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# Beyond Educational Reforms: A Review of Teacher Preparation in Tanzania

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**Abstract.** Changes in the educational sector are essential, particularly for improving the quality of teaching and learning. This study, therefore, intends to explore the teacher preparation practices and how they are shaped by educational reforms. Hence, both empirical and theoretical studies were reviewed. Furthermore, this research study employed a systematic review approach on 42 articles published in a range of 15 years from 2007-2022, in order to explore teacher-preparation practices and how they are shaped by educational reforms. The paper highlights educational reforms and it illustrates those factors that shape education-reform outcomes. It portrays educators, not as individuals with the mandate to make independent choices, but rather as innovative practitioners working in a context characterised by rules and guidelines derived from within and beyond the educational arena. The study recommends that teachers' professional learning should be strengthened in teachers' colleges, in order to ensure that teacher educators are not only aware of innovations emerging daily, due to science and technology, but also to enable their practices to be at the same pace as those technological developments. It implies that educators, as innovative practitioners, should be made part and parcel of the process of structuring the reform program right from the inception of the reform.

**Keywords:** Teachers' instructional practice; teacher educators; school-based professional learning; educational policy

## 1. Introduction

The evolving and differing needs of human beings, which are championed by overwhelming contemporary transformations happening in the world today, necessitate changes to systems in place for the provision of education (Campbell-Barr, 2017). Additionally, as the world transforms in all the spheres of development, so are our needs and the ways through which we interact, share information and learn from each other (Lee et al., 2017; Nelson & Campbell, 2017).

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Learning has been, and is always at the heart of human development, the concern is on the pace and zeal at which we can catch up with what is happening around the world today. Similarly, when it comes to learning, and all the changes happening around the world, the whole process revolves around the teacher.

The inevitability of all these changes, and particularly those happening in technological advances in education, ought to put the teacher in a central position. Teachers are at the heart of the educational process, as having the responsibility for educating the citizens. To be able to provide education to others, teachers are required to get educated themselves, to have a wider contextual understanding of overall cultural training that offers a wide-ranging flexible education. It also requires knowledge acquisition and practical abilities, in order to work as experts in multi-dimensional situations. Because of the changing world of the learners, the influence of new technologies and the changing pressures in the world of work have raised allegations about the kind of teaching and learning that should go on in our schools.

For the best learners' performance to be achieved and realised, there should be appropriate teacher preparation programs, as well as continuous professional learning programs, in order to face the demands of the 21st century. Moreover, the changes happening in education can in no way turn away from involving teachers, consequently, meaningful teacher involvement needs to begin with the initiation of changes in teacher preparation, whether initial preparation or teacher professional learning. Teachers' professional learning, especially the functional ones, do not emerge from a vacuum; rather they involve a holistic approach in terms of teacher-education programs, which are well informed of the current trends in teaching and learning, and are an embodiment of all the spheres of human learning, including the physical, spiritual, social, and psychological aspects.

An effective teacher-education program is key to the preparation of teachers and of qualified teachers. Changes that we would like to see manifested in our children, must first be manifested in our teachers. Such changes must first be reflected in our teacher-preparation programs and in teachers' professional learning. Current literature has indicated the importance of regarding teachers as active mediators in efforts for educational change (Louws et al, 2017). This implies that, if there are efforts to bring about changes in the educational system, then looking at how effectively teachers are prepared or trained, as well as how sustainable is their professional learning, would be the first and foremost thing.

The National Research Council (U.S) (2010) informs us that the effectiveness of any plan intended to scale up outcomes in education depends on teachers who are expected to implement it, their skills, how they joined the field, and how they were prepared. The National Research Council (U.S) (2010), further notes that many questions are being raised concerning how effective teacher-preparation programs are, as well as teachers' professional learning.

This systematic review intends to provide a detailed analysis of teacher-preparation programs offered in teacher-preparation colleges and universities. Both empirical and theoretical studies were selected and reviewed on teachers'

preparation. The need to conduct this review is based on the authors' experiences in the field of education, particularly in colleges and universities. The literature has shown that teacher preparation is featured with inadequate preparation of pre-service teachers and ineffective teacher-professional learning for in-service teachers, which as a consequence have impacted learning outcomes significantly (Mgaiwa, 2018; Namamba & Rao, 2017; Nzima, 2016; Opfer & Pedder, 2011).

Furthermore, the review points out different educational reforms that have happened in teacher-preparation programs in teacher-preparation colleges and universities in Tanzania; and how such reforms have impacted teacher-preparation programs and teachers' professional learning. Lastly, this review has synthesised the implications of these reforms on teachers, teacher preparation and teacher-professional learning. Generally, the review aims to highlight how the educational reforms have informed teacher-preparation practices in Tanzania; and based on the implications of the findings in this study and teacher preparation globally, an alternative approach to teacher preparation and teacher-professional learning may be suggested, in order to meet and reflect the current trends in teaching as a profession. Additionally, this study is expected to ignite a spark on the need to re-examine current practices' preparation in Tanzania, in order to improve the quality of teachers being prepared, and in turn to enhance learning outcomes in schools. The study will be guided by the following questions.

1. What are the educational reforms that have been introduced in Tanzania over the last 15 years?
2. How have the introduced educational-reforms expectations influenced teacher-preparation practices and teachers' professional learning?
3. What has characterised teacher preparation practices in Tanzania over the past 15 years?
4. How do the gaps between the expected and the real teacher-preparation practices affect the implementation of the introduced educational reforms?

## **2. The Literature Review**

### **2.1: Educational Reforms**

Education reform implies modifications made to the existing education system, as a way of addressing societal changes. Educational reforms have been used as a tool to transform societies; they are centralised and can use top-up, bottom-up, or parallel approaches. Educational reforms can be influenced for many reasons, among them, being economic, political and even social reasons, brought forth by globalisation (Rodriguez-Segura & Mbiti, 2022; Zajda, 2021). Globalisation is defined as a culturally constructed multi-faceted design that reflects inter-relationship and connections among all the core aspects of culture, which is comprised of politics, ideology, the economy, languages, consumer goods, education, modes of communication, travel, technology, and all the people of the world" (Zajda, 2018).

