (2019) on professional development initiatives designed for educators in public secondary schools have been shown efficacious in enhancing both teacher cognitive expertise and pedagogical aptitude, alongside augmenting the academic achievements of students. The study revealed that by allocating resources towards high-caliber professional development initiatives, educational institutions can effectively cultivate well-equipped educators who are proficient in catering to the varied demands of their students, thereby guaranteeing a superlative standard of instruction. Another study by Laurent and Rao (2018) pointed out that one notable determinant of the efficacy of professional development programmes in the United States is their emphasis on sustained learning and teacher collaboration. Numerous curricular initiatives underscore the significance of

collaborative efforts among educators in exchanging optimal techniques and acquiring knowledge from each other. Moreover, numerous educational programmess extend continual assistance and guidance to educators to ensure their proficient application of novel pedagogical approaches.

Kun et al., (2019) recount that the efficacy of PDPs targeted towards teachers, which operate in public secondary schools in China, has been demonstrated through their ability to enhance teacher knowledge and skills, with consequential improvements in student outcomes. Employing extant literature to collect data, the study suggests that the provision of top-notch professional development initiatives can enhance educators' comprehension of subject-specific content, pedagogical approaches, and methods of evaluating student learning. Consequently, such an outcome may result in enhanced involvement of students, increased academic accomplishments, and improved educational institution outcomes (Kunet al., 2019).A study conducted by Ojedokun et al. (2019) to determine the efficacy of instructional initiatives in India emphasized on teacher collaboration and continual education. Using a survey method with a sample of 1000 students, the study found numerous educational initiatives which underscore the significance of fostering collaborations between teachers, accompanied by the exchange of ideas regarding optimal protocols and the cultivation of an environment conducive to mutual learning. Furthermore, numerous educational programmes offer continuous support and mentoring to educators with the objective of ensuring their proficiency in executing novel instructional techniques.

In Nigeria, research by Jerram (2019)has evidenced that PDPs of superior caliber can enhance the comprehensive understanding of subject matter, instructional strategies, and methods of assessment among teachers. Conversely, such a phenomenon may yield favourable outcomes with regards to enhanced student involvement, scholarly prowess, and comprehensive institutional efficacy. Professional development initiatives devised for teachers employed in Indian public secondary schools have demonstrated effectiveness in enhancing teacher knowledge, skills, and student outcomes. According to scholarly research, the implementation of high-caliber professional development initiatives can yield substantial benefits in augmenting educators' comprehension of subject material, pedagogical tactics, and evaluation frameworks. Consequently, such outcomes can result in enhanced levels of student involvement, scholastic accomplishment, and holistic academic performance.

In Dar es Salaam, Tanzania, Mwabukojo (2019) conducted a study on contributing factors towards the effectiveness of professional development schemes with a focus on

technology-based solutions. Employing a descriptive survey research design, the study sampled 200 students from four senior secondary schools and utilized a Likert scale survey to gather data. Findings indicated a high prevalence in numerous educational initiatives that should be embraced in the implementation of technology-based educational resources. These include online courses, to equip educators with the requisite pedagogical skills. This approach has garnered significant attention, particularly within regions where access to conventional teacher training is restrained, thereby enhancing the quality of education imparted.

2.2.2 Possible ways of Improving the Effectiveness of Professional Development Programmes Offered in Public Schools

According to Gregory (2022), in India and China, professional development initiatives have demonstrated a significant impact on teacher performance in the public education sector. This type of programme enables teachers to immerse themselves in diverse educational settings, facilitating observation of alternate teaching approaches and application of novel practices. The aforementioned could potentially facilitate educators in acquiring novel perspectives and concepts that can be implemented within their respective instructional settings. Wasserman (2019) in a study conducted in USA reported different approaches to professional development programmes through the application of technology. Employing a mixed-methods research design, the study surveyed 306 secondary schools. According to the findings, the implementation of technology, including learning management systems and educational applications, is commonly utilized by American educational institutions to bolster student learning capacities. Moreover, educators are appropriately trained in utilizing these advanced tools for the optimal delivery of instructional content.

