Relationship Between Teachers' Training and use of Portfolio Assessment to Measure Children's Learning in Bungoma County, Kenya.

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ABSTRACT

Portfolio assessment was identified as an effective strategy to monitor the performance of learners in the competency-based learning (CBC) system. While previous research has focused to a large extent on the general implementation of CBC, this study aimed to establish the relationship between teacher training and the use of portfolio assessments. The study also sought to identify training strategies to support optimal portfolio valuation. The study used a correlation design. Questionnaires and interviews were used to collect data from teachers and parents of grade three learners. The study found a strong correlation between teacher training and portfolio use. Teachers, however, claimed that training was carried out in a hurry and that the methods used were primarily focused on the trainer. The study recommends that adequate time for training and more hands-on experience be devoted to demonstrating their competences

Keywords: Portfolio Assessment, learning, teachers' training.

INTRODUCTION

According to Peters, Hartley, Rogers, Smith and Carr (2014), portfolio assessments are based on documentation of children's work that has been collected and maintained and should show their educational progress. A common model or framework should therefore be used to help the portfolio reflect the learning process of the child, rather than just the collection and accumulation of information. Otherwise, the procedure is invalidated and wastes time if the items are collected in a disorderly manner and without a proper structure. Tshabalala and Ndimande (2016) examined the portfolio as a compilation of materials and information, a reflection paper describing student learning practices, a student achievement record and a record of the extent and scope of teaching and learning activities. Muganda and Kabate (2016) argue that a student's portfolio is an organized collection of his or her work and related resources, demonstrating his or her achievements an in one or more academic subjects. Portfolio assessment is widely recognized as one of the most important formative assessment techniques.

The Competence Based Assessment Framework (CBAF) in Kenya, as foreseen in the Framework for Basic Education (2019), is a shift away from tests and towards alternative forms of assessment. This paradigm strongly encourages the use of transformative assessment techniques, such as portfolio assessment. Unlike pen-and-paper tests, which encourage unhealthy competition, corruption and cheating, competence-based assessment tools are legitimate and comprehensive, and the Presidential Working Group on Education Reform in Kenya (PwPER, 2023) strongly supports their use. The Kenya National Examination Council (KNEC) defines portfolio assessment as a coherent collection of target statements, work samples and self-assessments

that demonstrate the learning process. The portfolio assessment process involves: the decision on which learning objectives should be assessed by using the portfolio; the involvement of learners, starting with a proper introduction to the concept in class; the selection of portfolio content; the presentation and reflection of the portfolio; and finally, the involvement of stakeholders (KNEC, 2021).

According to Eren (2007), portfolio assessment is a form of real evaluation which supports development over time and is process-driven. It takes into account how children learn and their specific characteristics. Rather than focusing on intellectual ability as traditional pen-and-paper tests do, it is a celebration of children's lives and achievements. This allows teachers and students to reflect on a child's development in all areas by looking back. Eren (2007) also found that teachers can assess the individual learning preferences of each student using portfolios. The increased possibility of consulting parents on their children's academic progress has also been taken into account. Portfolio assessment is also preferable, according to Ugodulwa and Wakjissa (2015), as it allows easy linking of the results of the assessments to the intended learning outcomes. According to the study, portfolios helped students perform better on placement tests. According to research by Priscah et al. (2016) in Kenya, the use of portfolios promotes student autonomy, individuality and self-management. According to Muiruri (2020), portfolio assessments should be accredited by the prestigious

Relationship between Teachers' Training and Portfolio Assessment

Adequate teacher training is essential to move from traditional paper-based assessments to a more authentic and comprehensive assessment (Isaboke, 2021). This is because teachers are at the heart of the implementation of educational curriculum and must have the necessary skills and knowledge to create a favorable learning environment (Zeiger, 2018, Isaboke, 2021). Successful teaching in schools requires that teachers have the necessary pedagogical skills. Consequently, teacher training is a key element in the successful implementation of new curricula, either fully or partially. In the light of the present study, the training should focus on measuring the learning outcomes of children in pre-primary education through portfolio assessments. Teachers should be trained in all aspects of portfolio assessment, including how to create a portfolio, create rubrics, grade the different items in the portfolio and involve parents and students. In addition, they must receive training on communicating and understanding the results of portfolio assessments. Syomwene (2017) notes that teachers must be aware of their important role in creating a link between the curriculum and students throughout the entire learning and assessment process. They want reliable knowledge and skills to plan and execute realistic portfolios as a tool for rating learning.