It encompasses the urge for uniformity in various spheres of life, such as communication, notions of gender, equality, human rights, justice and even the global notion of citizenship. National states undergo economic restructuring, which shapes the education landscape, resulting in policy and curriculum reforms usually to meet the so-called "global quality standards". In the African context, in

which a huge chunk of the education budget is donor-driven, donors tend to have the upper hand in determining the education policy. The literature indicates that educational reforms have largely been influenced by western ideologies, especially those from the World Bank (Hardman et al., 2012; Zajda, 2021).

Taking Tanzania as an example, before independence, the mother tongue was used as the medium of instruction in lower primary (i.e., Grades one and two); this was in line with the 1953 UNESCO statement that encouraged the use of the mother tongue in primary education for reasons that children learn better in their mother tongue. English was introduced as a subject in grade three, and from grade five, English was used as a medium of instruction.

After independence, the language used for instruction in primary schools in Tanzania changed to Kiswahili, the aim being to disengage from neo-colonial domination and to focus on national unity; the language, therefore, was viewed as a powerful tool to unite people (Rodriguez-Segura & Mbiti, 2022). Therefore, a shift in the dominant ideology, which had existed before independence, whereby those who could speak English were praised after independence; and those who spoke English were perceived to be suffering from colonial hangovers. However, the language of instruction and examination at the secondary level continued to be English.

The implication is that students use a foreign language to demonstrate evidence of learning which can be challenging, resulting in unsatisfactory learning outcomes. Thus, educational reforms do not just happen, they happen for a specific reason, in order to address a certain agenda, which could be political, social, or economic. How these reforms revolutionise teaching and learning is the focus of this article.

## **2.2 Teacher Preparation**

Teaching is defined as a multi-dimensional process that needs sufficient knowledge acquisition and comprehension in wide-ranging degrees, as well as the capacity to yield, integrate, and relate the acquired knowledge in different situations, under varying conditions, and with a varied diversity of groups and individuals (Hollins, 2011). This means that teaching requires smart personnel, who are expected to enter this multi-dimensional process with a clear understanding of all the essential issues in teaching. As Greenberg et al. (2013) insist, bringing new life to teaching requires that we begin initially by focusing on those who gets involved, and what kind of training is provided.

This brings about a prevailing notion of putting the teacher at the centre of the teaching profession; furthermore, it necessitates the effective preparation of a quality teacher for quality teaching. In quality instruction, the acquired knowledge is made practical in varied means and in ways that provide unbiased accessibility and chances of building upon and extending learners' previous knowledge, and thereby enabling their acquisition, and the construction of new knowledge. To have quality teaching, effective teacher-preparation programs should be put into place. Teacher-preparation programs should be prepared by following the minimum standards set by the National Council for Teacher-

Education Certification, but the most important aspect should be to prepare candidates with the ability to deliver quality instruction to their learners (Hollins, 2011).

Moreover, Liu (2015), posits that while the quality of a teacher has influenced the quality of education, educational policy-makers worldwide are concerned about the quality of teacher-preparation programs. This means that policymakers should be well informed on all the issues related to teacher-preparation programs, in order to incorporate such issues in policies, and to ensure the effectiveness of the programs, so that the quality of teachers produced from those programs is satisfactory. Consequently, it is important to begin addressing the challenge of unequal distribution of quality education in public schools (Hollins, 2011).

Feuer et al. (2013) noted that forthcoming teachers are founded on Teacher-Preparation Programs (TPPs) in terms of their knowledge of pedagogical strategies, early exposure to real-world classroom experience, as well as the subject matter. Although proficiency in teaching, as in any other profession, is fashioned considerably by practical experiences and continuous professional learning, the teachers' preparation programs should provide a significant contribution to the quality of teaching. Therefore, reflecting on the value and efficiency of TPPs is essential for improving teaching and learning practices (Feuer et al., 2013).

Although TPPs should be effective for quality teachers to be produced, the need for teachers to engage in life-long learning arises, so that teachers can sustain the quality that the TPPs inculcated. Therefore, here comes the necessity for teachers' professional-learning strategies that would be friendly for teachers to develop more, and to sustain their newly acquired qualities.

### **2.3 Teacher-Professional Learning (TPL)**

TPL is the process by which teachers learn. They learn how to learn and transform their knowledge, skills and competence into practice (Komba & Mwakabenga, 2020). In addition, TPL can also be defined as the learning system, in which a teacher, as a leader, learns from experts, mentors and other teachers, and shares the responsibility for their students' success (Darling-Hammond et al., 2017). Teachers' Professional Learning has further been defined as a continuous improvement of teachers' knowledge skills and attitudes, in order to increase teachers' learning, as well as that of their students' learning (Akiba & Liang, 2016).

In the light of the definitions of TPL from the literature, TPL is at the heart of teaching and learning. Consequently, all teachers need to be engaged in TPL, whether they are teachers who received at least some initial teacher education, or teachers who are in the process of deepening their knowledge and refining their skills (Timperley, 2011). The engagement of teachers and teacher educators in TPL should be the essence of improving students' and student teachers' learning, to the extent that they can acquire knowledge, skills and attitudes, in order to face challenging situations in teaching and learning.

Furthermore, teachers should engage themselves in professional learning activities [n order to improve their knowledge, pedagogical instruction, and students' learning (Akiba & Liang, 2016). Additionally, "teachers are expected to develop professionally throughout their career, due to the constant changes occurring in teachers' everyday contexts, as well as the changing policies and innovations in the field of education" (Louws et al., 2017). This implies that teachers should be open-minded, in order to engage themselves in everyday learning, due to daily innovations that influence the learning of their students or pupils.

According to Akiba and Liang (2016), there are six types of professional-learning activities (PLA) , in which teachers can themselves engage. **Table 1** explains the six PLAs, as well as their corresponding definitions:

**Table 1: Types of Professional Learning Activities**

No.	Name of PLA	Definition of PLA
i.	Professional Development Program	Is an activity organised with the aim of learning and improving teaching and student learning (e.g. workshops, seminars, training)
ii.	Teacher Collaboration	Is a continuing activity, such as a study group, a professional learning community, teacher network, group-action research, and any other forms of interaction to develop teaching and learning, and teacher co-operation, which can formally be planned by professional developers, or informally practised by teachers.
iii.	University or College Courses	In education, these may be taken for a degree, or for professional growth credits.
iv.	Professional Conference	This is an opportunity for a teacher to present his or her practice or research, as well as to learn presentations about new thoughts for teaching or learning.
v.	Informal Communication	Refers to planned or unplanned interactions with colleagues, or friends for their professional learning of teaching apart from the previously listed activities.
vi.	Individual Learning Activities	Refers to activities a teacher engages in himself or herself outside the previously listed activities, such as reading professional journals and analysing students' work.