Research by Bremner et al. (2023) was conducted to describe some aspects of the PDPs for teachers in UK and recent work to evaluate the provision of programmes in the country with a view to informing developments in future in-service programmes. During the last 30 years, there have been no elaborate teacher training programmes to upgrade teachers' skills and competencies, in either government or private schools. However, there have been limited training programmes to upgrade some of the teachers in the UNRWA schools in recent years. To address this problem, the Higher Education Council in UK conducted the first national in-service teacher training programme to upgrade a group of teachers from different districts, levels of schools and specialist areas.

Rauch et al. (2023) in London observed that in-service for all teachers is supported by changes in curriculum, new media, new technologies and a changing social content. It is important that syllabuses and the training techniques be adequate and relevant to keep the teachers address their job challenges more confidently and competently (Hove, 2019).Hodgson and Whalley (2019) in their study conducted in London have argued that in evaluating the effectiveness of in-service education one should include the purpose of the course and indicate the direct evidence of developments which subsequently occur in the school. The study found that to improve in-service training there should be a theory, a model of teaching, to be practiced in a simulated classroom setting, structured and open-ended feedback and strategies to coach the application of what had been learned. It is important as Bremner et al. (2023) has emphasized in New York that in-service teacher programmes should lead to solving educational challenges, through the use of new learning skills. The study advocated for the best methods, models, times, conditions and environments in which to carry out in-service teacher training programmes in order to change teachers' attitudes and behavior positively.

In Nigeria, Asanga et al. (2023) examined the implementation of collaborative learning initiatives, which facilitate teacher cooperation and the exchange of optimal techniques that may yield greater efficacy in the enhancement of teacher proficiency and expertise. In-service training programmes, which offer teacher training during regular school hours, have been observed to possess a higher degree of feasibility and efficacy in enhancing teacher performance (Naidoo, 2019).

According to Nguyen et al.(2020), there are five approaches used to teach science subjects which are constructivist approach, collaborative approach, integrative approach, inquiry approach and reflective approach. In teaching female student science subjects, the approaches suggested are be applied. The Tanzanian curriculum emphases the use of competence-based approach that is inquiry approaches (learner centred approach) since it is activity oriented (URT, 2018). Learners centred approaches (sometimes referred to as discovery learning, inductive learning, or inquiry learning) place a much stronger emphasis on the learner's role in the learning process. Learners are encouraged to ask a lot of questions in inquiry based teaching. The study found that with effective in-service training, teachers would achieve the best teaching and learning methods. In a study carried out in Dar es Salaam, motivation, according to Murkatik (2020), customized professional development initiatives are aimed at enhancing the pedagogical expertise and competencies of educators in public schools. By making a strategic investment in premium professional development programmes and offering sustained assistance and

mentorship to educators, educational institutions can ensure that their instructional staff possesses the knowledge and skills necessary to effectively address the diverse needs of their learners and deliver a superior standard of education.

3. Methodology

Convergent mixed methods design was adopted. The study targeted a population of 1962 (850 teachers, 35 school heads, 27 WEOs & 1 DSEO) in 35 secondary schools. The statistical formula devised by Daniel (1999) was used in determining the sample size as follows:

$$n = \frac{NZ^2 P (1-P)}{D^2 (N-1) + Z^2 P (1-P)}$$

Whereby;

n= required sample size

N= The population size

Z= Statistics for the level of confidence (1.96)

P = Estimate population features target population (0.5)

D= Accuracy expressed as a proportion (0.05)

$$n = \frac{913 (1.96)2 \; 0.5 (1-0.5)}{(0.05)2 (913-1)+(1.96)2 \; 0.5 (1-0.5)}$$

$$n = \frac{913 (3.8416) \; 0.5 (0.5)}{0.0025 (912)+(3.8416) \; 0.5 (0.5)}$$

$$n = \frac{3507.3808 (0.25)}{2.28+0.9604}$$

$$n = \frac{876.8452}{3.2404}$$

$$n = 270.598$$

Sample Size (n) ≈ 271

Therefore, the sample size was 271 respondents.