Related literature clearly shows that teacher training improves the capacity of teachers to implement new curricula. For example, research carried out by Mokua (2010) in South Africa found that teachers are crucial for the implementation of the curriculum. The study therefore recommended that instructors be trained in all aspects of the new curriculum, including the use of new assessment methods, in order to successfully meet the educational objectives of South Africa. Molapo (2018) in Isaboke (2021) did a study on the introduction of a new curriculum by teachers in primary schools in Limpopo. The study found that most teachers lacked the necessary skills and understanding to implement the curriculum. This means that the adoption of the new curriculum is hindered if teachers are not adequately trained. In portfolio assessment, a feature of the recently introduced curricula, teachers will face difficulties in creating appropriate portfolios., which will lead to inaccurate information about the progress of students. The aim of the study carried out in Cameron by Ambei and Kim (2018) in Isaboke (2021) was to determine the extent to which teachers in primary schools implement CBC. The investigation revealed that the CBC was not known to the teachers. It was shocking to learn that even those with training failed to follow the instructions properly. These results suggest that these teachers may not be able to carry out a thorough portfolio assessment

Hadwe and Mpofu (2017) examined the readiness of Zimbabwean teachers to use the recently introduced grade three curriculum. They looked at how well primary school teachers could develop lesson plans to supplement a new curriculum. It was clear that the training provided to the instructors was not sufficient to enable them to develop new curricula that were in line with the curriculum. The Education Ministry should therefore set up rapid training courses to fill the knowledge gap among teachers. In addition to lesson planning, teachers should be taught about formative assessment using different techniques, such as portfolios. Zhuwale and Shumba (2017) found that the lack of teacher understanding of how to incorporate the curriculum elements

in Zimbabwe is a major obstacle to smooth implementation of the curriculum. Consequently, training plays a key role in integrating curriculum elements such as portfolios and other effective assessment methods.

According to Isaboke (2021), Sabola (2017) examined the level of training of teachers in Malawi to facilitate the introduction of a new primary school curriculum. The study aimed to see if Malawian teachers could develop appropriate assessment tools to suit the country's new curricula. The results of the study show that the lack of relevant training for instructors has led to very little implementation of the curriculum. Teachers continued to use outdated assessment techniques, such as pencil and paper tests, due to a lack of training. They could not use formative assessment techniques such as the use of portfolios. This means that it is essential that teachers are trained in the recommended use of portfolio assessments in the new competency-based curriculum (CBC).

Paulo (2014) argued that teacher training influences teachers' ability to follow the learning processes in the curriculum in a study on teacher preparedness for CBC in Tanzanian secondary schools. Teachers in pre-service training were not trained in new assessment techniques or how to prepare lesson plans that comply with the CBC. As a result, they continued to evaluate students using obsolete pencil and paper tests. According to further reports by Maatana and Wendit (2019) in Isaboke (2021), continuous teacher training is a precondition for successful implementation of the new study programmes.

The ability of teachers to carry out assessments is severely affected by insufficient training in the new curriculum, as confirmed by the Isaboke (2021) study by Komba and Mwindaji (2015) which examined whether Tanzanian teachers use formative assessment in line with CBC recommendations. Less than 50 percent of the observed class sessions included formative assessment, which includes portfolio assessment. The study therefore suggests that teachers should be regularly trained to provide the skills needed for formative assessment. Makunja (2018) carried out a study in Tanzania to identify difficulties encountered by instructors when using the formative assessment in CBC. It was found that teachers lack sufficient understanding of how to integrate the instructional components of the new curriculum.

Kangori (2014) stressed the importance of teacher professional development for successful implementation of the programme. The study found that teacher professional development had an impact on the implementation of nursery school curricula, and examined the impact of nursery teacher training and professional development on the implementation of the science curriculum in Nairobi County. The key proposal was therefore continuous training through the in-service programmes. In a 2017 study, Kemboi and Nabwire examined the pedagogical competencies of teachers working in classrooms. The findings of the investigation showed that a large number of teachers lack learner-centred teaching techniques. This may be a prediction for limited learner-oriented assessment techniques, such as portfolio valuation.

Ondimu (2018) examined the readiness of teachers to apply competence-based learning in a private school in the Dagoreti North sub-region of Nairobi County. Data for the study were collected through interview schedules and a questionnaire that was a descriptive survey. The study found that kindergarten teachers had difficulties in developing a curriculum template. Most teachers did not receive training in the implementation of the CBC. In a similar vein, Kisirkoi and Kamanga carried out a survey to determine how prepared the teachers in the primary schools in Narok County were to use the CBC. According to 86.7 percent of instructors surveyed, who included 15 teachers in lower primary education, they learned nothing from CBC training. Therefore, they considered themselves ill-prepared for the use of the CBC assessment tools.

Abdullahi (2020) looked on how school-related variables affected the use of CBC in Kenya's Garissa Sub-County preschools. It was clear from the descriptive analysis that most public pre-primary teachers had not participated in any training related to the implementation of the new curriculum. As a result, a lot of teachers expressed difficulty figuring out how to implement CBC. In a follow-up study, Chemagosi (2020) examined the readiness of lower primary school teachers in Kilifi and Nandi County for the implementation of the CBC. The study indicates that teacher readiness has a major impact on CBC implementation.

Following an assessment of the head teachers' needs for supervision training related to learners' assessments in Bungoma County, Omusoga (2019) found that head teachers needed training on learners' assessments. It was

discovered that their design and implementation of assessment instruments were inadequate. There is limited information available about how teacher training affects portfolio assessment, despite sufficient research demonstrating a beneficial relationship between curriculum implementation training and teacher training.

Training Strategies for Optimum use of Portfolio Assessment

When professional training is implemented according to a well-thought-out plan with specific objectives, exercises, and resources, teachers stand to gain the most. The methods used in the training should be suitable for the participants' needs. Andragogy is a more effective method of knowledge acquisition for adult learners. According to this theory, adults learn more from their experiences and have a better degree of self-development (Omar 2014).

