Teacher Education in Tanzania: A Qualitative Study of the Challenges, Effects, and Solutions

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[2,]Teacher Education in Tanzania: A Qualitative Study of the Challenges, Effects, and Solutions

ABSTRACT: This study investigated the difficulties and consequences of teacher education programs in Tanzania and offered recommendations and practical remedies for these issues. Thus, using a qualitative approach, data was collected through observations, interviews, and document analysis from 18 participants from various levels and types of teacher education programs. Thematic analysis was used, and the results indicated that the curriculum, pedagogy, assessment, resources, support, and professional development of the teacher education programs in Tanzania were negatively affected by several challenges. Hence, the quality and results of teacher education programs negatively affected the overall quality and results of the education system. Recommendations are that efforts should be continued to address the challenges and raise the caliber and applicability of teacher education programs. Therefore, the results add to the body of knowledge on teacher education in developing nations by offering an in-depth analysis of the difficulties and outcomes and the underlying causes and consequences associated with the teacher education programs in Tanzania.

KEYWORDS: Tanzania; teacher education; teacher education difficulties; teacher quality; educational solutions

I.   INTRODUCTION

Since teacher education prepares and develops the educators who oversee the learning and development of pupils, it is an essential part of the educational system. However, teacher education encounters numerous obstacles and hurdles in many situations, especially in developing nations like Tanzania. Tanzania has a lengthy and intricate history of teacher education, shaped by some social, political, and economic variables (Komba & Nkumbi, 2008; Nkaizirwa et al., 2022; Swai et al., 2022). Several levels and kinds of teacher education programs are available in Tanzania, including certificate, diploma, degree, and postgraduate programs. Organizations provide these programs, including universities, teacher colleges, and open and distance learning centers. However, these programs suffer several difficulties, including low professional development, limited resources, inefficient pedagogy, poor assessment, and inadequate content. These issues have an impact on the standard and results of teacher preparation, which in turn affects the standard and results of the educational system overall.

This study aims to investigate the difficulties encountered by teacher education programs in Tanzania and offer suggestions and potential solutions. There are various reasons why this study is important and pertinent. First, it fills a gap in the literature by providing an in-depth analysis of the difficulties and prospects of Tanzanian teacher education. Second, it advances the knowledge of teacher education by identifying and analyzing the issues and challenges local teachers and educators confront and offering suggestions for improving the programs' efficacy and quality. Along with producing new knowledge and insights into the phenomena of teacher education in the area, the study also seeks to support current theories and frameworks on teacher education with empirical data and real-world experiences (Rugeiyamu et al., 2022). Thirdly, it may influence policy and practice by offering some perspectives and implications to the government, the Ministry of Education, Tanzania Institute of Education, Tanzania Commission for Universities, and the National Council for Technical Education, stakeholders and decision-makers involved in teacher education, the Teacher Colleges and Universities; the Higher Education Students' Loans Board; the Teacher Educators; and the Students. The National Framework for Teachers' Professional Development 2020, which seeks to offer a thorough and cogent system for the ongoing professional development of teachers in Tanzania, is one of the ongoing reforms and initiatives in teacher education that the study also hopes to influence and inform (Rugeiyamu et al., 2022).
The following research questions served as the study's guide:
1.   What are the primary obstacles that educators in Tanzania confront as teachers?
2.   How do these difficulties impact the effectiveness and results of programs for teacher education?
3.   What suggestions and potential solutions are there to overcome these obstacles?

This study uses a case study design and a qualitative research methodology. The case study design is appropriate for this research because it allows the researcher to thoroughly examine and comprehend the phenomena of teacher education in real-world situations (Yin, 2013). The subject of the study is the three teacher education program cases in Tanzania: certificate, diploma, and degree programs provided by several institutions, such as teacher education colleges, university colleges, and universities. Engaging teachers and teacher educators in the study as participants allowed the researchers to get rich and diverse data from them using various data collection methods, including observations, interviews, and document analysis. The study analyzed the data using thematic analysis to pinpoint and characterize the surfaced themes and categories. The study also looked at the underlying problems that influence the opportunities and difficulties of teacher education, interpreting and explaining the results from a critical theory approach (Braun & Clarke, 2008).

II.   LITERATURE REVIEW

Curriculum, pedagogy, assessment, resources, support, and professional development are the six key themes that organize the literature on the opportunities and problems of teacher education in Tanzania and in comparable situations. The themes mentioned earlier exhibit interdependence and mutual influence. The literature on each theme will be reviewed, and the critical problems, conclusions, and suggestions will be emphasized in the ensuing sections.

