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## **Pedagogical Content Knowledge Model on Teacher Evaluation and Quality Education in Kenya: A Literature Review Analysis**

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**Abstract:** This study examined the Pedagogical Content Knowledge Model used in Kenya's Teacher Evaluation and Quality Education. The researcher adopted a desktop research design called secondary data to collect data from existing resources, including libraries, reports and published studies. The design was cost-effective compared to field research, as data could be obtained through reading online libraries and journals. Although enhanced teacher assessment programs are known to produce better educational results in various subject areas in Kenya, disparities in training quality across rural and urban regions of the country impact the programs' effectiveness. In the long run, this makes the standardisation of high-quality training essential in boosting education standards countrywide. Pedagogical Content Knowledge Model, Marzano Focused Teacher Evaluation Model, Trans-formative and Social Constructivism Models may be used by education officials to develop teacher training programs that can successfully develop teacher training programs that will enhance quality education in the country. The study facilitates the development of teaching resources, which will mainly focus on realities on the ground and which can enable learners to comprehend and retain content taught by instructors in their classes. Besides, the study's results promote policies that require the inclusion of

a significant component of local content in teacher training programs, thus ensuring the contextual relevance of education.

**Keywords:** Desktop research, educational frameworks, quality education, teacher performance appraisal, training program, pedagogical training.

## Introduction

In the teaching profession, teachers are significant facilitators who prepare their learners for various future responsibilities. Besides, in the digital world, they help advance new technology in their schools. As NSF<sup>1</sup> puts it, teachers are change agents who help to develop knowledge, skills and attitudes. Teachers are expected to grow throughout their lives professionally in a very sustainable manner; hence, their performance appraisal needs to be done by their employer regularly. Utami and Vioresa (2021) supported this view and argued that teachers are pivotal in delivering quality education. However, the arguments have been supported by many developing nations like Ethiopia, Kenya, and Nigeria. In developed countries such as the USA, Japan and Britain, quality education is evaluated through metrics such as teacher evaluations, student outcomes and curriculum content delivery.

According to the National Assessment of Educational Progress (NAEP), gradual improvement in Mathematics has been realised in the United States of America. However, they point out that, over the past decade, reading scores have remained relatively stagnant as opposed to Japan, a developed economy, which has maintained its performance standards. This indicates that curriculum content delivered in classes is of very high quality and that teachers are effective in their work<sup>2</sup>. The situation in the UK is not any different from that experienced in the USA and Japan. The introduction of new teaching standards in that country has been brought about by improvements in the evaluation of teachers' and learners' academic achievements, especially in English and Mathematics, as observed by Strat et al. (2024). This clearly shows that in Britain, a robust educational framework has supported teacher development and students' learning environments for some time.

Although in the contemporary world, we live in today, there are teacher performance appraisal systems already in place; there are disparities that can be noted in these systems, especially when it comes to learners' access to quality education in rural and urban areas and also among learners who live in different socioeconomic setups (So et al., 2021). Let's look at the USA, for example. There are significant gaps between students from low-income families and their counterparts who hail from well-to-do families, and this, therefore, indicates that there are inequalities in the government's attempt to provide quality education, as observed by the Department of Education (2021). Japan, a developed country, faces challenges in its bid to adapt to its traditional education methods, which are thought to enhance creativity and independent learning styles. The ongoing debates in the UK concerning the teaching methods and the relevance of the curriculum implemented in the country point out the kind of educational assessment that needs to be carried out if quality education is realised (Department for Education, Skills and Employment, 2022). There is a need for continuous teacher appraisal to enhance the delivery of content in class. Besides, there is also a need for constant improvement in the variation of teaching methodology so that the approaches applied in class are adaptive to the ever-changing societal needs (Utami & Vioresa, 2021). As witnessed in developing countries, mainly in Africa, factors

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<sup>1</sup> <https://www.nsf.gov/>

<sup>2</sup> <https://usafacts.org/>

such as limited resources, shortage of teachers and delivery of less standardised curriculum continue to challenge the provision of quality education in schools.

On the other hand, despite Brazil's efforts to implement reforms to improve learners' outcomes and teacher quality, researchers such as Ivenicki (2021) have observed that struggles with the distribution of inadequate resources and curriculum delivery are challenges that cannot be ignored. This confirms that developing countries struggle to provide quality school education (Sanfo & Ogawa, 2021). Many countries in Sub-Saharan Africa are grappling with issues such as inadequate infrastructure, limited access to educational reference materials and high learner-teacher ratios in schools. Inadequacies in teacher evaluations have shown the need to frequently have teacher development and training programs to enhance student learning skills and effectively implement quality education in schools. These programs directly impact the learner's outcomes and curriculum delivery in schools, as Strat et al. (2024) observed.

In Kenya, Teacher Performance Appraisal and Development has been in place since the 1980s, when the mode of appraisal was confidential and only the administrators or supervisors were involved in providing a confidential report concerning a teacher whenever the teacher was due for promotion. The system was termed apartheid, vastly bureaucratic, top-down and full of malice. In 2013, the system was revised and replaced with an interactive system whereby the appraiser and the appreee meet face-to-face and discuss the targets to be accomplished within a specified time. The set targets then become the basis for the appraisal between the appraiser and the appraisee. The Sessional Paper No. 14, 2012, recognised the importance of performance appraisal in managing teaching quality standards. The TSC Act 2012 gives the TSC the responsibility of ensuring teachers conform to the prescribed teaching standards by the Commission under this Act and to observe the behaviour and teachers' performance in the teaching delivery.

Demand for accountability in the education system is increasing and can only be achieved when the teachers feel accountable for the school's and its students' performance. Performance evaluation is, therefore, a continuous practice of identifying, assessing, and improving a teacher's performance in connection with an organisation's strategic goals (Hurskaya et al., 2024). The process focuses on assessing performance for career progression and increasing performance, such as career growth, professional knowledge, and feedback. The objective is to enhance accountability and instructional improvement, ensuring quality teaching and improved academic performance (Basnal, 2022). Excellent classroom-observation-based assessment and Performance procedures can perfect average teacher performance during the evaluation period and subsequent years.

Hurskaya et al. (2024), in their research on the relationship between TPAD Scores and the achievement of students' education organisation in Zanjan, found that teachers' TPAD scores are similar to the achieved scores of students. However, evaluation ratings were undesirably connected with student achievement. This shows no association between overseer performance scores and achievement of the teachers' students (Hurskaya et al., 2024). Kenya has invested in educational reforms to improve classroom curriculum content delivery and increase teachers' accountability. However, it must be noted here that achieving consistent improvements across the country remains a significant challenge for the government in finding a lasting solution. The challenges experienced in the education sector in Kenya and most other developing countries are brought about by cultural barriers, political instability and economic constraints, which are mostly known to be a significant hindrance to delivering quality education in the country's urban and rural regions.