Thus, becoming a teacher entails not only the growth of a professional character, but also the conception of professional understanding and practice through continuing professional learning (McCormack et al., 2007). This shows the importance of teachers' professional learning and that, in order to become a teacher, one must engage in continuous professional learning activities. Through engagement in TPL activities, a teacher stays updated with the educational innovations that are emerging daily in the current world of science and technology.

### 3. The Methodology

This study employed a systematic literature-review design in which a summary of the results of several studies was synthesised into related themes, which formed different sub-titles among the findings. The choice of the research design was based on its ability to consider all the summarised shreds of evidence by evaluating the bias in every study. The synthesised data were obtained from digital databases, such as online journals and websites. The study intended to explore teachers' preparation practices, and how they are shaped by educational reforms. Consequently, both empirical and theoretical studies were selected and both qualitative and quantitative studies were considered.

The selection of the relevant literature for the study involved screening scholarly work and coding these. The screening criteria used were to identify papers that were not more than 15 years old in the field of teachers' professional learning, as well as those on educational reforms. These papers were read and used to develop an understanding of teachers' professional learning and reforms. The second stage was to screen studies of teachers' professional learning in Tanzania, as well as any literature on educational reform in Tanzania.

These papers were also read and coded and categorised following the research questions. The third stage was to synthesise the information from each category and to highlight the emerging themes. In the final stage, we interpreted the identified themes and concluded the research study.

#### 3.1 The eligibility of the data sources

The inclusion criteria refer to the article elements that are important for eligibility and for the inclusion in a literature review. These are the key features for the inclusion of the targeted articles or sources of data that the investigators used for their research question (Patino & Ferreira, 2018). Regarding eligibility criteria, the screening of the sources of data was based on the date of publication of the articles or papers, the subject of interest, the research questions and the topic of the study.

#### 3.2 The reliability of the data sources

The data sources imply the identification of the sources of information for the review (Hempel et al., 2016). As Hempel et al. (2016) have pointed out, the identification of the articles, the books and the papers that were used in this armchair research, was based on the credible and trusted sources, such as the electronic databases, as well as the information published in academic journals, reports, and other credible publications (Hempel et al., 2016).

In the first phase, the search included studies on educational reforms, teachers' professional learning and teacher preparation globally, whereby 593 articles were generated through the database, of which 216 records, based on both duplicates and other reasons, the criteria were removed before the screening. The remaining 377 records were screened, and 231 were excluded, leaving only those that met the inclusion criteria that were read in their entirety. Out of the remaining 146, title/abstract records, which were considered for the retrieval of 64 records of titles/abstracts that had not yet been retrieved.

A total of 82 titles /abstract records were assessed for eligibility, of which 40 records of titles /abstracts were excluded, based on the subject of interest, the research question, the age ranges (10> years) and for other reasons. The second phase included categorising articles about the research questions; and in so doing, 42 articles on reforms, teacher practices, and teachers' professional learning in Tanzania and beyond, were generated and used to inform this study.

The synthesis included the organisation of evidence into consistent categories, as well as the summarisation of the findings across the acknowledged studies within the corresponding themes that comprised the review. The analysis of the reviewed data was done by using the meta-analysis, in which the findings or the results from several similar studies, responding to the research question, were combined or synthesised. The process involved making a summary of the empirical evidence, based on the eligibility criteria for inclusion and exclusion pre-specified. Then, the extracted results were evaluated and interpreted.

The inclusion and exclusion of the searches from the databases followed the PRISMA flow diagram, as shown below. The choice of the PRISMA flow diagram was based on its efficiency in creating a summary of the screened published articles that were identified and recorded from different stages of the review and visually depicted the study flow, as the review process was being carried out.

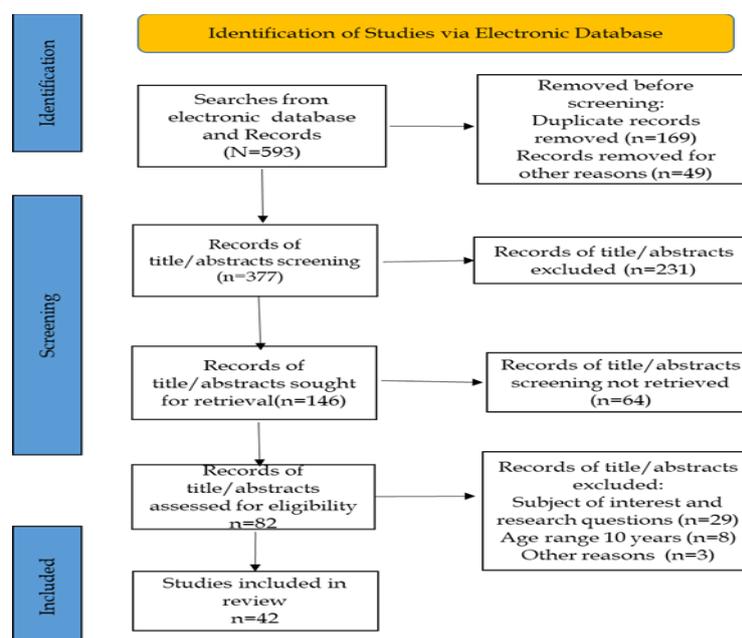


Figure 1: PRISMA flow diagram which includes database searches

The analysis of 42 articles related to the focus of this review indicated three categories that are also considered as the main research areas in this study. These include: 1. Educational reforms, 2. Teachers' preparation and 3. Teachers' Professional Learning (TPL). **Table 1** illustrates the distribution of the analysed articles under each category.

**Table 2: Articles categorised in this review**

	Category	Count	Important Aspects Noted
1	Educational reforms	21	Implementation of a competence-based curriculum characterized by inadequate training, short workshops, and seminars.
2	Teacher's preparation	09	Pre-service Teacher Education and Colleges practices in teacher preparation
3	Teacher Professional Learning (TPL)	12	School-based professional development, workshops, improvement of teacher educator's capacity and teachers' instructional practices
		Total = 42 articles	

#### 4. The Findings

This section ought to answer the research questions (1 - 4) as they address the main ideas that follow from each question.