Sample size consisting of 271 respondents included; 255 teachers, 9 school heads, 6 WEOs and 1 DSEO. Teachers were selected through stratified and simple random sampling techniques while school heads, 6 WEOs & 1 DSEO were purposively sampled. Gender formed the basis

of strata for selecting teachers. Data collection was done through questionnaires and interview guide. Validity was established through expert judgment whereas reliability was determined using Cronbach's Alpha method and reliability index, TQ; r=0.723. Credibility & dependability of qualitative data was established through triangulation and detailed reporting of the research process. Descriptive statistics was used to analyses quantitative data in the SPSS version 25 and results were presented in tables, while qualitative data were analyzed thematically alongside the research questions and presented in narrative forms.

Respondents were assured of confidentiality and privacy of whatever information that they provided. This means that the information collected were used for the purpose of this study only. Similarly, the recording of the interviews was done with the consent of the respondents. Finally, all the sources of information were dully acknowledged.

4. Results and Discussion

The findings were discussed according to the research questions

4.1 Quantitative Findings on the Factors that influence the Effectiveness of Professional Development Programmes in Public Secondary Schools in Arusha City

The question sought to examine factors that influence effectiveness of PDPs in public secondary schools in Arusha city. Questionnaires were administered to teachers who were required to agree or disagree with the items which were in the questionnaire. Table 1 presents the summary of the respondents' responses and the quantitative data on the factors that influence effectiveness of professional development programmes in Public secondary schools.

Table 1: Responses from Teachers on factors that influence the Effectiveness of Professional Development Programmes in public secondary schools in Arusha City (n=255)

	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		
	f	%	f	%	f	%	f	%	f	%	Mean
Market demand (Teachers needs)	130	51.00	27	10.6	96	37.60	1	0.40	1	0.40	4.11
Favourable education Policies	109	42.70	106	41.60	6	2.40	0	0.00	34	13.30	4.00
Availability of teaching learning resources	37	14.50	3	1.20	0	0.00	185	72.50	30	11.80	3.99
Working environment	186	72.90	3	1.20	0	0.00	8	3.10	58	22.70	3.98
Subject competency	139	54.50	0	0.00	2	0.80	14	5.50	100	39.20	3.25
Adequate budget allocation	39	15.30	1	0.40	184	72.20	7	2.70	24	9.40	3.09
Need for adequate staffing	3	1.20	4	1.60	102	40.00	27	10.60	119	46.70	3.00
Politics support	6	2.40	95	37.30	6	2.40	118	46.30	30	11.80	2.83
Personal drive	13	5.10	118	46.30	22	8.60	6	2.40	96	37.60	2.79
Need for students' discipline	121	47.50	28	11.00	99	38.80	0	0.00	7	2.70	2.01
Social and cultural practices	35	13.70	0	0.00	28	11.00	5	2.00	187	73.30	1.79
Average mean score											**3.17**

Source (field data, 2024)

Table 1 identifies market demand with a mean score of 4.11as one of the highly placed factor that influence effectiveness of PDPs in public secondary schools. This implies that teachers perceive market demand as the most influential factor, indicating the need for professional development programmes that align with current job market requirements. Market demand significantly influences the relevance and applicability of PDPs. In this regard, Desimone et al. (2023) emphasized that aligning professional development with market demands ensures that teachers are equipped with skills that are relevant and in high demand, thereby improving their teaching effectiveness.

Another factor with a mean score of 4.00 that influences effectiveness of PDPs in public secondary schools is favourable education policies. Supportive educational

policies are critical for the success of PDPs. Such policies can provide the necessary framework and resources for implementation. Supportive education policies create an enabling environment for effective professional development. While in agreement, Darling-Hammond et al. (2022) found that policies promoting continuous professional development and providing necessary resources contribute to the success of PDPs. To buttress this finding, the Organisation for Economic Co-operation and Development (OECD) (2019) asserts that countries with strong education policies that support continuous professional development see better educational outcomes.

Likewise, availability of teaching-learning resources with a mean score of 3.99 was identified as a factor that influences effectiveness of PDPs in public secondary schools. The availability of resources significantly impacts

the effectiveness of professional development, enabling teachers to access necessary materials and tools. The availability of adequate teaching and learning resources is crucial for the success of PDPs. Garet et al. (2023) concured but also observed that access to resources such as instructional materials, technology, and training facilities enhanced the quality and impact of PDPs.