In countries such as Ethiopia, for instance, the political unrest and difficulties in the economic sector have, in the past and even currently, brought about interruptions in school calendars, affecting

both student learning outcomes and teacher performance. Despite many challenges witnessed in developing countries regarding teacher evaluation and provision of quality education, there are indications that they are making some good progress, since countries like Rwanda, through increased investment in teacher training and infrastructure development, are making strides in improving education. The efforts made by Rwanda and other African countries are crucial in ensuring sustainable development and enhancing educational quality in the region.

The quality of education in developed countries such as the UK, America and Japan, to name but a few, is frequently analysed using student outcomes, curriculum delivery and teacher evaluations. In the USA, for example, between 2019 and 2022, a decrease in eighth-grade Mathematics and reading proficiency was noted, marking the lowest rates in at least fifteen years. Through this decline in the country, increased spending per student to an all-time high in public schools has been witnessed, and adjustments have been made to counter inflation that hit many countries during COVID-19 between 2020 and 2021, as reported by USA Facts<sup>3</sup>. Despite financial constraints in the UK, a relatively high quality of education has been maintained in the educational system. At the same time, a slight decline in scientific publication output has been witnessed in Japan, thus suggesting potential areas that need educational policy adjustments. As pointed out by NSF<sup>4</sup>, there has been consistent expenditure on student learning, teacher training, and curriculum development in the UK and many other developed countries where a robust infrastructure for education has been seen. Despite this, there is a need for a timely and continuous assessment and adaptation to meet the changing educational demands.

As evidenced by improved student outcomes, curriculum delivery and teacher evaluations, education quality can be significantly enhanced through participation in advanced teacher training programs that aim to equip teachers with modern and innovative pedagogical skills and up-to-date content. This, in the long run, translates to effective teaching practices. According to Doe (2021a), teacher training programs that include differentiated instruction strategies and classroom management tend to lead to serious learner-based engagements and more personalised teacher and learner experiences. More often than not, these programs incorporate modern teaching methodologies and the latest technology, which enable teachers to prepare and deliver a more dynamic and relevant curriculum.

### ***Problem Statement***

Excellent learning provides learners at the basic level with a sound foundation in education. Each country works tirelessly to ensure all learners in schools receive quality basic education, which is the basis of its economic stability. As observed by Doe (2021b), policymakers in the education sector need up-to-date, reliable and complete data on teacher performance and evaluation to make the right decisions regarding the provision of quality education in schools. In Kenya, getting this type of data has been challenging for some time now because of many delays experienced when collecting up-to-date, reliable and complete data from schools. Although education officials make ongoing efforts to ensure educational outcomes are enhanced in the country, there are disparities in what has been achieved in education across the many different socioeconomic and geographical landscapes. This has caused significant challenges to providing quality education in the country.

Researchers and educationists in developed countries have recognised the Pedagogical Content Knowledge Model as the best model for evaluating teachers' performance and the effectiveness of teacher training programs. They say the model is critical in providing quality education in schools. They point out that there has always been a gap in understanding the model's specific impacts, the training

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<sup>3</sup> <https://usafacts.org/>

<sup>4</sup> <https://www.nsf.gov/>

initiatives used to train teachers, and the learners' educational outcomes realised within diverse contexts. As observed by Gast (2022), while teacher training programs are meant to equip teachers with the much-needed knowledge and skills, what has not been consistently evident is how these competencies are translated to improve classroom practices and desired students' learning outcomes. For Kenya to ensure quality education in schools, the content of teachers' training programs must be aligned with actual classroom needs. Besides that, there is a need for the Ministry of Education to ensure an all-inclusive teacher evaluation model is applied when carrying out teacher performance appraisals, ensure the adequacy of support structures for post-training and ensure the sustainability of training impacts across diverse landscapes in the country.

This paper aims to examine the model used by Ministry of Education officials and the Teachers' employer, the Teachers Service Commission, to evaluate teachers' performance and also to assess whether the pedagogical training programs used to train teachers are capable of equipping them with the required teaching skills which will make learners acquire 21<sup>st</sup>-century problem-solving skills. In recent years, Kenya has not been doing well, especially in developing innovative policies that would ensure practical teacher performance evaluation and the evaluation of students' learning outcomes. In secondary schools, for example, adopting new teaching methods that embrace educational technologies that enhance students' learning experiences has not been realised. The same case is also seen in primary schools across all regions in the country. Although education officials have always used the Pedagogical Content Knowledge Model to appraise teachers, the government has had challenges concerning the quality of education provided in schools, as Basnal (2022) noted.

According to Muammar and Alkathiri (2021), 46% of the Form four leavers who don't get the required grades to transit to universities are said to be at home and are not engaged in meaningful income-generating activities. Worline and Dutton (2021) observed that education is supposed to help school leavers identify areas they are good at while at school and become job creators thereafter. They maintain that 45% of those who leave secondary school education join various sectors of our economy as casual workers and end up frustrated in life.

As a researcher, I want to state that scientific evidence based on research on the impact of teacher performance training programs is lacking. Therefore, this study aims to examine the model officials of the Ministry of Education and the Teachers Service Commission are using to assess Pedagogical training courses and teachers' performance and will discuss in detail the impact of pedagogical training skills on teachers' practices, experiences and conceptions. It is therefore hoped that well-structured teacher training, which tries to include ongoing professional teacher development (Li et al., 2021), support networks and access to modern teaching resources, can lead to improved teaching practices, which finally will translate to enhanced learner performance, a more inclusive learning environment and achievement of a higher level teacher-student engagement.

## **Theoretical Framework**

### ***Pedagogical Content Knowledge (PCK)***

Kenya has a total of 33042 Primary and Secondary Schools with a teaching force of 331,232 teachers spread across urban and rural regions of the country. This number includes those teachers who are employed on permanent and pensionable terms, serving as interns, and therefore are employed on contract terms. Since Kenya became independent in 1963, the Ministry of Education, through the Teachers Service Commission, has used the Pedagogical Content Knowledge Model(PCK) to evaluate its primary and secondary school teachers. This Model, founded by Shulman in 1986, offers instructors unique knowledge that focuses on how they relate their teaching methodology to the subject matter