##### 4.1 Question 1. What are the educational reforms that have been introduced in Tanzania over the last 15 years?

The response to this question presents the educational reforms introduced in Tanzania over the last 15 years. Thus, the responses consist of a presentation of the findings, which involve Policy Reforms in Tanzania, the Competence-Based Curriculum (CBC), the Educational Policy of 2015, as well as the School-based Professional Development Program (SbPDP).

###### 4.1.1 Educational Policy Reforms in Tanzania

As a response to the different economic, political, societal, and technological changes and the ever-changing human needs, there have been many educational policy reforms in Tanzania's history since the time of independence to the present, which were intended to address the different issues, including the educational goals of the time. These educational policy goals included the following: to increase accessibility to education, to shun away from the colonial legacy, and to link education with economic and social development, in order to meet peoples' needs and reflect on the current practices, which are informed by research.

Although there have been many educational-policy reforms in Tanzania, as pointed out earlier, this review intends to focus its arguments on the reforms that took place between the years 2005 and 2022 in Tanzania. However, some references may be made to those that took place before the specified years - for clarity and where a historical background is required. Below we highlight the educational reforms that have taken place in Tanzania.

#### 4.1.2 *The Competence-Based Curriculum (CBC)*

The competence-based curriculum introduced in 2005, followed the CBC, which focused on the achievement of knowledge, rather than on what individuals can do after completing a course of study. CBC is aimed at orienting learners towards the acquisition of skills, which should enable learners to be able to carry out specific sets of actions (Nkya et al., 2021). Additionally, Komba and Mwandaji (2015), noted that CBC equips learners with skills to learn, learning how to learn, performing tasks, and working in collaboration with one another.

The Competence-Based Curriculum followed an understanding of the fact that the CBC educational system was unable to yield graduates with the necessary skills that are vital for social, academic, and economic growth in the 21<sup>st</sup> century. Based on this understanding, the educational system needed significant reform, in order for schools to produce graduates with the knowledge, skills and those that can reason critically and participate in solving the diverse economic and social problems arising in society (Hamilton et al., 2010).

Competence-based education (CBE) is perceived as an approach that can develop individuals' abilities and capacities, which would enable them to apply those meaningfully learnt knowledge and skills in solving different economic and societal problems. This particular approach responds to alarms about the employability, competence and capability of the school graduates that can be achieved by learners (Maodzwa-Taruvinga & Cross, 2012). These changing needs of the world prompted reforms in teacher education, thereby intending to change pedagogical practices that inform teaching and learning of CBC adopted in 2007 – in order to prepare graduates with the capacity to contribute to the world's socio-economic growth, as pointed out by the Tanzanian Institute of Education (2013). However, tutors' understanding of competence-based curricula contradicted their instructional practices.

Their instructional practices were more teacher-centred, and theoretical, rather than putting the learner at the centre of learning, as emphasised by the competence-based approach, thereby leading to a discrepancy between teachers' preparation and teachers' practices. The government of Tanzania developed a teacher-professional learning strategy, in order to tackle this discrepancy. In the said teacher-professional strategy, teachers were required to attend three days of workshops on CBC. These workshops took place in phases; they started with preschool and lower primary (Grades 1 and two) and with teachers commonly referred to as ECD teachers.

However, the TPL pace did not match the speed at which CBC was being rolled out in schools. Similarly, the development of CBC textbooks for students and CBC teacher guides failed to catch up with the speed, for instance, when learners reached grade four; since the CBC textbooks of their level were not yet published (Komba S.C. & Mwandaji, 2015; Nzima, 2016).

Furthermore, Nzima (2016) asserted that CBC curricula called for a transformation in the way learners are assessed when translating to changes in the format of national exams. With the content-based curriculum, national

primary school mathematics exams were multiple-choice exams; but with the advent of CBC a section on “word problems” was added to the afore-mentioned national exams. Another example of how the curriculum reforms shaped the teaching and learning landscape can be witnessed in the language and literacy subject, whereby listening for comprehension became examinable for the first time in the year 2021.

However, the listening aspect was not yet standardised; and the invigilators were the ones who had to shoulder the responsibility of reading the comprehension passage to the candidates; and this meant that the accent, the reading speed and the content differed from one examination centre to the next.

Additionally, the study carried out by Nkya et al. (2021), observed that secondary school teachers' instructional practices did not reflect what they had been taught in the workshops and seminars that they had attended in well-designed and furnished environments. This implies that the workshops and seminars did not consider the accessibility or the adequacy of classroom instructional resources and the teachers' working environment, including those schools with overcrowded classrooms.

In line with the study done by Vavrus (2009), on restructuring pre-service and in-service teacher education and teacher preparation in Tanzania and beyond, it was pointed out that there was a need to consider local cultural aspects and those educational conditions that influence instructional practice.

Nzima (2016) asserted that, since the introduction of CBC in Tanzania, particularly in teachers' colleges, teacher educators had hardly attended workshops and in-service training on the implementation of CBC. Furthermore, it was noted that based on teacher educators' observation, teachers had attended seminars and workshops characterised by short duration, ranging from one day to a week, and facilitators, who themselves seemed to be having difficulties in understanding CBC; since they could not address the issues raised by the workshop participants' adequately (Namamba & Rao, 2017).

#### *4.1.3 The Educational Policy of 2015*

The recently introduced educational policy reform of 2015 has comprehensively pointed out many issues facing the education sector in Tanzania. The document calls for the following issues: free education in primary school to scale up enrolment in primary education, allowing all children, regardless of background to have access to quality basic education and vocational skills education. Furthermore, regarding the improvement of teachers' education, the goal is two-fold; firstly, the policy focuses on the development of new teaching schools; and secondly, the policy focuses on improving the capacity of the existing teachers' preparation colleges.

Additionally, the Tanzania Institute of Education (2018) shows that the government intends to officiate the cadre of specialised pre-primary teachers, who are already being prepared in teachers' preparation colleges. The policy furthermore allows teaching assistants, who were trained in Early Childhood

Care and Education (ECCE) to be employed as pre-primary teachers, and who later could upgrade their qualifications through teachers' professional learning, so that they become officially qualified teachers for (ECCE). Additionally, the policy has recognised pre-primary learning, in which it makes clear that a child will be enrolled in primary one (Grade/class one) after having attended pre-primary for at least one year, and after having acquired basic learning in reading, writing and mathematical skills.