Every training method used should therefore be suitable for the participants' abilities, goals, and subject matter. Teachers' skills, knowledge, and positive attitudes should all be enhanced and encompassed by the curriculum. The success of the training will depend on the materials and media used, so it is important to regularly assess these resources to make sure they are still appropriate, (Omar, 2014).

Hafeez (2021) carried out research to assess how teacher preparation affects students' academic performance. The academic accomplishment of secondary school students in a computer course was evaluated using lecture, discussion, inquiry, and demonstration teaching methods. Pre- and post-scores were obtained for each teaching style. After one week of instruction, the results demonstrated a significant increase in the learners' post-test scores for each teaching strategy. Due to the students' academic success, the demonstration approach was ranked first while the lecture method was ranked last.

According to a study by Sexton and Garner (2020), training methods such as debate, inquiry, and demonstration are superior to lecturer methods, particularly when working with adult learners. All three techniques are determined to be a part of the andragogy teaching strategy. The lecture technique involves an instructor speaking uninterrupted before a group of students receiving instruction on a certain topic (Hafeez et al., 2021). The trainer will keep talking to participants as they are being trained by the portfolio in use by teachers. This indicates that the individuals involved are passive rather than active learners. Students find this training approach uninteresting.

A discussion technique is an instructional approach where students and teachers exchange opinions about a certain subject. Discussions allow students to engage with the instructor in a relaxed setting to ensure that they fully grasp the material, according to Paul et al. (2019). During the presentation, learners pay close attention to the lecture while the trainer assumes the role of a principal. This type of instruction is called the presentation or demonstration technique. According to Teodora-Mihaela & Laurentiu-Gabriel (2014) and Vrbik & Vrbik (2017) in Hafeez (2021), it is an appropriate way of teaching teachers and comprises steps that demonstrate how various things work. According to studies conducted in Hafeez (2021) by Basheer et al. (2017) and Polizzotto & Tamari (2015), the demonstration approach also benefits trainees and raises their degree of cooperative learning. Another name for the inquiry approach is the discovery method. According to Shamsudin et al. (2013), it is a process used in Hafeez (2021) to comprehend fundamental concepts through experimentation, observation, and study. Research by Hafeez (2021) showed that this training approach improved trainees' critical thinking abilities and improved students' creative thinking.

In Delta State, Nigeria, Precious and Feyisetan (2020) found that learner-centered approaches to instruction boost students' academic attainment more than teacher-centered approaches do. The study found that while lectures are less successful for teaching biology, field trips, discussions, and other participatory techniques are. This is consistent with previous research by Audu (2018), who discovered a substantial difference in the mean achievement score between students taught biology using student-centered and teacher-centered teaching methods, with the learners taught using learner-centered methods scoring higher. According to Stols, Kriek, and Ogbonnaya (2008), student achievement in Lesotho is positively correlated with teacher-guided discussions, group projects, and homework.

Teaching strategies have a beneficial impact on students' performance, according to Christine, Billiah, and Jared's (2019) research. In previous research, Mihindo, Wachanga, and Anditi (2017) discovered a statistically significant difference between the chemistry achievement of students taught using a computer-based simulation technique and that of students taught using a traditional teaching method. The comprehension of chemistry topics and principles has been positively and significantly impacted by computer-based simulations. According to a different study, students who received instruction based on inquiry-based theory (IBT) demonstrated greater physics achievement (Njoroge, Changeiywo, & Ndirangu, 2014). The current study sought to find out whether the methods used to train teachers were trainee centered or trainer centered.

Objectives of the Study

The study objectives were:

i. To find out the relationship between teachers' professional training and use of portfolio assessment to measure children's learning in early years and to,

ii. To identify teacher training strategies that promote optimum use of portfolio assessment to measure children's learning.

METHODOLOGY

Research Design

The study employed a correlational design and used both qualitative and quantitative data analysis procedures. The study examined the relationship between teacher training in CBC and use of portfolio assessment in Bungoma County

Sampling Techniques

Through purposive sampling, three sub-counties, namely Bungoma West, Bungoma Central, and Bungoma North, were selected for the study. Simple random sampling was utilized to select a total of eighty (80) grade three teachers to participate in the study.

Data Collection Techniques

A teacher's questionnaire was used to collect data on their training and use of portfolio assessment. The questionnaire was divided into sections A, B, and C. Section A collected demographic data that included gender, school type, age, and teaching experience. Section B collected data on teachers' use of portfolio assessment on a four-point Likert scale. The facets were in relation to five steps of portfolio assessment, namely: setting learning goals to assess through a portfolio; sharing the portfolio idea in class; deciding on portfolio contents; portfolio presentation; and involving other stakeholders. Section C collected data on the teachers' portfolio assessment training on a four-point Likert scale. They graded their level of satisfaction according to the training in the five steps of portfolio assessment.

In order to triangulate and supplement inferential statistics, interview schedules were employed to gather data from teachers. The interviews aimed to explore the reasons behind portfolio assessment and its implementation, the various types of portfolios, and the involvement of learners and parents in the portfolio assessment process, among other aspects.