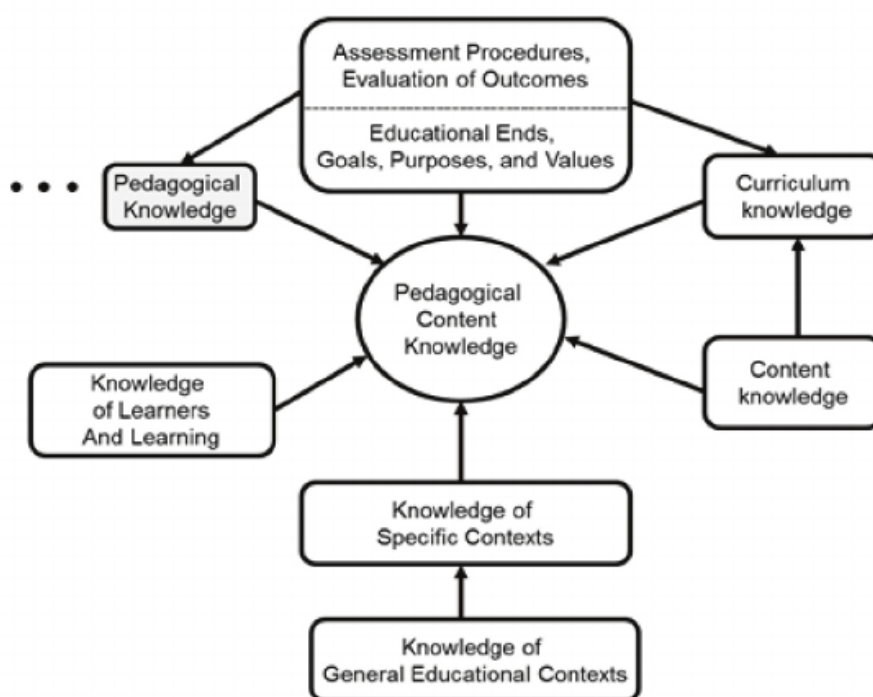
they prepare to teach. Therefore, it is essential to note that the teachers' knowledge of pedagogy and the subject matter's integration comprises pedagogical content knowledge (Basnal, 2022).

Yeh et al. (2022) revised the original model of Shulman to align it with a constructivist perspective, upon which the teaching of content in class and the learning of students are based. Then they came up with the Pedagogical Content Knowledge (PCK) model, which laid a lot of emphasis on the teacher's understanding of learners' ages, developmental levels, abilities, learning strategies, attitudes, motivations and also their entry-level knowledge of concepts they have acquired before being taught by a teacher, as opposed to Shulman's original model which emphasised subject matter mastery by the teacher and the methodologies they use to deliver content in class. The revised model that the four scholars came up with laid a lot of emphasis on the teacher's understanding of the learner's cultural background, social set-up, the physical environment surrounding the learner and their political environment.

The Pedagogical Content Knowledge (PCK) Model proposes that teachers must fully design classroom content skillfully so that it is not only pedagogically robust but also adaptive to the variations in learners' abilities and backgrounds. The theory is critical as it provides valuable insights into how teacher training programs can equip teachers with relevant pedagogical skills that enable them to effectively translate their subject matter into teachable content that enhances educational outcomes. Figure 1 shows the main elements of the model that need to be followed when evaluating teachers.

**Figure 1**

*Pedagogical Content Knowledge Diagram*



Source: Author's development.

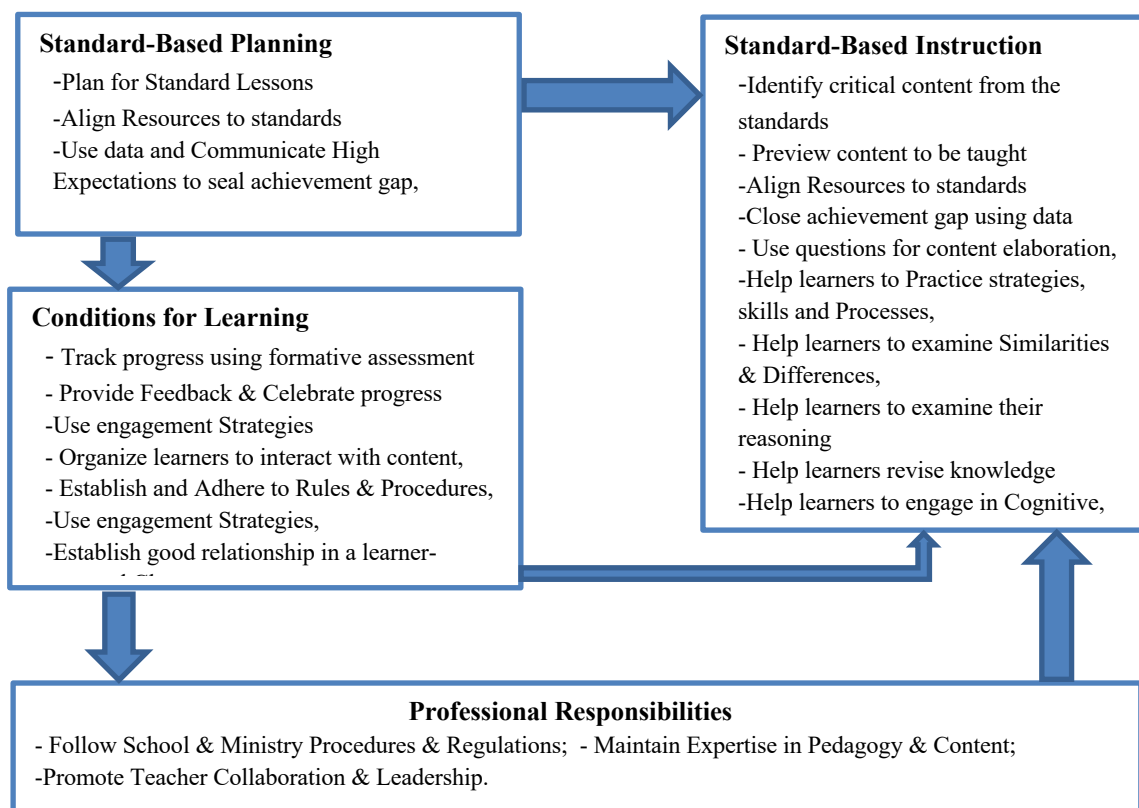
From the elements in Figure 1 above, the teacher is expected to assist the learner in understanding the content within the syllabus or the curriculum and fully support their development. This teacher's ability to understand how to deliver content effectively in class makes them an expert.

## ***Alignment of PCK Model to Marzano Focused Teacher Evaluation (MFTE) and Transformative Models***

The Marzano Focused Teacher Evaluation Model, which comprises four areas of expertise and was designed to guide a teacher's planning and instructional strategies' implementation, was advanced by Robert J. Marzano in 2010. The model emphasises a step-by-step learner observation, which tends to improve inter-rater reliability. Besides, it also emphasises that teachers need to be aware of their learners' classroom learning conditions and understand their professional responsibilities as teachers. Further, the model emphasises that the teacher needs to use suitable teaching methodology strategies and monitor learning through students' evidence very closely, as this evidence is usually used to measure the effects of the teacher's use of instructional strategies. The Marzano Focused Teacher Evaluation Model requires that, when an evaluator is carrying out a competency-based evaluation, they must score all 23 model elements using a standard five-point scale, as shown in Figure 2 below.

**Figure 2**

*Marzano Focused Teacher Evaluation Model*



*Source:* Author's development.