The government has been working towards improving the quality of learning at the pre-primary level, which includes revising the pre-primary curriculum and teachers' guides and textbooks (Tanzania Institute of Education, 2018). Based on the Tanzania Institute of Education (2018), the government is strategising to make sure that a good number of children living with disabilities of all sorts are enrolled in mainstream education systems. It also ensures mechanisms for screening, in order to identify those children with hearing and sight disabilities are put in places where steps to support those identified with minor hearing loss and sight can be assisted.

#### *4.1.4 School-based Professional Development Program (SbPDP)*

SbPDP is a program that recommends the establishment of a systematic teacher-professional growth approach. It holds a countrywide school-based delivery model that places teachers' professional learning in the classroom, at the school and cluster level. It is a nationwide framework that facilitates the development of teachers' competences, which is all-encompassing in terms of teachers' preparation and teachers' professional learning. Teachers have agreed on a code of professional conduct being supervised by the national teacher-service commission (Madalińska-Michalak, 2019).

Hardman (2017) noted that the Ministry of Education initiated the piloting of the new school-based model for teachers' professional development. This was done in the seven district councils across regions in the Tanzanian mainland. The new model was implemented by using the baseline study, intending thereby to employ the strategy nationwide. In this model, a mixed design of a six-month, school-based professional development program for teachers has been initiated, in which teachers receive a one-week training facilitated by college-teacher educators.

Following the training, learners undertook self-study modules in pedagogical skills in mathematics and English. These modules stressed a dynamic teaching model, which encourages problem-solving and interactive activities, as well as high-quality dialogue in group-based and one-to-one situations, as well as whole-class discussions between teachers and pupils. In residential training by college-teacher educators, a demonstration to teachers on how to plan group-work activities was offered. It was considered necessary for the activities to be purposive, well-structured, and suited to the learning task.

In addition, the demonstration included the training of pupils on how to work collaboratively and to assign roles and tasks. Additionally, the training was designed in a way that would enable teachers to be coached and observed in the classroom setting once in a while by teacher-educators, supervisors and head

teachers trained by using a uniform observation schedule, and mentoring teachers (Hardman et al., 2015). The general findings gained from observations made in the classroom showed those teachers involved in the school-based model of professional learning; since they exhibited notable differences in the way they could use effective teaching behaviours.

Such behaviours are probing for previous knowledge, accurate delivery of material, emphasising important points throughout the lesson delivery, creating a conducive learning atmosphere in the classroom, and assigning paired or group work, the use of plenary issues in wrapping up a lesson, and consolidating and extending the learning process.

Moreover, based on stakeholders' observations, made during interviews, it was noted that the pilot on the school-based model was appraised at the district and school levels. In that sense, it had impacted significantly teachers' pedagogical practices, particularly those that had received the necessary training. The findings also indicated that teachers' involvement at the school and cluster level ensured that teacher education was part of the wider strategy of developing teachers' capacity – a capacity that supports all education actors, such as district-education officers, trainers, head teachers and teachers in a cost-effective approach in a resource-constricted environment like that of Tanzania (Hardman, 2017).

#### **4.2 Question 2: How have the introduced educational reform expectations influenced teachers' preparation practices and teachers' professional learning?**

##### *4.2.1 How have current practices in teacher education and professional learning in Tanzania been affected amid educational reforms?*

According to Namamba and Rao (2017), globally there is little information about teacher educators' preparation and their professional learning. Similarly, Chambulila (2013) observed that little attention has been given to research and educational literature on the teaching profession and on teacher educators, in Tanzania, as a result, this situation has impacted negatively on teacher education and teacher preparation, which consequently has affected students' learning outcomes in schools. In recent years, Tanzania, like other East African Countries, such as Kenya, has notably recorded high levels of enrolment in primary schools, which became vital to ensure that learning outcomes are enhanced and not affected by the increasing numbers of learners.

To achieve quality education, it has been noted that teachers are important in this endeavour; Consequently, there have been reforms put in place for teacher education. It is noticeable that some creativities are needed to increase the quality of teacher educators in Tanzania and to improve the quality of teacher education and education in general. The recently implemented educational reforms, which stress learner-centred and competence-based education demand considerable changes in both the preparation and in the professional learning of teacher educators (Avalos, 2011).

These reforms aim to develop teacher educators' capacity and to improve teachers' instructional practices, in order to link the gap between theory and practice noted in initial teacher education, and also in continuous professional learning (Hardman et al., 2012). Furthermore, it has been noted by Hardman et al. (2012) that, to achieve classroom pedagogy, which is an important variable in improving learning outcomes, in many developing countries, including Tanzania, the major challenge has been teachers' availability and teaching and learning competences.

Teacher preparation is characterised by lecturing from trainers without, or with inadequate experience and skill in primary education, little supervised practical teaching as a result, thereby creating a gap between theory and classroom practice (Westbrook et al., 2013). Equally, continuing teacher professional learning has been noted to be poor in terms of its quality and transferability in classroom situations.

The implications of low-quality teacher preparation and teachers' professional learning translates into a practice of memorisation and narration methods of teaching and learning. Pedagogical practices are mainly of teacher-centred features, with the use of chalk/whiteboard, teacher-dominated explanations and recitation with repetition responses from learners. As a result, instructional practices of this nature are less effective in promoting deeper understanding in terms of conceptual learning, critical thinking, problem-solving and corroborative skills (Ngware et al., 2014).

Consequently, those weaknesses that have been noted in teacher preparation, teacher education and continuing professional learning necessitate the need for the renovation of teacher education, teacher preparation and continuous teacher professional learning, in order to come up with a system that leads to the establishment of a long-term framework for teachers to improve and update those pedagogical competences that would enable them to be able to navigate in the 21<sup>st</sup>-century's educational needs.

#### **4.4 Question 4. How do the gaps between the expected and the real teacher preparation practices affect the implementation of the introduced educational reforms?**

##### *4.4.1 Gaps in TPL*

Teacher-preparation programs in sub-Saharan Africa (SSA) have been condemned for the lack of attention to learning, and to teach in real classrooms, which limits the possibility for pre-service teachers to effectively introduce learner-centred pedagogy in primary-school classrooms. In order to address this problem, countries, such as Ghana, as well as Tanzania, have implemented a teacher-education reform to incorporate practical issues (Akyeampong, 2017). Furthermore, researchers have argued that despite the structural changes to teacher education that brought in the practicum, learner-centred pedagogy has not become introduced in pre-service teachers' classroom practice.