The retest approach was employed to establish reliability of the instruments, with the same people being tested twice in a span of two weeks. Questionnaire and interview schedules were re-administered after two weeks. Pearson Product Moment The correlation coefficient was used to test the consistency. A correlation coefficient of 0.74 was obtained. Mugenda and Mugenda (1999) suggest a correlation coefficient of 0.6 for such studies as acceptable; thus, the above coefficient correlation was considered adequate.

The researcher visited schools during the morning hours, identified the sampled teachers, and sought their informed consent. Before questionnaire administration, teachers were inducted on how to fill out the questionnaires, and the time to be spent on the exercise was agreed upon. The researcher collected the questionnaire, having ensured that every item was filled. This session was followed by a one-on-one interview. During interviews, every respondent was given enough time to respond to each question. Information was collected using a voice recorder with the consent of each respondent. Afterwards, the recorded responses were transcribed.

Data Analysis

Quantitative data from questionnaires were sorted out, cleaned, and then entered into SPSS software version 22.0. Descriptive statistics were useful in analyzing the demographic data of the participants. In order to find out the relationship between teachers' training and use of portfolio assessment, Pearson moment correlation was calculated.

Ethical Considerations

All participants' informed consent was sought by filling out a consent form. Therefore, no participant was forced to take part in the study. Participants were assured that their responses would be kept private. The participants were identified using codes instead of names, especially when identifying interview citations. Throughout the study, each participant's privacy was respected. The anonymity of each reply helped to ensure this. Respondents were given the freedom to refuse to answer a question (if they so desired) and to choose any information they did not wish to provide.

FINDINGS

Teachers' Training and Use of Portfolio Assessment to Measure Children's Learning in Early Years

Objective one sought to find out the relationship between teachers' training and use of portfolio assessment to measure children's learning in early years. To achieve this, scores on teachers' ratings of the training were obtained. Later, teachers score in training were correlated with scores in the use of portfolios using Pearson moment correlation. Table 1 presents mean scores in teachers' training on how to use portfolio assessment to measure children's learning by school type.

Table 1: Individual Mean Scores on Teachers' Training on Use Portfolio Assessment to Measure Children's learning by Type of School

	Public			Private		
	N	Mean	Std. Dev.	N	Mean	Std. Dev.
Goal setting	58	3.00	1.214	22	3.18	1.181
Learner involvement	58	3.02	1.291	22	3.14	1.207
Essence of portfolio	58	2.93	1.226	22	3.50	1.225
Content selection	58	2.95	1.146	22	3.18	1.259
Scoring criteria	58	3.03	1.228	22	3.18	1.220
Reflection on entries	58	2.97	1.123	22	3.14	1.248
Grading system	58	3.14	1.206	22	3.59	1.098
Management involvement	58	3.03	1.256	22	3.23	1.307
Teachers' involvement	58	3.09	1.315	22	3.73	1.202
parental involvement	58	2.95	1.234	22	3.68	1.171

Table 1 shows that on a scale of 1–5, the individual mean scores in both public and private primary schools ranged from 2.93 to 3.68. The results imply that the teachers agreed that they were trained on how to use portfolio assessment to measure children's learning. Teachers who were interviewed appreciated the training on portfolio assessment. It was noted that training opened up their understanding of portfolio assessment. Being a new area, teachers explained that portfolio assessment cannot be effectively carried out without

adequate training. In the following excerpt from recorded interviews, teachers demonstrated that effective use of the portfolio solely depended on adequate training.

> *The training was good since I did not know anything about portfolio, so it is during the training that I came to know about them and they are done… (Teacher 22, Public)*
>
> *…yes, we went for the training and I can say that that training was an eye opener for …without it I could much more confused in this issue…but thank God at least I attended. I hope we shall go for more training because this work is tedious and it needs adequate support … (Teacher 13, Private)*
>
> *--although the training was one only, I can say that I was able to get the basics of making a portfolio… (Teacher 34, Public)*

Figure 4.5 below shows a summary of teachers' views about the training they underwent on use of portfolio assessment in early years.