As shown in Figure 2, apart from its ability to establish whether teaching in the classroom is effective, the Focused Teacher Evaluation Model mainly drives the teacher's improvement towards standards-based teaching and its success. The model allows the teacher to be flexible as they present content in class and adapt to meeting current regulations. Besides, the model is designed to enable the integration of the four significant areas of expertise into classroom standards to establish the following: (i) a relentless focus on learner's learning outcomes with leading indicators being emphasised; (ii) an instructor's teaching framework which steadily progresses classroom instruction from elemental to complex tasks; (iii) whether the teacher is empowered with the necessary teaching resources and tools that ensure his growth and development in their teaching profession; and, (iv) ensuring that in every classroom, there is a rigorous standards-based system.

As the model concentrates on measurable teacher actions and their capabilities into 23 important behaviours to measure the teacher's effectiveness within their four domains, Westwood (2018) notes that the model emphasises a kind of evaluation that focuses on the available elements which give support to the teacher to develop their expertise. It is therefore believed that this focused number of elements makes it easy for the teachers to shift to standards-based pedagogy progressively and decreases potential scoring errors by observers (Sinem & Ahmet, 2022). The model is objective-oriented and evidence-based, and above all, it evaluates the teacher's performance against specific criteria. More so, it aligns content taught in class to standards set and learner outcomes based on evidence. Unlike the Pedagogical Content Knowledge Model, the Focused Teacher Evaluation Model emphasises students' learning evidence, which is the teacher's key indicator of their effectiveness in delivering content in class, as observed by Westwood (2018). Here, the teacher has to have samples of evidence of desired effects seen in the learners and also must look at whether they followed known protocols of curriculum implementation while in class. As observed by Muammar and Alkathiri (2021) in their research on cognitive psychology, students learn better when teachers make efforts to engage them intellectually in the content delivered. To ensure this, teachers have to plan their lessons adequately, considering there are patterns in the cognitive, social, and emotional developmental stages of individual learners that are typical of different age groups.

As observed by Vaughn et al. (2021), students learn in their own ways; hence, there might be gaps or misconceptions in individual learning processes, which teachers must consider and thus ensure they come up with appropriate learning activities that will engage all learners intellectually. When planning lessons, teachers need to know that their learners have a life to be lived beyond school life, which includes musical and athletics pursuits in their neighbourhoods, cultural and family traditions, hence the need to identify teaching learning resources which will enable all learners' understanding especially those whose first language is not English as well as those with special needs or those in one way or another are handicapped mentally or physically (Ngubane, 2024). For the Ministry of Education and the Teachers' Service Commission to ensure they enhance quality teaching in all primary and secondary schools, there is a need to ensure teachers are evaluated using three models: the Pedagogical Content Knowledge Model, the Marzano Focused Teacher Evaluation Model and the Transformative Model.

## **Materials and Methods**

The researcher in this study adopted a desk design, which is also referred to as secondary data. In research, this is a collection of data from already existing resources. The researcher preferred this method, which he then used to access reports and published studies whose data he accessed through online journals and libraries.

## **Results and Discussion**

### ***Transformative Learning Theory***

This theory, which Mezirow advanced in the 20th century, is defined as "an orientation which holds that the way learners interpret and reinterpret their sense experience is central to making meaning and learning. Trans-formative theory enables learners to evaluate their past experiences and understanding as they are taught new information. In their learning process, they shift through critical reflection on the way they perceive the world as they continue getting new knowledge. As Wimberly (2023) puts it, the theory goes beyond the learners' acquisition of new knowledge. It emphasises how they understand and find meaning in their lives through the new experiences they acquire as they learn. Their learning involves a fundamental change in their perceptions as they question their past experiences and everything they used to know or thought about. The new live perceptions enable them to create room for new insights and information as they examine past knowledge from new perspectives

acquired through learning new knowledge (Hinojosa, 2022). Experts and learners agree that this way of learning enables learners to exercise their freedom of understanding and thought, as it focuses mainly on communicative and instrumental learning. Communicative learning examines how people usually communicate their feelings, desires and needs. In contrast, instrumental learning delves into how task-oriented problems are solved and how cause-and-effect relationships are evaluated. All these elements are essential as trans-formative learning students need to pay attention to their different types of understanding and new emotional and logical perspectives, as Radovan and Radovan (2024) observed.

According to Mezirow, another essential element of trans-informational learning and the Trans-formative Learning Model is meaning structures or meaning schemes, which focus on our assumptions that are known to set the stage for the expectations we form in our minds. A meaning structure in the learning process is the beliefs, concepts, feelings and judgments we make as we encounter new information, which shape how we interpret information. As noted by Mallillin (2022), Mezirow suggests that learning only happens when adults encounter new experiences that challenge their past or existing viewpoints, a scenario that leads to a significant change in how the learners perceive things and also a change in their behaviour.

In this model, there are typical phases followed by adult education learners, which help them transform their prior notions as the teacher takes them through new information and insight. Here, the learner is taken through: (i) a disorienting dilemma where the learner gets to know that what they have been knowing is not accurate, and this becomes the beginning of the desire for trans-informational learning; (ii) the process of understanding their past experiences and then self-examine whether the beliefs, experiences and their past understanding of things still holds. This makes the learner understand that their perspectives may not be the only perspectives that exist; (iii) a thorough assessment of past assumptions, which need a critical review that would lead to their acceptance that some of the past assumptions might be wrong; hence are open to new information and thoughts; (iv) planning on the next course of action as the learner is now enabled to choose the learning they will need for them to understand a situation or a problem. In this way, the learner will acquire new strategies for learning.

Besides, the learner starts to talk to new people, a process that makes them acquire new perspectives; (v) the process of acquiring new skills or knowledge, which they need to plan adequately as they learn new things and develop new perspectives, which finally fully enhances learning, among others. The learners need to understand that their success in education entirely depends on exploration, trying new roles, and understanding that experiencing new things brings about new understanding and, hence, new knowledge. Besides, the model emphasises the need for the learner to build self-efficacy in new roles as they make relationships as learners and make informed decisions. Farrell and Ives (2015) observe that, as educators and learners follow the trans-formative learning phases explained here, we must build confidence in what we believe in and continually practice this trans-formative circle as we progressively learn.

Therefore, teachers as educators must assist learners in learning effectively using different learning strategies. The trans-formative Learning Model can be very important for older students as it helps them grasp new concepts and ideas. Teachers can apply transformative learning in their classrooms by assisting their learners in identifying the assumptions and past perspectives they already have, allowing their learners to learn about new perspectives, and ensuring that they create conducive environments in their classrooms for critical discussions. At the same time, teachers help learners form small group discussions and activities that help learners develop critical thinking and understanding. Classroom work helps learners embrace other people's thoughts, assumptions, perspectives and experiences. Therefore, the Transformative Learning Theory is essential in analysing how teachers'

training programs transform teachers' instructional plans and attitudes. More so, the theory helps them change their negative attitudes towards teaching as a profession, making a long-lasting impact on educational quality, as noted by Rahmawati (2023).