It has been suggested by researchers that the problem might be attributed to teacher educators' instructional practice (Namamba & Rao, 2017; Swai et al., 2022). Teacher education came into the focus for reform, after being judged by policy-makers and reformers that it over-emphasised subject-content knowledge at the expense of pedagogical-content knowledge (Akyeampong, 2017).

Furthermore, a recent review of teacher-preparation programs concluded that an enormous majority of such programs were inadequately preparing the nation's teachers (Dunn et al., 2013; Sanga, 2017). Despite the incorporation of practicum as a reform strategy, the programs are still condemned for preparing teachers that are not competent to meet the international standards of quality teachers. Hence, it is recommended by Namamba and Rao (2017) that, various improvements are needed to ensure the quality of teacher educators in Tanzania, and to enhance the quality of teachers and education in general.

Additionally, the currently implemented educational reforms, which emphasise learner-centred and competence-based education necessitate significant changes in both the preparation and in the professional learning of teacher educators (Namamba & Rao 2017). Mockler (2022) posits that policies and processes centred on teachers' professional learning, because of the recently established standards and their prevailing perception of the teaching profession, constitute socio-cultural, social-political, and the material-economic construct that structures teacher-professional learning practice. The literature seems to indicate that political aspects and the quest for universal standards spearhead, not only teacher education, but teacher-educators' professional learning; and consequently, changes in the education system are necessary.

## 5. Discussion

Studies that have been reviewed on the research topic point out how the implementation of educational reforms, teacher preparation and teachers' professional learning are being conducted, in order to improve teacher educators' capacity and to enhance teachers' instructional practice. Based on what has been noted in different studies, teacher educators and teachers' instructional practices have been impacted significantly as observed in studies. It has been noted by Fullan (2016) that changes in education are determined by what teachers think and by what they can do; thus in instituting any educational reform, effective teachers' continuous professional learning has to be taken into account.

Also, it has been noted by studies that there has been inadequate preparation for innovations to be implemented. This observation concurs with that of Ucan (2016), who posits that it is significant to think about making reforms in teaching and learning practices before educational innovations are introduced, in order for the implementation to be successful. This is because it has been noted that most teachers are faced with many challenges when implementing educational reforms. Professionally this implies that, there is a need to prepare teachers in different aspects of learning, including diverse learning environments, so that when innovations or changes are being introduced, teachers are ready to adapt to any new changes without much resistance.

In different studies, it has been argued that successful education systems in the world are those which devote their resources to teacher education and teachers' professional learning (Novozhenina & López, 2018). This argument corresponds with what has been noted in the employment of the competence-based curriculum in teachers' colleges, which featured inadequate training and short workshops and seminars on the implementation of CBC, due to the resource-constricted environment. However, it has been observed in studies that in-service teacher professional learning provides teachers with opportunities to gain new skills, knowledge and teaching techniques, which empower them to familiarise themselves with new situations.

This perception corresponds with what has been pointed out by studies that there is a connection between continuous teacher-professional learning, improvement in instructional practices and students' learning outcomes (Yangambi, 2021). Although, Archibald et al. (2011) noted that teachers' participation in professional learning programs is greatly hindered by inadequate support from employers and little space, as a result of a constricted work schedules. Similarly, it has been emphasised that teachers' continuous professional learning is restricted by inadequate resources, such as essential teaching materials, and inequalities, which eventually hamper any efforts towards educational improvement (Darling-Hammond, et al., 2017). These factors are important in the sense that they inform leaders in the education sector and policymakers to reform teacher-professional learning practices, in order to improve student-learning outcomes.

Scholars seem to indicate that in instituting educational change the problem does not necessarily result from the quality of reform or innovation. But rather via the approach through which the innovation or reform is being introduced. Thus, the inadequacy of a properly planned environment to help teachers acquaint themselves with the reform being instituted may lead to the failure of the reform, regardless of its quality. Based on this understanding, the successful implementation of CBC in Tanzania depends on how teachers were previously prepared and how they are continuously engaged in teacher-professional learning.

Evidence from studies shows that there is a connection between pedagogy and learning outcomes, central to achieving effective pedagogy through initial teachers' preparation and engaging teachers in continuous professional learning (Hardman, 2017). Furthermore, Hardman et al. (2012) stressed the need to prepare a framework for teacher educators to participate in lifelong professional learning, and to advance their pedagogical knowledge, attitudes, and skills. This framework will eventually support them in improving their instructional practices and students' learning outcomes consecutively. According to Hardman et al. (2012), there is a necessity to make improvements in teacher education and the preparation of teacher educators in Tanzania.

The current landscape is characterised by limited pedagogical practices in large groups of trainees, a context which does not speak to education reforms in the country.

UNESCO (2015) noted that there are less than 75% of teachers who are trained in following national benchmarks in developing countries. Likewise, opportunities for the provision of continuous professional learning are very slim; and where it exists, it is of poor quality. Thus, not being reflected in classroom practice, characterised by little follow-up; and it is predominantly found in urban areas (Hardman et al., 2012). Controversially, evidence emerging from studies suggests that the quality of education is generally achieved through teachers' engagement in the continuous evaluation of instructional practices in the classroom (UNESCO, 2015).

Most of the studies done on CBC reform in Tanzania have concentrated largely on the operation of CBC in primary and lower secondary education. These studies are very informative in nature of what is happening with the implementation of CBC, whether good or inadequate. However, few studies of this nature have focused on teacher education and on the preparation of teacher educators in Tanzania. It has also been noted by Nzima (2016) that when these few studies are observed, they show evidence that their intention is on examining whether a student-centred approach is being used in teaching and learning.

Those studies that have been conducted in Tanzania have explicitly investigated the level at which there have been successes or failures in the implementation of the educational reforms. Based on these studies, we discern a gap between educational reforms, and the implementation of those reforms to meet the expected outcomes. For instance, since CBC was introduced in Tanzania, a limited transformation has taken place in teacher education in terms of how teachers are being prepared in teacher colleges.

Furthermore, those lessons from the evaluation of the school-based model indicate that school-based teacher professional learning has a practical impact on enhancing primary school teachers' competence to deliver quality education. Subsequently, Pettersson and Rawle (2015), noted that the lessons resulting from the pilot study have been assimilated into the education quality-improvement model (EQUIP) that was initiated in 2014 and the four-year school-based teachers' professional learning program.