Curriculum : The curriculum in teacher education programs is the goals, objectives, and material that direct the teaching and learning process. Since the curriculum represents the needs and interests of educators, learners, and society, it plays a critical role in determining the caliber and applicability of teacher education. Nevertheless, research indicates that the curricula of teacher preparation programs in Tanzania and other comparable settings are frequently out-of-date, unnecessary, burdensome, and inconsistent, and they fail to take into account the shifting needs and expectations of the educational system and the general public (Mwakyobwe & Shawa, 2023; Nkaizirwa et al., 2022). External influences that may not align with the local context and culture, such as foreign organizations, donor agencies, and global trends, also impact the curriculum. According to the literature, the curricula of programs for preparing teachers should be updated, relevant, balanced, and consistent. It should also consider the needs and interests of society, teachers, and students. Along with taking into account the local context and culture as well as the current global trends and challenges, the curriculum should also be flexible and sensitive to the ever-evolving demands and expectations of society and the educational system (Komba & Nkumbi, 2008; Swai et al., 2022).

Pedagogy : The approaches, plans, and procedures utilized to help teaching and learning are called pedagogy in teacher education programs (Kavenuke & Muthanna, 2021). Because it promotes the growth of teachers' and students' knowledge, abilities, and competencies, pedagogy is a crucial component in determining the caliber and efficacy of teacher education. However, research indicates that teacher education programs in Tanzania and other comparable countries frequently employ teacher-centered, lecture-based, exam-oriented pedagogy, which does not support the growth of critical thinking, creativity, and problem-solving abilities in both instructors and students (Buckler, 2016). Lack of resources, including textbooks, libraries, labs, and ICT facilities, limits the pedagogy and the possibilities for creative and interactive teaching and learning approaches (Komba & Nkumbi, 2008). According to the research, teacher education programs should use learner-centered, interactive, inquiry-based pedagogy that encourages teachers and students to enhance their critical thinking, creativity, and problem-solving abilities. Additionally, the pedagogy needs to be backed by sufficient and suitable resources, like ICT facilities, libraries, labs, and textbooks, which allow for the implementation of creative and dynamic teaching and learning techniques (Nkaizirwa et al., 2022)

Assessment : Teacher education program assessments are the methods and instruments used to gauge and assess the students' and teachers' learning objectives and competencies. Since the evaluation offers both teachers and students feedback and support, it is a crucial component in determining the caliber and accountability of teacher education (Chunga, 2020). However, research indicates that in Tanzania and other comparable settings, teacher education program evaluations are frequently summative, standardized, and high-stakes; hence, teachers and students do not receive insightful feedback or supportive feedback (Lubuva et al., 2022; Mwakyobwe & Shawa, 2023). Additionally, the national tests dominate the assessment. These exams are frequently accused of being invalid, unfair, and unreliable and foster a culture of rote learning, cheating, and corruption (Kitta & Tilya, 2010). According to the literature, teacher education program assessments should be formative, real-world, and low-stakes, giving teachers and students insightful feedback and encouragement. Along with measuring learning objectives and competencies of teachers and students instead of just knowledge and information recall,

assessments should be varied, connected with the curriculum and pedagogy, and focus on learning outcomes and competencies (Chunga, 2020; Lubuva et al., 2022; Mwakyobwe & Shawa, 2023).

Resources : The inputs and outputs needed for and generated by the teaching and learning process are the resources of teacher education programs (Chunga, 2020). The money, buildings, staff, supplies, and equipment that instructors and students require and utilize are all considered resources. The resources play a crucial role in determining the caliber and fairness of teacher education since they satisfy educators' and learners' needs and goals. Nevertheless, research indicates that the resources available to teacher education programs in Tanzania and other comparable settings are few, insufficient, and antiquated, and they fall short of what both teachers and students require and anticipate (Nkaizirwa et al., 2022; Swai et al., 2022). The ineffective administration, distribution, and use of resources, including money, space, and labor, affects them as well, leading to waste, inequity, and inefficiencies (Komba & Nkumbi, 2008; Nkaizirwa et al., 2022). Studies indicate that teacher education programs' materials must be updated, expanded, and more suitable to fulfill teachers' and students' needs and expectations. Therefore, to ensure the programs' quality, equity, and accountability, the resources should be managed, distributed, and used effectively and economically (Komba & Nkumbi, 2008; Nkaizirwa et al., 2022; Swai et al., 2022).