Working environment recorded a mean score of 3.98 which was above an average mean score of 3.17. This shows that a positive working environment fosters teacher motivation and engagement in PDPs. the finding is supported by Jones and Jones (2023) who highlighted that a supportive and collaborative school culture encourages teachers to actively participate in and benefit from PDPs. Research by Killion (2023) suggests that a supportive and collaborative school culture is essential for effective professional development.

In addition, the descriptive statistics in table 1 show that subject competency with a mean score of 3.25that is above an average mean score of 3.17 was also found as a factor that influence effectiveness of PDPs in public secondary schools in Arusha city. The study found out that PDPs should focus on enhancing subject-specific knowledge to improve teaching efficacy. Teachers' subject competency plays a significant role in the effectiveness of professional development. A related finding by Guskey and Yoon (2023) noted that PDPs aimed at enhancing subject-specific knowledge and skills that lead to improved instructional practices and student outcomes. A study by Garet et al. (2001) added that professional development focused on content knowledge significantly impacts teacher performance and student achievement

Another factor is adequate budget allocation with a mean score of 3.09. Sufficient funding is necessary to support comprehensive professional development initiatives. By implication, sufficient funding is essential for the successful implementation of PDPs. While lending credence to this finding, Lawless and Pellegrino (2023) found that inadequate budget allocation limits the scope and quality of PDPs, affecting their overall effectiveness. Similarly, the Learning Policy Institute (2019) reported that adequate budget allocation for professional development is crucial for sustained teacher growth and improved educational outcomes.

The need for adequate staffing posted a mean score of 3.00 in table 1. This implies that adequate staffing ensures that teachers can participate in professional development without compromising their teaching responsibilities. in support and as reported by Ingersoll and Strong (2023) who pointed out that understaffed schools struggle to release teachers for training, hindering the effectiveness of PDPs.

Schools with better staffing levels are more likely to implement effective PDPs.

Moreover, political support with a mean score of 2.83 which is below the average mean score of 3.17 was also identified as a factor that influences effectiveness of PDPs in public secondary schools. In this regard, the researcher noted that political backing can facilitate the implementation of professional development policies and secure necessary resources. Political support can influence the prioritization and funding of professional development initiatives. However, as Tomlinson et al. (2023) noted, lack of consistent political support can lead to fluctuations in policy and funding, impacting the continuity and effectiveness of PDPs. Political support can enhance the scale and sustainability of PDPs.

Table 1 illustrates that personal drive with a mean score of2.79 as another factor that influence effectiveness of PDPs in public secondary schools in Arusha city. Individual motivation and commitment play a role in the effectiveness of professional development. Teachers' personal motivation and commitment to professional growth are critical for the success of PDPs. Borko (2022) weighs in by emphasizing that intrinsic motivation drives teachers to actively engage in and apply what they learn from professional development.

Another factor mentioned is the need for students' discipline with a mean score of2.01. Although it is equally important, student discipline is perceived to have a lower impact on the effectiveness of PDPs. While important, students' discipline has a less direct impact on the effectiveness of professional development programs. However, Vescioet al. (2023) supported the finding but also suggested that, disciplined students create a conducive learning environment that allows teachers to implement new strategies more effectively.

During interviews and while responding to factors that influence effectiveness of professional development programs in Public secondary school in Arusha city, an education administrator observed that;

> *The effectiveness of professional development programs (PDPs) in public secondary schools is shaped by various factors. First, there is a need to create a supportive and collaborative school culture that encourages teacher participation in professional development. These includes market demand, favorable education policies, availability of resources, good working environment, subject competency, budget allocation, staffing, political support, personal drive, student discipline, and social and cultural*

practices. There implementation is necessary in highlighting areas for improvement(Personal interview, 4th July, 2024).

The response underscores the necessity for PDPsto be aligned with current market demands to enhance their relevance and applicability. This shows that professional development programmes (PDPs) are essential for the continuous growth and effectiveness of teachers in public schools.