Figure 1: Teachers' views on the training

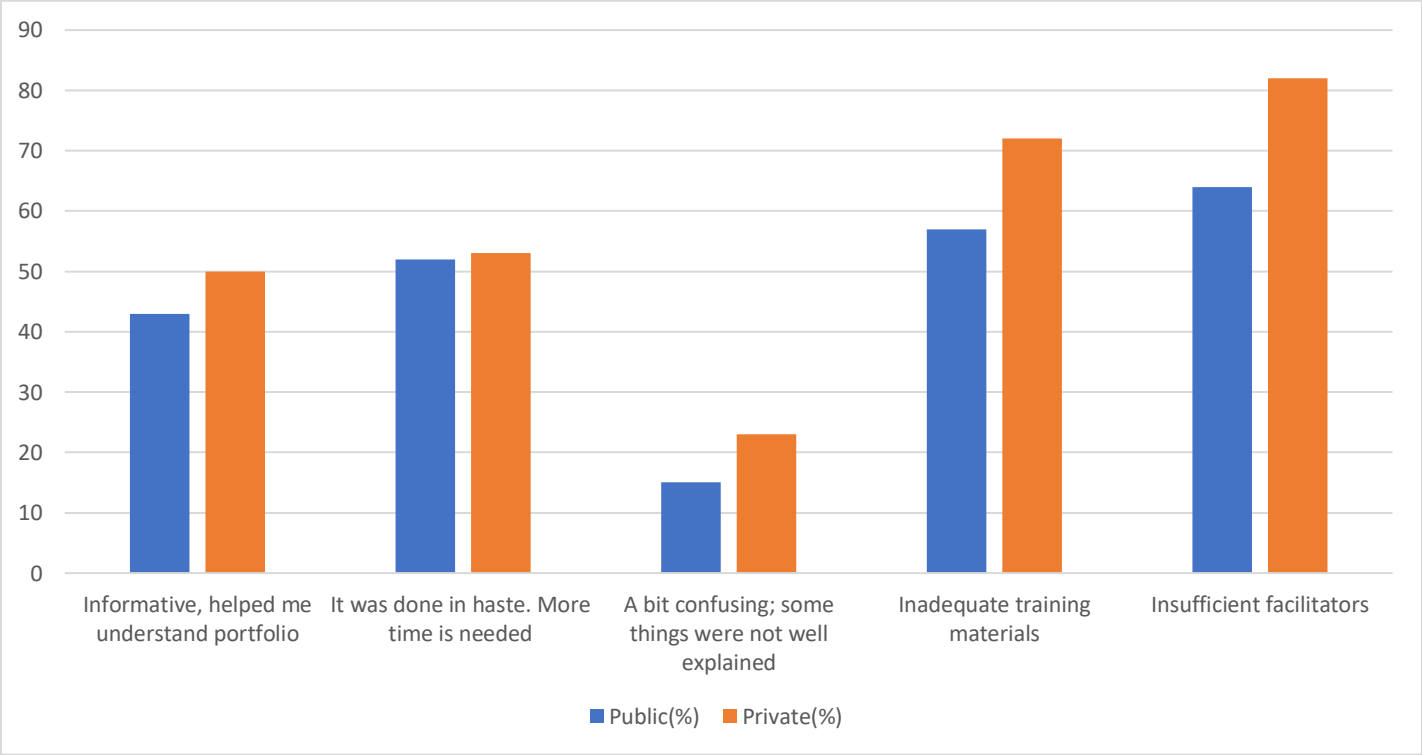

Figure 1 shows that the majority of teachers appreciated training as a source of information. However, they felt that the training was done in haste; it was a bit confusing because some concepts were not well explained; teachers' further felt that the training lacked adequate training materials, and even the manuals were not enough. They also felt the insufficiency of trainers and wondered how effective a training can be if it is done by one person from morning to evening.

Discussion

These findings agree with earlier research that highlighted the critical role training plays in putting educational programs into action. Despite their favorable attitudes toward portfolio assessment, Virgin and Bharati (2020) observed that insufficient teacher preparation led to a lack of planning in the assessment of portfolios. As a result, one of the main recommendations was to train instructors to improve their portfolio assessment abilities. Mothetsi-Mothiba (2022) and Tlokotsi (2008) expressed similar worries about instructors' deficiencies in portfolio assessment as a result of inadequate or nonexistent training. Omusoga (2019) found that head teachers lacked the necessary training, as evidenced by their incapacity to develop and administer evaluation instruments.

Teachers Training and Use of portfolio Assessment

To establish the existence of a relationship between teachers training and use of portfolio Assessment, Pearson Correlation Coefficient was utilized to test the hypothesis that had been stated as:

$H_0$1: There is no statistically significant correlation between teachers' training and use of portfolio assessment to measure children's learning in early years.

Table 2 shows overall mean score in teachers' use of portfolio and in training

Table 2: Teachers Mean Scores in Teachers' Training and Use of Portfolio an Assessment to Measure Children's Learning

	Mean	Std. Deviation	N
Use of portfolio	2.8354	.71576	79
Training	3.1050	1.05529	80

Results presented in Table 2 show that the overall mean scores in teachers training on how to use portfolio assessment to measure children's learning were 2.83, while that of teachers' training was 3.1.

To test the significance of the correlation between teachers' training and use of portfolio assessment, the Pearson correlation coefficient was sought, and the results are in Table 3

Table 3: Relationship between teachers' training and use of portfolio assessment to measure children's learning

		Use of portfolio	Training
Use of portfolio	Pearson Correlation	1	.672**
	Sig. (2-tailed)		.000
	N	79	79
Training	Pearson Correlation	.672**	1
	Sig. (2-tailed)	.000	
	N	79	80
**. Correlation is significant at the 0.01 level (2-tailed).			

As shown in Table 3, the correlation between teachers' training and use of portfolio assessment to measure children's learning was .672, with a p-value of .000. The results imply that the relationship between teachers' training and use of portfolio assessment was highly significant. The null hypothesis was thus rejected, which implies that there is a significant relationship between teachers training and use of portfolio assessment.

Discussion

This finding revealed that teachers who are well trained on how to use portfolios are able to carry out portfolio assessments effectively. This is in line with research by Mwesigye, Sekiwu, and Edoru (2024), which found a substantial correlation between the efficacy of teachers in southwestern Uganda and their professional development. The results of the study showed that the efficacy of science teachers is positively correlated (π = 0.473, $p < 0.01$) with teacher participation in professional development. This was consistent with previous research by Oguta and Getange (2019), who discovered that in the 2017 KCSE results, in Migori County, there was a substantial impact of teacher professional development on students' academic progress.