Being a systematic review, this research was limited to research articles published between 2007 and 2022, due to the insufficient number of papers published in this period, especially in the local context. Therefore, the review did not only consider publications from Scopus and the web of science-indexed journals. Rather, all publications from well-reputed journals within the scope and focus of this review were considered. Despite the systematic review being time-consuming, this review was worth performing, because of the knowledge that it brought to contribute to the body of research, especially on the educational reforms in teacher education.

## **6. Conclusion**

The reviewed studies seem to highlight the government's efforts in ensuring that citizens get the kind of education that would not only enable them to master the environment in their local context, but also globally. However, this complex

undertaking of the struggle to strike a balance between the local and the universal results in embarking on a journey with the limited knowledge necessary for the success of the journey. The studies have also brought us to foresee the agency that educators draw upon to ensure that despite the existing challenges that teaching and learning actually take place – it is then that we witness programs like a three-day course to introduce educators to the basics of CBC.

Although the ideal would have been a course that would last for more than three days and perhaps be coupled with mentorship and follow-up, in the absence of such programs for some reasons, one of them being economic hardship, educators have created a three-day training program. For educational reforms to yield positive teaching and learning outcomes, we see a need for going beyond the reforms as stipulated in documents, such as the education curriculum, or the educational policy.

To think and plan how the reforms speak to the vision of the country and to prepare a conducive environment that would support the operation of the reforms. Going “beyond” requires acknowledging the significance of the global educational standards, but also the planning of a delivery strategy, which is contextually relevant and in line with the pace of the economic growth of a nation. Although, based on studies, it is observed that there have been deliberate efforts taken by the government to improve teacher educators’ capacity, in order to enhance teachers’ instructional practice. These efforts have been affected significantly by the inadequacy of such resources. Consequently, knowledge and skills acquisition have been considerably hampered. Thus, in turn, has led to minimal or negligible enhancement of the learning outcomes for learners.

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### **7. References**

- Akiba, M., & Liang, G. (2016). Effects of teacher professional learning activities on student achievement growth. *The Journal of Educational Research*, 109(1), 99–110. <https://doi.org/10.1080/00220671.2014.924470>
- Akyeampong, K. (2017). Teacher Educators’ Practice and Vision of Good Teaching in Teacher-Education Reform Context in Ghana. *Educational Researcher*, 46(4), 194–203. <https://doi.org/10.3102/0013189X17711907>
- Archibald, S., Coggshall, J. G., Croft, A., & Goe, L. (2011). *High-Quality Professional Development for All Teachers: Effectively Allocating Resources*. Research and Policy Brief. (p. 23). <http://www.tqsource.org>.retrieved
- Avalos, B. (2011). Teacher professional development in Teaching and Teacher Education over ten years. *Teaching and Teacher Education*, 27(1), 10–20. <https://doi.org/10.1016/j.tate.2010.08.007>
- Campbell-Barr, V. (2017). Quality early childhood education and care – the role of attitudes and dispositions in professional development. *Early Child Development and Care*, 187(1), 45–58. <https://doi.org/10.1080/03004430.2016.1150273>
- Chambulila, C. (2013). *Quality enhancement in teacher education: Tanzanian teacher educators’ conceptions and experiences*. Abo Akademi University Press.

- Darling-Hammond, Hyler, M. E., & Gardner, M. (2017). *Effective Teacher Professional Development* (p. 76). Learning Policy Institute.
- Dunn, K. E., Airola, D. T., & Garrison, M. (2013). Concerns, Knowledge, and Efficacy: An Application of the Teacher Change Model to Data Driven Decision-Making Professional Development. *Creative Education*, 04(10), 673–682. <https://doi.org/10.4236/ce.2013.410096>
- Feuer, M. J., Floden, R. E., Chudowsky, N., Ahn, J., & National Academy of Education. (2013). *Evaluation of teacher preparation programs: Purposes, methods, and policy options*. National Academy of Education.
- Fullan, M. (2016). *The NEW meaning of educational change* (Fifth edition). Teachers College Press.
- Greenberg, J., McKee, A., & Walsh, K. (2013). *Teacher Prep Review: A Review of the Nation's Teacher Preparation Programs*: National Council of Teacher Quality.
- Hamilton, M., Mahera, W. C. M., Mateng'e, F. J., & Machumu, M. M. (2010). *A Need Assessment Study of Tanzania Science Education*. The Economic and Social Research Foundation(ESRF).
- Hardman, F., Abd-Kadir, J., & Tibuhinda, A. (2012a). Reforming teacher education in Tanzania. *International Journal of Educational Development*, 32(6), 826–834. <https://doi.org/10.1016/j.ijedudev.2012.01.002>
- Hardman, F., Abd-Kadir, J., & Tibuhinda, A. (2012b). Reforming teacher education in Tanzania. *International Journal of Educational Development*, 32(6), 826–834. <https://doi.org/10.1016/j.ijedudev.2012.01.002>
- Hardman, F., Hardman, J., Dachi, H., Elliott, L., Ihebuzor, N., Ntekim, M., & Tibuhinda, A. (2015). Implementing school-based teacher development in Tanzania. *Professional Development in Education*, 41(4), 602–623. <https://doi.org/10.1080/19415257.2015.1026453>
- Hempel, S. (2016). Systematic Reviews for Occupational Safety and Health Questions: Resources for Evidence Synthesis . <https://doi.org/10.13140/RG.2.1.2597.0167>
- Hollins, E. R. (2011). Teacher Preparation For Quality Teaching. *Journal of Teacher Education*, 62(4), 395–407. <https://doi.org/10.1177/0022487111409415>
- Komba, S. C., & Mwandaji, M. (2015). Reflections on the Implementation of Competence-Based Curriculum in Tanzanian Secondary Schools. *Journal of Education and Learning*, 4(2), p73. <https://doi.org/10.5539/jel.v4n2p73>
- Komba, S., & Mwakabenga, R. (2020). Teacher Professional Development in Tanzania: Challenges and Opportunities. In H. Şenol (Ed.), *Educational Leadership*. IntechOpen. <https://doi.org/10.5772/intechopen.90564>
- Lee, H., Longhurst, M., & Campbell, T. (2017). Teacher learning in technology professional development and its impact on student achievement in science. *International Journal of Science Education*, 39(10), 1282–1303. <https://doi.org/10.1080/09500693.2017.1327733>
- Liu, T.-C. (2015). Taiwan teacher preparation program evaluation: Some critical perspectives. *Policy Futures in Education*, 13(4), 518–528. <https://doi.org/10.1177/1478210315572674>
- Louws, M. L., van Veen, K., Meirink, J. A., & van Driel, J. H. (2017). Teachers' professional learning goals in relation to teaching experience. *European Journal of Teacher Education*, 40(4), 487–504. <https://doi.org/10.1080/02619768.2017.1342241>
- Madalińska-Michalak, J. (2019). School-Based Professional Development Programs for Beginning Teachers. In J. Madalińska-Michalak, *Oxford Research Encyclopedia of*