4.2 Quantitative Findings on Possible ways of Improving the Effectiveness of Professional Development Programmes Offered in Public Schools

The question determined the possible ways of improving the effectiveness of PDPs offered in public schools in Arusha city. Questionnaires were administered to teachers who were required to agree or disagree with the items 1 to 12 which were in the questionnaire. A five point likert scale whereby 1= Strongly Disagree, 2 = Disagree, 3 = Neutral, 4= Agree, 5= Strongly Agree was used. Table 2 gives the summary of quantitative data from teachers.

Table 2: The Responses from Teachers on Possible ways of Improving the Effectiveness of Professional Development Programmes Offered in Public Schools (n=255)

	Strongly Agree		Agree		Undecided		Disagree		Strongly Disagree		
	f	%	f	%	f	%	f	%	f	%	Mean
Allocating more resources to education	139	54.50	100	39.20	2	0.80	14	5.50	0	0.00	4.47
Continuous improvement & development of education	137	53.70	100	39.20	6	2.40	2	0.80	10	3.90	4.38
Political support	100	39.20	149	58.40	5	2.00	1	0.40	0	0.00	4.36
Effective supervision of curriculum implementation	125	49.00	96	37.60	26	10.20	5	2.00	3	1.20	4.31
Offering short courses in relevant subjects	91	35.70	151	59.20	0	0.00	3	1.20	10	3.90	4.26
Frequent school visitation by SQAOs team	123	48.20	107	42.00	2	0.80	1	0.40	22	8.60	4.21
Motivating teachers through incentives	10	3.90	216	84.70	7	2.70	21	8.20	1	0.40	3.83
Review of curriculum to be relevant to market demand	93	36.50	32	12.50	100	39.20	7	2.70	23	9.00	3.65
Support from parents and community	29	11.40	112	43.90	97	38.00	13	5.10	4	1.60	3.58
Encouraging teachers commitment to their work	52	20.40	5	2.00	194	76.10	1	0.40	3	1.20	3.40
Average mean score											**4.04**

Source (field data, 2024)

Allocating more resources to education recorded a mean score of 4.47. In terms of rating, 54.50% of the respondents strongly agreed, 39.20% agreed, and 0.80% were undecided while 5.50% disagreed. Teachers believe that increasing the allocation of resources to education is the most critical way to enhance PDPs. Allocating sufficient resources is crucial for effective PDPs. Garet et al. (2023) advanced a positive report in this regard but further mentioned that a well-funded professional development initiatives provide better training materials, experienced trainers, and necessary infrastructure, leading to higher programme quality and teacher satisfaction. Recent studies, such as those by the Learning Policy Institute (2017), confirm that adequate resources are fundamental for effective professional development, enabling access to necessary materials, training opportunities, and support structures.

Regarding continuous improvement and development of education, it was mentioned as a possible way of improving the effectiveness of professional development programmes offered in public schools in Arusha city with a mean score of 4.38. The percentage approval indicated that 53.70% of the respondents strongly agreed, 39.20% agreed, and 2.40% were undecided while 3.90% strongly disagreed. This clearly shows that ongoing improvement and innovation in educational practices are essential for maintaining the relevance and effectiveness of professional development. Political support is vital for the sustainability of PDPs. The finding by Darling-Hammond et al. (2022) is in line with this result. The study argued that government backing often leads to better funding, policy support, and prioritization of teacher development initiatives. Continuous professional learning is crucial for adapting to new educational demands and improving teaching quality.

Political support with a mean score of 4.36 was another possible way of improving the effectiveness of PDPs offered in public schools in Arusha city.In terms of rating, 39.20% of the respondents strongly agreed, 58.40% agreed, and 2.00% were undecided while 0.40% disagreed. Political backing is seen as vital for the successful implementation and sustainability of professional development initiatives. Effective supervision ensures that the curriculum is implemented as intended. Guskey and Yoon (2023) agree but also noted that regular monitoring and feedback by supervisors help teachers stay aligned with curriculum goals and adopt best practices in instruction.