The results of this investigation are supported by additional findings. For example, Molao (2018) found that inadequate teacher skill sets result in substandard curriculum implementation. According to Zhuwale and Shumba (2017) in Isaboke et al (2021), one of the things preventing effective implementation in Zimbabwe is a lack of pedagogical competence. Sabola (2017) also pointed out that inadequate teacher preparation through training resulted in a minimal implementation of the redesigned elementary school curriculum. This was

consistent with a study by Paulo (2014), who purported that teachers were unable to implement new evaluation techniques because they were not trained to do so, and as such, they went back to doing examinations with pens and paper.

The findings were similar to Komba and Mwindaii's (2015) study that argued that, lack of training prevented less than 50% of teachers from using formative evaluations. Additionally, Kangori (2014) also concluded that effective curriculum implementation in Nairobi County depended heavily on the professional development of teachers. Similar findings were reported by KNUT (2019), who point out that instructors' lack of adequate training resulted in CBC implementation that was haphazard. This is further supported by Waweru (2018), who reported that most instructors in Nyandarua County indicated concerns with creating and utilizing CBC rubrics and that they were unable to develop a CBC lesson plan.

These results, however, contradict the findings by Ambei and Kim (2018) cited in Isaboke (2021), which contended that teachers still had difficulty implementing CBC even after receiving training. Ambei and Kim (2018) argued that the training had no effect on their capacity to perform CBC. Hadwe and Mpofu (2019) also made similar observations, noting that trained teachers in Zimbabwe did not create CBC lesson plans.

In a similar vein, according to Kariuki (2019), even though the majority of teachers had a favorable opinion of professional development, KCPE achievement was not significantly impacted by this. Most teachers participate in professional development as a result of pay increases and promotions. Enhancing their efficacy was unrelated to the trainings. Laikipia (2020) was unable to ascertain a meaningful correlation between in-service teacher preparation and efficacy.

Training Strategies for Optimum Use of Portfolio Assessment

Objective two sought to identify training strategies for optimum use of portfolio assessment**.** Figure 2 presents teachers responses on methods used to train them during KNEC's training on portfolio assessment.

Figure 2: Training strategies in KNEC training on use of portfolio assessment

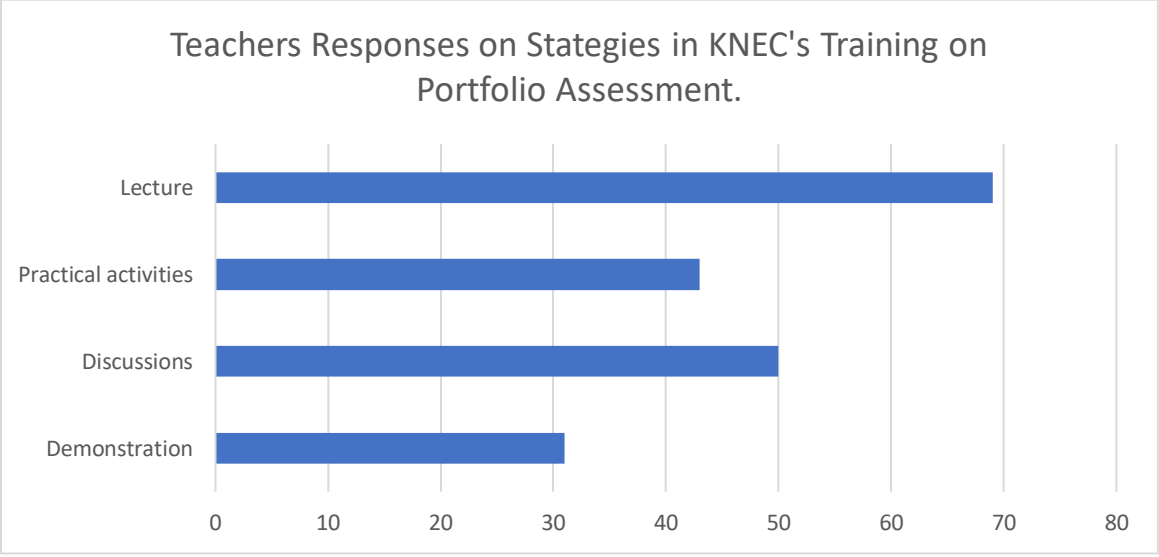

Figure 2 shows that 69% of training sessions had lectures, followed by 50% by discussions and 43% by practical exercises. The least common training approach, at 31%, was demonstration. This disclosure elaborates on the preceding assessment held by educators that the portfolio training was inadequate (see figure 4.9). Teachers have expressed unhappiness with the implementation of portfolio assessment, citing inadequate training as the main cause, particularly for those teachers with 11 years and above of teaching experience. This indicates that the training methodologies employed were not learner-centered. Since teachers are lifelong learners, experiential learning that is grounded in reality is more effective for them than methods that merely involve recitation and lecture. Additional interviews with instructors indicated that, as a result of the way the training was conducted, they did reap the full benefits. One teacher noted that

"Sincerely speaking the training was a rush…we are told many things in short period of time –so I did not understand many thing…" ***teacher 12, private school***

Another one said,

"Our trainers were very much theoretical…very few could use any illustrations in their explanation. Many of us were left confusion…many things said there were not easy to comprehend…" ***teacher 41, public***

Yet another complained about the mastery of content of the trainer:

"I saw that some trainer did not fully understand this concepts…explanations not well done…and even when you ask a question, the response is still confusing…so the just read the manual without proper illustrations and discussion…" **teacher 47, public.**

Ineffective training techniques lead to teachers attending such courses only as a formality, unable to recognize the true purpose of the training. These results are consistent with earlier research showing a favorable relationship between learner-centered teaching practices and student performance. Andala and Ng'umbi (2016) found that there was a substantial mean difference in students' performance depending on the teaching strategies used. A post-hoc differences analysis revealed that group discussions were the best teaching strategy. Interactive lecture techniques came next, with standard lecture approaches being the least effective.