- Education*. Oxford University Press.  
<https://doi.org/10.1093/acrefore/9780190264093.013.575>
- Maodzwa-Taruvinga, M., & Cross, M. (2012). Jonathan Jansen and the Curriculum Debate in South Africa: An Essay Review of Jansen's Writings Between 1999 and 2009. *Curriculum Inquiry*, 42(1), 126–152. <https://doi.org/10.1111/j.1467-873X.2011.00573.x>
- McCormack, A., Gore, J., & Thomas, K. (2007). Early Career Teacher Professional Learning. *Asia-Pacific Journal of Teacher Education*, 34(1), 95–113.  
<https://doi.org/10.1080/13598660500480282>
- Mgaiwa, S. J. (2018). Emerging Fundamental Issues of Teacher Education in Tanzania: A Reflection of Practices. *Educational Process: International Journal*, 7(4), 246–264.  
<https://doi.org/10.22521/edupij.2018.74.3>
- Mockler, N. (2022). Teacher professional learning under audit: Reconfiguring practice in an age of standards. *Professional Development in Education*, 48(1), 166–180.  
<https://doi.org/10.1080/19415257.2020.1720779>
- Namamba, A., & Rao, C. (2017). Preparation and Professional Development of Teacher Educators in Tanzania: Current Practices and Prospects. *Journal of Education and Practice*, 8(8), 136–145. ERIC.
- National Research Council (U.S) (Ed.). (2010). *Preparing teachers: Building evidence for sound policy*. National Academies Press.
- Nelson, J., & Campbell, C. (2017). Evidence-informed practice in education: Meanings and applications. *Educational Research*, 59(2), 127–135.  
<https://doi.org/10.1080/00131881.2017.1314115>
- Ngware, M. W., Oketch, M., & Mutisya, M. (2014). Does teaching style explain differences in learner achievement in low and high performing schools in Kenya? *International Journal of Educational Development*, 36, 3–12.  
<https://doi.org/10.1016/j.ijedudev.2014.01.004>
- Nkya, H., Fang, H., & Mwakabungu, F. (2021). Implementation of Competence Based Curriculum in Tanzania: Perceptions, Challenges and Prospects. A Case of Secondary School Teachers in Arusha Region. *Journal of Education and Practice*, 12(19), 34–41. <https://doi.org/10.7176/JEP/12-19-04>
- Novozhenina, A., & López, M. (2018). Impact of a Professional Development Program on EFL Teachers' Performance. *HOW*, 25(2), 113–128.  
<https://doi.org/10.19183/how.25.2.406>
- Nzima, I. (2016). *Competence-based curriculum (CBC) in Tanzania: Tutors' understanding and their instructional practices*. Linnaeus University Press.
- Opfer, V. D., & Pedder, D. (2011). Conceptualizing Teacher Professional Learning. *Review of Educational Research*, 81(3), 376–407.  
<https://doi.org/10.3102/0034654311413609>
- Patino, C. M., & Ferreira, J. C. (2018). Inclusion and exclusion criteria in research studies: Definitions and why they matter. *Jornal Brasileiro de Pneumologia*, 44(2), 84–84.  
<https://doi.org/10.1590/s1806-37562018000000088>
- Pettersson, G., & Rawle, G. (2015). EQUIP-Tanzania Impact Evaluation. Briefing Note 1: Teachers' Knowledge, Behaviour and Support in Some of the Most Disadvantaged Districts in Tanzania. *SSRN Electronic Journal*.  
<https://doi.org/10.2139/ssrn.2579284>
- Rodriguez-Segura, D., & Mbiti, I. (2022). *Back to the Basics: Curriculum Reform and Student Learning in Tanzania*. Research on Improving Systems of Education (RISE).  
[https://doi.org/10.35489/BSG-RISE-WP\\_2022/099](https://doi.org/10.35489/BSG-RISE-WP_2022/099)

- Sanga, P. L. (2017). Implications of teacher educators' practices in assessment for student learning in Tanzania. *Makerere Journal of Higher Education*, 8(1), 3. <https://doi.org/10.4314/majohe.v8i1.1>
- Swai, C. Z., Nkaizirwa, J. P., Hugo, A. K., Mahenge, C. A., & Komba, P. S. (2022). Strengthening Teacher Education in Tanzania: Student-Teachers' and Tutors' Satisfaction with College Facilities and Environment. *Cogent Education*, 9(1), 2070053. <https://doi.org/10.1080/2331186X.2022.2070053>
- Tanzania Institute of Education. (2018). *Ministry of Education, Science and Technology Education Sector Development Plan (2016/17 – 2020/21)*. TIE.
- Timperley, H. S. (2011). *Realizing the power of professional learning*. Open University Press.
- Ucan, S. (2016). The role of continuous professional development of teachers in educational change: A literature review. *Harran Education Journal*, 1(1), 36–43. <https://doi.org/10.22596/2016.0101.36.43>
- Westbrook, J., Durrani, N., Brown, R., Orr, D., Pryor, J., Boddy, J., & Salvi, F. (2013). *Pedagogy, Curriculum, Teaching Practices and Teacher Education in Developing Countries* (No. 2110; p. 151). Institute of Education, University of London.
- Zajda, J. (Ed.). (2018). *Globalisation and Education Reforms: Paradigms and Ideologies* (1st ed. 2018). Springer Netherlands: Imprint: Springer. <https://doi.org/10.1007/978-94-024-1204-8>
- Zajda, J. (2021). *Globalisation and education reforms: Creating effective learning environments*. Springer.