In addition, effective supervision of curriculum implementation was identified as another possible measure with a mean of 4.31. In terms of rating, 49.00% of the respondents strongly agreed, 37.60% agreed, and 10.20% were undecided while 2.00% disagreed. Ensuring that curriculum implementation is effectively supervised helps maintain high standards and consistency in teaching practices. Effective supervision ensures that the curriculum is implemented as intended. With approval rating of 35.70% of the respondents who strongly agreed, 59.20% agreed, and3.90% strongly disagreed, teachers reported that offering short courses in relevant subjects is a possible way of improving the effectiveness of professional development programmes offered in public schools. The measure posted a mean score 4.26, Short, focused courses on relevant subjects can enhance teachers' knowledge and skills in specific areas, making professional development more impactful. Short, focused courses can address specific teacher needs and gaps in knowledge. In this respect, Borko (2022) highlighted that short courses in emerging subjects or pedagogical techniques allow teachers to quickly adapt to new trends and improve their classroom effectiveness.

Frequent school visitation by SQAOs team with a mean score of 4.21 is another possible way of improving the effectiveness of PDPs offered in public schools. In terms of rating, 48.20% of the respondents strongly agreed, 42.00% agreed, and only 0.80% were undecided while 8.60% strongly disagreed. From the respondents, the researcher found that regular visits from School Quality Assurance Officers (SQAOs) provide ongoing support and ensure adherence to educational standards. Regular visits by School Quality Assurance Officers (SQAOs) provide external support and accountability. While in support, Ingersoll and Strong (2023) found that frequent school visits help identify areas for improvement and provide timely support to teachers.

During the interviews on possible ways of improving the effectiveness of professional development programmes offered in public schools in Arusha city, one school head remarked that;

> *The effectiveness of professional development programmes in public schools can be significantly enhanced by implementing robust supervision mechanisms to ensure proper curriculum implementation and provide regular feedback to teachers. There is need to increase the frequency of school visits by SQAOs to offer timely support and accountability. This visit will also cultivate a sense of purpose and dedication among teachers to enhance their engagement in professional development* (Personal Interview, 29th June, 2024).

The response signifies that continuous PDPs significantly improves teachers' instructional methods and student outcomes. Similarly, there is need to foster strong relationships with parents and the community to create a supportive environment for teachers that will help in

improving the effectiveness of professional development programmes offered in public schools in Arusha city. Ochieng (2022) concurs while researching in Kenya on professional development for enhancing instructional leadership found that professional development focusing on instructional leadership significantly improves teachers' leadership skills and student performance.

5. Conclusion and Recommendations

5.1 Conclusion

Based on the findings of the current study, the following conclusions were drawn:

The findings on factors influencing the effectiveness of PDPs in public secondary schools reveal a diverse set of influences. Market demand and favourable education policies are seen as the most impactful, highlighting the need for alignment with industry requirements and supportive policy frameworks. Availability of teaching-learning resources and a positive working environment also play significant roles, ensuring that teachers have access to the necessary tools and conducive conditions for professional growth. Subject competency and adequate budget allocation are important but perceived as less critical, suggesting areas for targeted improvement. The need for adequate staffing, political support, and personal drive show moderate impact, indicating that systemic and individual factors both contribute to professional development effectiveness. Finally, student discipline and social and cultural practices are seen as less influential, though still relevant.

Also, the study established that the effectiveness of PDPs in public schools can be significantly enhanced by allocating more resources, promoting continuous improvement, securing political support, ensuring effective supervision and offering relevant short courses. Other measure include conducting frequent school visits by SQAOs, motivating teachers through incentives, updating the curriculum, gaining support from parents and the community, and encouraging teachers' commitment. The grand mean score of 4.04 indicates a generally high level of perceived effectiveness of these strategies in improving professional development programmes.

5.2 Recommendations

Based on the study conclusion, the following recommendations were made;
1. Curriculum developers in the ministry of education science and technology (MoEST) should design PDPs that emphasize enhancing

subject-specific knowledge to improve teaching effectiveness.
2. The government through the MoEST should ensure adequate funding is allocated to professional development initiatives to support comprehensive and sustained teacher growth.
3. Policymakers from the MoEST should integrate strategies for improving student discipline and culturally responsive teaching practices into PDPs. The strategies may also include introducing financial and non-financial incentives to motivate teachers to participate in professional development
4. Quality Assurance officers should implement robust supervision mechanisms to ensure proper curriculum implementation and provide regular feedback to teachers. Cultivate a sense of purpose and dedication among teachers to enhance their engagement in professional development.

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