According to Antony and Garner (2016), teaching strategies such as debates, demonstrations, and inquiry-based learning are more effective than lecturing. Compared to teacher-centered learning, learner-centered learning boosted learner achievement, according to Precious and Feyisetan (2020). Students in secondary schools who were taught chemistry using the computer-based simulation method performed better than those who were taught using other methods (Mihindo et al., 2017).

CONCLUSIONS

There was a link between the teachers' actual portfolio utilization and the KNEC-conducted portfolio usage training. The study found a significant beneficial relationship between instructors' usage of portfolios and their training. Put differently, the way educators utilized the portfolio was contingent upon the training. Usage was equally beneficial in cases where the training was successful. During the training, the majority of teachers learned about portfolios for the first time. As a result, the training provided teachers with information and gave individuals in attendance a sense of empowerment about portfolio development and use.

The approaches employed for training teachers on portfolio assessment were not focused on learning. A lot of lecturing was done during this time, which confused a lot of teachers concerning portfolio assessment. As a result, instructors' needs for portfolio assessment training were not entirely satisfied.

RECOMMENDATIONS

The study recommends that the training should be given enough time, it should be done regularly and it should utilize learner centered training methods. It is further recommended by this study that KNEC should conduct more training on portfolio assessment and other CBAs. This ensures the concept sinks into the trainees. For portfolio assessment to be successful, a clear guideline should be provided on grading so that many teachers are not confused. Trainings should not be done in haste where some key concepts are not well explained. There is need for adequate trainers to avoid fatigue and monotony. Training should be trainee centered such that they are fully involved in practical activities during the training. Training need assessment should be conducted from time to time so as to identify key areas that need further training.

REFERENCES

1. Abdullahi O. (2020). School Based Factors Influencing Implementation of Competency Based Curriculum in Public Pre-Schools in Garissa Sub-County, Garissa County Kenya (Unpublished Masters Project, University of Nairobi, Kenya)

2. Chemagosi M. (2020). Teachers Preparedness on Implementation of Competence Based Curriculum in Lower Public Primary Schools in Kilifi and Nandi Counties, Kenya. Curriculum in Primary Schools in Kenya.
3. Chere-Masopha, J., & Mothetsi-Mothiba, L. (2022). Teachers' experiences of using a portfolio for teaching, learning, and assessment in Lesotho primary schools. Cogent Education, 9(1), 2023969.
4. Christine, A. B., Billiah, G., & Jared, N. A. (2019). Influence of teaching methods on students' academic performance in Kiswahili subject in public and private secondary schools in Lang'ata Sub-county. African Research Journal of Educational and Social Sciences, 6(2), 16-24.
5. Eren, T. (2007). " A bridge between home and school": portfolio assessment in early childhood education (Master's thesis, Middle East Technical University).
6. Hafeez, M. (2021). Impact of Teacher's Training on Interest and Academic Achievements of Students by Multiple Teaching Methods. Pedagogical Research, 6(3).
7. Isaboke, H., Mweru, M., & Wambiri, G. (2021). Teacher Preparedness and Implementation of the Competency-Based Curriculum in Public Pre-Primary Schools in Nairobi City County, Kenya. International Journal of Current Aspects, 5 (3), 32, 53.
8. Isaboke, H., Mweru, M., & Wambiri, G. (2021). Teacher preparedness and implementation of the Competency Based Curriculum in public pre-primary schools in Nairobi City County, Kenya. International journal of current aspects, 5(3), 32-53.
9. Jeng'ere, (2017). The Why, What and How of Competency Based Curriculum Approaches in Tanzania
10. Kangori, B. N. (2014). Teacher related factors in the implementation of science activities in preschools in Nairobi County (Doctoral dissertation, University of Nairobi).
11. Kemboi, M., & Nabwire, V. (2017). Assessment Of Teacher Competence in Pedagogical Knowledge in The Implementation of Secondary School Curriculum in North Rift Region, Kenya. International journal of education, learning and development, 5(7), 31-43.
12. Kisirkoi, F., & Kamanga, A. N. (2018). Continuous Teacher Professional Support for Effective Implementation of Basic Education Curriculum Framework. Education Quarterly Reviews, 1(2), 309 – 317
13. KNEC, (2021). Understanding the competency-based assessment (cba). Nairobi. https://www.knec.ac.ke/wp-content/uploads/2021/10/UNDERSTANDING-THE-COMPETENCY-BASED-ASSESSMENT-CBA-pdf.pdf
14. KNUT, (2019). Influence of Teachers Preparedness on Implementation of Competency Based Curriculum in Primary Schools in Kenya.
15. LAIKIPIA, I. (2021). Influence Of Devolved Governments Function of Training on Performance of ECDE Teachers In Laikipia East Sub-County, Laikipia County, Kenya. European Journal of Research in Social Sciences, 9(2).
16. Makunja G. (2016). Challenges Facing Teachers in Implementing Competence-Based Curriculum in Tanzania: The Case of Community Secondary Schools in Morogoro
17. Mandillah, L. (2019). Kenyan curriculum reforms and mother tongue education: Issues, challenges and implementation strategies. Education as Change, 23(1), 1-18.
18. Mihindo, W. J., Wachanga, S. W., & Anditi, Z. O. (2017). Effects of Computer-Based Simulations Teaching Approach on Students' Achievement in the Learning of Chemistry among Secondary School Students in Nakuru Sub County, Kenya. Journal of education and practice, 8(5), 65-75.
19. Mokua, B. (2010). An evaluation of the curriculum development role of teachers as key agents in curriculum change (Doctoral dissertation, North-West University).
20. Muganda, C. K., & Kabate, M. J. (2016). Potentials and challenges of student progress portfolio innovation assessment for quality in an ODL context: A Case of the Open University of Tanzania. Huria: Journal of the Open University of Tanzania, 23(1), 93-105.
21. Mugenda, O. M. Mugenda (1999): Research Methods Qualitative and Quantitative Approaches.
22. Muiruri, E. N. (2020). Teachers And Students Perception On Portfolio Assessment In Secondary Schools In Kenya (Doctoral dissertation, University of Nairobi).
23. Mwesigye, S., Sekiwu, D., & Edoru, J. M. (2024). Professional Development and Science Teacher Effectiveness in Africa: A Study of South Western Uganda. East African Journal of Education Studies, 7(3), 176-193.