### ***Empirical Review***

Education scholars argue that average teacher performance is measured during evaluation. This can be perfected in subsequent years by having excellent classroom observation-based assessments and strictly following performance procedures. These views are supported by Landsman and Lewis (2023), who, in their study, sought to establish the relationship between teacher evaluation scores and achievement of student education organisations in Zanjan and found that teachers' scores are similar to the achieved scores of students. However, evaluation ratings were undesirably connected with student achievement. This shows no association between overseer performance scores and the achievement of the teachers' students. In a study by Matterson (2022), the researcher argues that the pedagogical competencies of classroom instructors adversely affect students' perceptions by focusing on the delivery of content and facilitation, assessment and communication, which are key dimensions of classroom pedagogy. These views are supported by Muammar and Alkathiri (2021), who observe that content design and delivery in a classroom environment must be based on the main concerns that make teachers attend the training programs. As emphasised by Kumari (2023), it is essential to note that communication and personal relationships are fundamental qualities and skills for one to become a mentor in teacher pedagogical programs.

In most European higher education institutions, teacher evaluation programs aim to promote pedagogical training, which enhances the quality of classroom instruction and the learning of students. Besides that, it addresses challenges experienced in student-centred learning and staff development. As Hunter et al. (2021) observed, the European Association for Quality Assurance in Higher Education (ENQA) institutions set quality assurance guidelines and standards that emphasise supporting teaching staff's professional development. This is realised through teachers' training on new pedagogies and teaching methodology. These scholars emphasise the need to prioritise staff development, as this ensures that teachers can design and deliver high-quality teaching and learning experiences that meet the learners' needs and interests.

Rather than pedagogical training aiming at acquiring techniques, Kelly et al. (2022) note that it should prioritise the provision of spaces that enable joint reflection of teachers on pedagogical practices, the curriculum and decisions. These two scholars point out that tutoring and mentoring programs are fundamental in changes expected in teaching practices and on issues related to supporting pedagogic innovation, as confirmed by Katsantonis and McLellan (2023). These help teachers acquire the competency required in their teaching profession and make them effective as they develop new skills and gain new insights into teaching and learning. As noted by Sánchez-Tarazaga et al. (2022), mentors are expected to guide new teachers on how to give and receive feedback from their learners on key learning aspects and encourage them to continue bettering their pedagogical skills in classroom teaching.

A study on the features of effective Pedagogical teacher training programs done by Forsman (2024) and which was based on models that focus on successful professional development identified seven fundamental design elements which are as follows: (i) these models incorporate active learning strategies; (ii) they are based on content to be delivered in class; (iii) the approaches use models of known effective practice; (iv) they constructively engage teachers as instructors in collaboration with their learners; (v) they include adequate time for feedback and reflection by both teachers and learners; (vi) they provide coaching and expert support to students for better learning; and, (vii) they are of

sustained duration. The researchers in this study point out the types of teachers' professional development which lead to a powerful student needs-based learning instructional improvement and conclude that such programs should be linked to identified teacher needs and ensure that the teachers who will undergo such programs have a say in determining the type of programs they require so that they can give their best support to learners. Besides, for quality education to be realised, the teachers who undergo such programs must be continually evaluated (Ishii & Ogawa, 2024).

A quantitative analysis study conducted by Howell (2021) sought to evaluate the impact of teachers' professional development and students' performance, which involved 200 teachers. The study showed a significant increase in teachers' proficiency in digital tools and improved student outcomes on technology-related assignments. The study's methodology involved comparing teacher self-assessment and pre- and post-training test scores (Hakro & Mathew, 2020). The researcher recommended that there is a need to have continuous updates on teacher training content. Besides that, he further suggested the incorporation of the latest technological advancements and periodic refresher sessions, which aim at helping teachers stay current. Howell (2021) points out the significance of a continuous teacher development program, which gives teachers the competency required to deliver content in class and keeps them updated with the rapid pace of technological change.

While employing a controlled pretest and post-test design, Karacsony et al. (2022) did a study on the effects of multicultural education training involving elementary teachers and their learners' cultural competencies where he measured shifts in learners' attitudes towards diversity after their teachers underwent a pedagogical training and found out that there was a significant improvement on empathy and cultural awareness among students. This outcome resulted from their teachers' use of the enriched multicultural content in their classrooms to teach them. Therefore, these two scholars suggested that such training must be mandatory in all schools if all teachers are expected to promote inclusivity among learners in diverse classrooms. They emphasise that teachers must be thoroughly prepared for content to be delivered in class and ensure their teaching environments encourage learners' inclusivity.

A study done by Farrell and Ives (2015) on the impact of reflective practice training on teachers' management strategies while delivering content in classrooms, which was conducted through observations and qualitative interviews, confirmed that more teachers were able to develop effective strategies for managing disruptions in class. This scenario fostered a positive classroom learning environment. This teacher's training focused on reflective sessions where teachers analysed their assessments of classroom interactions and managed to receive peer feedback (Mve, 2021). The researcher of this study recommends integrating reflective practices into regular teachers' professional development programs to ensure a continuous improvement in teachers' teaching effectiveness. The teacher, therefore, creates self-awareness and can acquire the adaptive teaching methodology required in interactive classroom learning environments. This is supported by a study by Kim et al. (2023) on peer coaching as an instructional strategy among elementary-level teachers. The study findings indicated significant improvements in collaborative learning environments and individualised student support from peer coaching. Therefore, they recommend formalising peer coaching frameworks in schools to enhance collaborative teacher professional development, which improves educational outcomes in the long run. The study findings emphasise the value of peer-to-peer learning and support among teachers as one of the most potent tools in effective classroom instruction and professional teacher development.

## ***Key Findings***

The researcher analysed the study's results into three primary research gap categories: contextual gap, conceptual gap, and Methodological gap. In these three research gap categories, the researcher indicated the existing research gaps that the study findings help fill.

**Contextual Research Gaps.** From the findings of studies done by scholars in the field of education and more specifically on Teacher Pedagogical Training and their performance evaluation, the majority of researchers have recommended that more research be done to establish the suitability of teacher training programs' content for the learners' needs and their learning environments. One example of such studies is one that was done by Baricaua Gutierrez (2021), which pointed out that there is a need for policymakers and teacher curriculum designers in the education sector to explore the scalability of their training programs across the many existing educational settings prevalent in any given country. Besides, in their study, Gheysens et al. (2022) have pointed out that the existence of rural settings shows that there is a gap in understanding the extent to which teacher training programs need to be modified for them to be effectively delivered in schools found in urban and rural regions or environments. They say this is extremely important because of the significant variations in teachers' backgrounds, resources used and students' needs.

**Conceptual Research Gaps.** Whereas, as education scholars, we understand that most, if not all, teacher training programs improve a teacher's teaching methodologies, Eden et al. (2024) suggest that the long-lasting sustainability of the improvements realised so far without continuous support remains quite unclear and this, therefore, points out to a clear gap in our understanding on how long effects of such teacher training programs last and the prevailing factors which contribute towards the sustainability of the impact realised over some time. Based on this understanding, Dinu and Chian (2023) highlight a serious need for continuous teacher training programs' updates to include the latest advancements so far realised in technology. Therefore, this suggests an existing conceptual research gap on how continuously evolving digital technology advancements can be integrated into teacher professional development programs most effectively and in a timely manner. Abacioglu et al. (2023) confirm the existence of a conceptual research gap when they argue in their study that the effectiveness of constructivist-based teacher training programs can only be achieved if we can find ways of incorporating structured peer mentoring into professional teacher development to enhance student learning outcomes further.

**Geographical Research Gaps.** According to studies conducted by Strat et al. (2024) and Karacsony et al. (2022) respectively, these researchers, without indicating if the results of their studies could be generalised globally, focused on specific educational practices, which research opens up a geographical research gap, especially on how training methodologies work across cultural setups and diverse educational systems around the globe. Therefore, this indicates that researchers must conduct further studies involving different national educational policies and cultural norms to seal this geographical research gap.

## **Conclusion and Recommendations**

### ***Conclusions***

To equip teachers with the much-needed teaching skills, methodologies, and necessary knowledge, there is a need to enhance teacher training initiatives, as this improves teaching effectiveness and the learners' learning outcomes. This, therefore, makes the influence and use of the Pedagogical Content Knowledge Model alongside other models, such as the Marzano Focused Teacher Evaluation Model and Transformative Learning Model, on all teachers' training programs and provision of quality Education

in our country, Kenya, very important. It is important to note here that teacher training programs play a very critical role when we are addressing our unique educational challenges as Kenyans, which include diverse student needs, varying levels of academic preparedness among teachers who teach at primary and secondary school levels and without forgetting the existing resource disparities (Tatham-Fashanu, 2021). Research indicates that well-structured teacher training, which tries to include ongoing professional teacher development, support networks and access to modern teaching resources, can lead to improved teaching practices, which finally translates to enhanced learner performance, a more inclusive learning environment and higher teacher-student engagement.

Furthermore, teacher training programs typically help foster positive school cultures and teachers' professional ethics, which are essential attributes needed for sustained educational quality. It can be noted that ongoing teacher development and the current refinement of existing teacher training programs in Kenya are significant when, as Kenyans, we are advancing the quality of education. Therefore, we need to ensure that teachers access teacher training programs quickly (Madigan & Kim, 2021) and that they are highly relevant and adaptive to educational landscapes that keep evolving occasionally. This is, therefore, important to maximise their impact on the teachers themselves and, by extension, their student learners. Thus, this approach benefits the teachers more and helps shape educational experiences so students do not forget their national prospects.

### ***Recommendations***

**Theory.** In theory, the application of the Pedagogical Content Knowledge Model, Marzano Focused Teacher Evaluation Model and Transformative Learning Model in teacher training programs enhances teacher-student engagement by aligning educational content with the learners' social context, hence integrating culturally relevant pedagogy in the classroom environment (Gudeta, 2022). Besides that, it enriches the teachers' understanding of how best technology can be used to support teaching and simultaneously deepen the teacher's content in class (Sorkos & Hajisoteriou, 2021). Based on reflective practice theory, the models further encourage a mindset among teachers on continuous improvement while focusing on self-assessment and adaptation to new learning changes in varying learning environments (Dönmez & Ahmet, 2022). By employing theories of the Pedagogical Content Knowledge Model, Marzano's Focused Teacher Evaluation Model, and the Transformative Learning Model, ensure that all training programs effectively prepare teachers in a way that meets the needs and interests of diverse student populations, especially those with special educational needs.

**Practice.** In practice, the Pedagogical Content Knowledge Model, Marzano Focused Teacher Evaluation Model and Transformative Learning Model help in facilitating the development of teaching materials which primarily reflect on local realities and this, in the long run, helps in improving student learners' comprehension and retention abilities (Daza et al., 2021). Besides, they equip teachers with the necessary technological skills to effectively incorporate technology in their classroom teaching (Al-Hameed, 2022). When applied appropriately, the models establish sustainable relationships between instructors and their learners, which, in the long run, allow for continuous knowledge exchange and sharing of the available teaching and learning resources, thus enriching teacher training curricula (Ofsted, 2021). Besides that, the models also provide teachers with the much-needed practical skills in differentiated instruction and special education strategies. Therefore, they promote equity and access in classroom environments (Ali & Shafeeq, 2021).

**Policy.** The Pedagogical Content Knowledge Model, Marzano-focused Teacher Evaluation Model, and Transformative Learning Model Promote educational policies requiring teacher training programs to include critical local content components while ensuring that the kind of education offered is contextually relevant (Taylor et al., 2022). The models drive the creation of national standards for using

modern technology in education. This ensures consistent and comprehensive digital integration across the school system and teacher training programs (Dawadi et al., 2021).

### ***Suggestions for Further Research***

The researcher in this study investigated the suitability of using the Pedagogical Content Knowledge Model to evaluate teacher training programs and teachers' performance in general by education officials and found out that better results could in future be realised if this model could be used alongside other models such as Marzano Focused Teacher Evaluation Model and Trans-formative learning model. The study recommends that further research be done involving other models, such as Social Constructivism Models, The Value Added Model (VAM) and The Framework Model, among others, to establish whether future teacher training programs can bring about the successful development of teachers, produce better student learning outcomes and enhance quality education in the country. The researcher further suggests that similar research be done, which now would look at the influence of teacher evaluation frameworks on staff attraction and retention in both public and private primary and secondary schools, focus on their overall achievements in the contemporary competitive learning environments and assess their contribution towards learners' development and that of the economies of underdeveloped countries.

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### **References**

- Abacioglu, C. S., Epskamp, S., Fischer, A. H., & Volman, M. (2023). Effects of multicultural education on student engagement in low- and high-concentration classrooms: The mediating role of student relationships. *Learning Environments Research*, 26(3), 951–975. <https://doi.org/10.1007/s10984-023-09462-0>
- Al-Hameed, K. A. A. (2022). Spearman's correlation coefficient is used in statistical analysis. *International Journal of Nonlinear Analysis Application*, 13(1), 3249–3255. [https://ijnaa.semnan.ac.ir/article\\_6079\\_b33de0a741ab703e8afa7a63fc2ebfb4.pdf](https://ijnaa.semnan.ac.ir/article_6079_b33de0a741ab703e8afa7a63fc2ebfb4.pdf)
- Ali, S., & Shafeeq, N. Y. (2021). Professional development of teachers at higher education level - issues and challenges. *International Journal of Multidisciplinary Educational Research*, 10(7), 67–72. [http://s3-ap-southeast1.amazonaws.com/ijmer/pdf/volume10/volume10-issue7\(9\)/12.pdf](http://s3-ap-southeast1.amazonaws.com/ijmer/pdf/volume10/volume10-issue7(9)/12.pdf)