24. Njoroge, G. N., Changeiywo, J. M., & Ndirangu, M. (2014). Effects of inquiry-based teaching approach on Secondary School Students' achievement and motivation in Physics in Nyeri County, Kenya. International Journal of Academic Research in Education and Review, 2(1), 1-16.
25. Oguta, P. A., & Getange, K. N. (2019). Influence of Teacher Professional Development on Learner Academic Achievement in Migori County, Kenya.
26. Omar, C. M. Z. C. (2014). The need for in-service training for teachers and it's effectiveness in school. International Journal for innovation education and research, 2(11), 1-9.
27. Ondimu, S. M. (2018). Teachers' Preparedness for Implementation of The Competency Based Curriculum in Private Pre-Schools in Dagoretti North Sub-County, Nairobi City County (Doctoral Dissertation, University of Nairobi).
28. Paulo, A. (2014). Pre-service teachers' preparedness to implement competence-based curriculum in secondary schools in Tanzania. International Journal of Education and Research, 2(7), 219
29. Peters, S., Hartley, C., Rogers, P., Smith, J., & Carr, M. (2009). Early childhood portfolios as a tool for enhancing learning during the transition to school.
30. Precious, E. C., & Feyisetan, A. V. A. (2020). Influence of teacher-centered and student-centered teaching methods on the academic achievement of post-basic students in biology in Delta State, Nigeria. Teacher education and curriculum studies, 5(3), 120-124.
31. Priscah, M. J., Ronald, O. O., & Tecla, S. J. (2016). Portfolio development as a method of learning, assessment and evaluation in clinical Nursing Education in Kenya. Int. J. Sci.Res. Innov. Technol.
32. Sexton, R., & Garner, B. (2020). Student perspectives of effective pedagogical strategies for teaching ethics. Marketing Education Review, 30(2), 132-137.
33. Stols, G., Kriek, J., & Ogbonnaya, U. I. (2008). The relationship between teaching practices and students' achievement in mathematics in Lesotho. African Journal of Research in Mathematics, Science and Technology Education, 12(si-1), 107-118.
34. Syomwene, A. (2017). Teacher Support and School Environment Factors Influencing Children's Outdoor Play in Early Childhood Curriculum in Pre-schools in Kenya. Journal of Scientific Research and Reports, 14(4), 1-13
35. Tlokotsi, M. M. (2008). A model to improve the implementation of portfolio assessment (Doctoral dissertation, North-West University).
36. Tshabalala, N. G., & Ndimande, A. (2016). The perceptions of students and staff towards portfolio assessments: The case of Mangosuthu Technikon in Kwa Zulu-Natal Province South Africa. Mediterranean Journal of Social Sciences, 7(3), 319.
37. Ugodulunwa, C., & Wakjissa, S. (2015). Use of Portfolio Assessment Technique in Teaching Map Sketching and Location in Secondary School Geography in Jos, Nigeria. Journal of Education and Practice, 6(17), 23-30.
38. Virgin, J. A., & Bharati, D. A. L. (2020). Teachersâ€™ Perception, Plan, and Implementation of Portfolio Assessment in Studentsâ€™ Writing Assessment. English Education Journal, 10(2), 143-153.
39. Waweru, J. W. (2018). Influence of teacher preparedness on implementation of competency-based curriculum in public primary schools in Nyandarua North Sub-County, Kenya (Doctoral dissertation, university of Nairobi).