- Baricaua Gutierrez, S. (2016). Building a classroom-based professional learning community through lesson study: Insights from elementary school science teachers. *Professional Development in Education*, 42(5), 801–817. <https://doi.org/10.1080/19415257.2015.1119709>
- Basnal, G. (2022). Assessment of 21st century skills: Use creative story writing to assess graphs. In S. Chakravarti & B. Boukareva (Eds.), *Advances in educational marketing, administration, and leadership* (pp. 202–221). IGI Global. <https://doi.org/10.4018/978-1-7998-8310-4.ch010>
- Dawadi, S., Shrestha, S., & Giri, R. A. (2021). Mixed-methods research: A discussion on its types, challenges, and criticisms. *Journal of Practical Studies in Education*, 2(2), 25–36. <https://files.eric.ed.gov/fulltext/ED611786.pdf>
- Daza, V., Gudmundsdottir, G. B., & Lund, A. (2021). Partnerships as third spaces for professional practice in initial teacher education: A scoping review. *Teaching and Teacher Education*, 102, Article 103338. <http://dx.doi.org/10.1016/j.tate.2021.103338>
- Department of Education. (2021). *Addressing educational disparities in the United States*. <https://www.ed.gov/disparities>
- Department of Education, Skills and Employment. (2022). *Next steps: Report of the quality initial teacher education review*. <https://www.education.gov.au/quality-initial-teacher-education-review/resources/next-steps-report-quality-initial-teacher-education-review>
- Dinu, C. C., & Chian, M. M. (2023). Uncovering principles for curriculum adaptation: A practitioner and researcher (co)reflexive analysis. *Journal of Ethnographic & Qualitative Research*, 17(1), 16–38. <https://eric.ed.gov/?id=EJ1386862>
- Doe, A. (2021a). Differentiated instruction strategies for teacher training programs. *Educational Psychology Review*, 33(4), 521–537. <https://doi.org/10.47604/ajep.2524>
- Doe, J. (2021b). Impact of differentiated instruction on student learning. *Journal of Modern Education*, 13(2), 45–59. [http://dx.doi.org/10.31703/grr.2020\(V-I\).40](http://dx.doi.org/10.31703/grr.2020(V-I).40)
- Dönmez, A. S., & Ahmet, S. (2022). Peer-coaching based professional development: A sample of a school of foreign languages. *Georgia Educational Researcher*, 19(1), 22–46. <https://files.eric.ed.gov/fulltext/EJ1332366.pdf>
- Eden, N. C. A., Chisom, N. O. N., & Adeniyi, N. I. S. (2024). Cultural competence in education: Strategies for fostering inclusivity and diversity awareness. *International Journal of Applied Research in Social Sciences*, 6(3), 383–392. <https://doi.org/10.51594/ijarss.v6i3.895>
- Farrell, T. S., & Ives, J. (2015). Exploring teacher beliefs and classroom practices through reflective practice: A case study. *Language teaching research*, 19(5), 594–610. <https://doi.org/10.1177/1362168814541722>
- Forsman, L. (2024). Co-teaching literacy strategies for the inclusion of second-language learners: Possibilities for professional development. *Language and Education*, 1–18. <https://doi.org/10.1080/09500782.2024.2348596>
- Gast, I., Neelen, M., Delnoij, L., Menten, M., Mihai, A., & Grohnert, T. (2022). Supporting the well-being of new university teachers through teacher professional development. *Frontiers in Psychology*, 13, Article 866000. <https://doi.org/10.3389/fpsyg.2022.866000>
- Gheysens, E., Coubergs, C., Griful-Freixenet, J., Engels, N., & Struyven, K. (2022). Differentiated instruction: The diversity of teachers' philosophy and praxis to adapt teaching to students'

- interests, readiness and learning profiles. *International Journal of Inclusive Education*, 26(14), 1383–1400. <https://doi.org/10.1080/13603116.2020.1812739>
- Gudeta, D. (2022). Professional development through reflective practice: The case of Addis Ababa secondary school EFL in-service teachers. *Cogent Education*, 9(1), Article 2030076. <https://doi.org/10.1080/2331186X.2022.2030076>
- Hakro, A. N., & Mathew, P. (2020). Coaching and mentoring in higher education institutions: A case study in Oman. *International Journal of Mentoring and Coaching in Education*, 9(3), 307–322. <https://doi.org/10.1108/IJMCE-05-2019-0060>
- Hinojosa, D. M. (2022). Practice what you teach: Onsite coaching and dialogic feedback to promote the appropriation of instructional strategies. *Teaching and Teacher Education*, 111, Article 103582. <https://doi.org/10.1016/j.tate.2021.103582>
- Howell, R. A. (2021). Engaging students in education for sustainable development: The benefits of active learning, reflective practices and flipped classroom pedagogies. *Journal of Cleaner Production*, 325, Article 129318. <https://doi.org/10.1016/j.jclepro.2021.129318>
- Hunter, W. C., Jasper, A. D., Barnes, K., Davis, L. L., Davis, K., Singleton, J., Barton-Arwood, S., & Scott, T. (2023). Promoting positive teacher-student relationships through creating a plan for Classroom Management On-boarding. *Multicultural Learning and Teaching*, 18(1), 79–97. <https://doi.org/10.1515/mlt-2020-0012>
- Hurskaya, V., Mykhaylenko, S., Kartashova, Z., Kushevskaya, N., & Zaverukha, Y. (2024). Assessment and Evaluation Methods for 21st Century Education: Measuring What Matters. *Futurity Education*, 4(4), 4–17. <https://doi.org/10.57125/FED.2024.12.25.01>
- Ishii, Y., & Ogawa, K. (2024). An analysis of school-based management on learning achievement in Senegal primary education. *Educational Process International Journal*, 13(2). <https://doi.org/10.22521/edupij.2024.132.5>
- Ivenicki, A. (2021). Digital lifelong learning and higher education: Multicultural strengths and challenges in pandemic times. *Ensaio: Avaliação e Políticas Públicas Em Educação*, 29(111), 360–377. <https://doi.org/10.1590/s0104-403620210002903043>
- Karacsony, P., Pásztóová, V., Vinichenko, M., & Huszka, P. (2022). The impact of the multicultural education on students' attitudes in business higher education institutions. *Education Sciences*, 12(3), Article 173. <https://doi.org/10.3390/educsci12030173>
- Katsantonis, I., & McLellan, R. (2023). Students' voices: A qualitative study on contextual, motivational, and self-regulatory factors underpinning language achievement. *Education Sciences*, 13(8), Article 804. <https://doi.org/10.3390/educsci13080804>
- Kelly, M. L., Yeigh, T., Hudson, S., Willis, R., & Lee, M. (2023). Secondary teachers' perceptions of the importance of pedagogical approaches to support students' behavioural, emotional and cognitive engagement. *The Australian Educational Researcher*, 50(4), 1025–1047. <https://doi.org/10.1007/s13384-022-00540-5>
- Kim, D. S., Kim, W. J., Kim, J. S., Oh, P. S., Kwon, N., & Choi, S. Y. (2024). Exploring of elementary teachers' learning of responsive teaching. *Journal of Korean Elementary Science Education*, 43(2), 233–251. <https://koreascience.kr/article/JAKO202414372017440.page>

- Kumari, S. (2023, April 10). Exploring the theoretical foundations of culturally responsive teaching in a globalized world. *Vidhyayana – An International Multidisciplinary Peer-Reviewed E-Journal*, 8(5). <http://www.vidhyayanaejournal.org/journal/article/view/1408>
- Landsman, J., & Lewis, C. W. (2023). *White teachers/diverse classrooms: Creating inclusive schools, building on students' diversity, and providing true educational equity* (2nd ed.). Routledge. <https://doi.org/10.4324/9781003448709>
- Li, Q., Li, Z., & Han, J. (2021). A hybrid learning pedagogy for surmounting the challenges of the COVID-19 pandemic in the performing arts education. *Education and Information Technologies*, 26(6), 7635–7655. <https://doi.org/10.1007/s10639-021-10612-1>
- Madigan, D. J., & Kim, L. E. (2021). Towards an understanding of teacher attrition: A meta-analysis of burnout, job satisfaction, and teachers' intentions to quit. *Teaching and Teacher Education*, 105, Article 103425. <https://doi.org/10.1016/j.tate.2021.103425>
- Mallillin, L. L. D. (2022). Teaching and learning intervention in the educational setting: Adapting the teacher theory model. *International Journal of Educational Innovation and Research*, 1(2), 99–121. <https://doi.org/10.31949/ijeir.v1i2.2493>
- Matterson, J. A. (2022). *International teachers' perceptions of mandated curriculum and instructional practices* [Unpublished doctoral dissertation]. Walden University. <https://scholarworks.waldenu.edu/dissertations/12771>
- Muammar, O. M., & Alkathiri, M. S. (2022). What really matters to faculty members attending professional development programs in higher education. *International Journal for Academic Development*, 27(3), 221–233. <https://doi.org/10.1080/1360144X.2021.1897987>
- Mve, J. P. (2021). Revisiting the meaning and causes of higher education massification in Sub-Saharan Africa: Evidence from Cameroon. *Open Journal of Social Sciences*, 9(4), 188–211. <https://doi.org/10.4236/jss.2021.94015>
- Ngubane, T. (2024). Influence of teacher training programs on quality of education in South Africa. *African Journal of Education and Practice*, 9(2), 46–55. <https://doi.org/10.47604/ajep.2524>
- Ofsted. (2021, May 19). *Teaching teachers during COVID-19*. <https://www.gov.uk/government/publications/teaching-teachers-during-covid-19/teaching-teachers-during-covid-19>
- Radovan, M., & Radovan, D. M. (2024). Harmonizing pedagogy and technology: Insights into teaching approaches that foster sustainable motivation and efficiency in blended learning. *Sustainability*, 16(7), Article 2704. <https://doi.org/10.3390/su16072704>
- Rahmawati, Y. (2023). Assessing cross-cultural understanding and intercultural communication skills in EFL classrooms: Challenges, best practices, and perceptions. *Nextgen Education Review Journal*, 1(2), 22–32. <https://doi.org/10.58660/nextgen.v1i2.37>
- Sanfo, J.-B. M. B., & Ogawa, K. (2021). Explaining the rural-urban learning achievements gap in Ethiopian primary education: A re-centered influence function decomposition using Young Lives data. *Education Economics*, 29(3), 269–297. <https://doi.org/10.1080/09645292.2021.1872504>
- Sánchez-Tarazaga, L., Ruiz-Bernardo, P., Viñoles Cosentino, V., & Esteve-Mon, F. M. (2024). University teaching induction programmes. A systematic literature review. *Professional Development in Education*, 50(2), 279–295. <https://doi.org/10.1080/19415257.2022.2147577>

- Sinem, A. D., & Ahmet, S. (2022). Peer-coaching based professional development: A sample of a school of foreign languages. *Georgia Educational Researcher*, 19(1), 22–46. Retrieved from <https://files.eric.ed.gov/fulltext/EJ1332366.pdf>
- So, W. W. M., He, Q., Cheng, I. N. Y., Lee, T. T. H., & Li, W. C. (2021). Teachers' professional development with peer coaching to support students with intellectual disabilities in STEM learning. *Educational Technology & Society*, 24(4), 86–98. Retrieved from <https://www.jstor.org/stable/48629247>
- Sorkos, G., & Hajisoteriou, C. (2021). Sustainable intercultural and inclusive education: Teachers' efforts on promoting a combining paradigm. *Pedagogy, Culture & Society*, 29(4), 517–536. <https://doi.org/10.1080/14681366.2020.1765193>
- Strat, T. T. S., Henriksen, E. K., & Jegstad, K. M. (2024). Inquiry-based science education in science teacher education: A systematic review. *Studies in Science Education*, 60(2), 191–249. <https://doi.org/10.1080/03057267.2023.2207148>
- Tatham-Fashanu, C. (2023). A third space pedagogy: Embracing complexity in a super-diverse, early childhood education setting. *Pedagogy, Culture & Society*, 31(4), 863–881. <https://doi.org/10.1080/14681366.2021.1952295>
- Taylor, L. A., Oostdam, R., & Fukkink, R. G. (2022). Standardising coaching of preservice teachers in the classroom: Development and trial of the synchronous online feedback tool (SOFT). *Teaching and Teacher Education*, 117, Article 103780. <https://doi.org/10.1016/j.tate.2022.103780>
- Utami, P. P., & Viozeza, N. (2021). Teacher work productivity in senior high school. *International Journal of Instruction*, 14(1), 599–614. <https://files.eric.ed.gov/fulltext/EJ1282134.pdf>
- Vaughn, M., Parsons, S. A., & Gallagher, M. A. (2021). Challenging scripted curricula with adaptive teaching. *Educational Researcher*, 51(3), 186–196. <https://doi.org/10.3102/0013189x211065752>
- Westwood, P. (2018). *Inclusive and adaptive teaching: Meeting the challenge of diversity in the classroom* (2nd ed.). Routledge. <https://doi.org/10.4324/9781351061261>
- Wimberly, R. (2023). *The influence of group dynamics on teacher work engagement* [Unpublished doctoral dissertation]. St. Thomas University, Miami Gardens, Florida. <https://www.proquest.com/openview/4428e6052e3b07876a6631fc2732d527/1?pqorigsite=scholar&cbl=18750&diss=y>
- Worline, M. C., & Dutton, J. E. (2021). The courage to teach with compassion: Enriching classroom designs and practices to foster responsiveness to suffering. *Management Learning*, 53(1), 33–54. <https://doi.org/10.1177/13505076211044611>
- Yeh, E., Sharma, R., Jaiswal-Oliver, M., & Wan, G. (2022). Culturally responsive social emotional learning for international students: Professional development for higher education. *Journal of International Students*, 12(1), 19–41. <https://eric.ed.gov/?id=EJ1342906>