Support : The help and direction teachers and students receive and give to one another is called program support for teacher education (Nkaizirwa et al., 2022). In addition to the issues and needs that students and instructors face and resolve, support also encompasses academic, professional, and personal demands. As it increases the motivation and contentment of both teachers and students, support is crucial in determining the caliber and efficacy of teacher education. The research, however, shows that teacher education programs in Tanzania and other comparable contexts receive little, insufficient, and ineffective support and that they fail to address the needs and difficulties that instructors and students face on an academic, professional, and personal level (Nkaizirwa et al., 2022). The lack of cooperation, coordination, and communication between the various actors and stakeholders in teacher education, the government, institutions, teacher educators, teachers, and students, also makes it challenging to provide support (Komba & Nkumbi, 2008; Nkaizirwa et al., 2022). The body of research indicates that in addition to addressing the needs and difficulties that teachers and students face on an academic, professional, and personal level, support for teacher education programs should be increased, sufficient, and successful. In addition to addressing the needs and difficulties that teachers and students face on an academic, professional, and personal level, support for teacher education programs should be increased, sufficient, and adequate. Additionally, effective coordination, cooperation, and communication between the various actors and stakeholders involved in teacher education, including the government, institutions, teacher educators, teachers, and students, should facilitate the support (Nkaizirwa et al., 2022; Rugeiyamu et al., 2022).

Professional Development : In teacher education programs, professional development refers to the chances and activities teachers and teacher educators take advantage of to improve their knowledge, abilities, and attitudes (Komba & Nkumbi, 2008). Since professional development raises the performance and accomplishment of both teacher educators and teachers, it is a crucial component in determining the efficacy and quality of teacher education. However, research shows that in Tanzania and other comparable situations, professional development for teacher education programs is rare, irregular, and superficial; it also doesn't improve teacher educators and teachers' attitudes, knowledge, and abilities (Namamba & Rao, 2017). Another obstacle to professional development is the scarcity of chances, rewards, and recognition for educators to participate in ongoing learning and growth. These include conferences, workshops, seminars, publications, and awards (Antonietti et al., 2022; Kyaruzi et al., 2020; Namamba & Rao, 2017). The research indicates that frequent, ongoing, in-depth professional development for teacher education programs is necessary to improve teacher educators' and classroom teachers' attitudes, knowledge, and abilities. Workshops, seminars, conferences, research, publications, awards, and other suitable and appropriate opportunities, incentives, and recognition for teachers and teacher educators to engage in continuous learning and improvement should also support professional development (Methlagl, 2022; Namamba & Rao, 2017).

Theoretical Framework : The critical theory perspective, a broad and varied social and educational research tradition (Mclaren & Kincheloe, 2011), is the foundation for the study's theoretical framework. Its goal is to critique and change the systems and practices that currently support and perpetuate social injustice, inequality, and dominance (Mclaren & Kincheloe, 2011). The underlying presumptions and ideologies of the prevalent, educational paradigms and discourses are contested by critical theory, which also reveals the hidden agendas and power dynamics that influence teacher education practices and policy. In addition to enabling participation in the democratic and emancipatory processes of education, critical theory also gives teachers and teacher

educators the tools they need to become agents of social justice and change. The study's results can also be interpreted and explained via the lens of critical theory, which also looks at the underlying problems and power dynamics that influence the opportunities and challenges of teacher education in Tanzania.

Research Gap : According to the literature review, teacher education in Tanzania faces several difficulties, including poor pedagogy, inadequate curriculum, poor assessment, insufficient resources and support, and low professional development. These issues impact the quality and results of teacher education, which in turn affects the quality and outcomes of the educational system as a whole. The literature assessment has also revealed a dearth of research on Tanzania's teacher education possibilities and problems, particularly in the region of Tanga, one of the most populated and diverse in the nation. Thus, this study aims to fill this gap in the literature, investigate the difficulties encountered by teacher preparation programs in Tanzania, and offer suggestions or potential remedies. This research aims to enhance teacher education and provide valuable insights and implications for decision-makers in the field. These stakeholders and decision-makers include government agencies, education ministries, the Tanzania Institute of Education, the Tanzania Commission for Universities, the National Council for Technical Education, the Higher Education Students' Loans Board, teacher colleges, universities, teacher educators, teachers, and students.

III.   METHODOLOGY

Research Design and Approach : This study uses a case study design and a qualitative research methodology. The case study design is appropriate for this research because it allows the researcher to thoroughly examine and comprehend the phenomena of teacher education in real-world situations (Yin, 2013). The study focuses on three levels of teacher education programs in Tanzania: certificate programs, diploma programs, and degree programs, provided by various institutions, including teacher colleges, university colleges, and universities. The study addresses the research questions on the primary obstacles teachers, and teacher educators face in Tanzania, how those obstacles impact the quality and results of teacher education programs, and the potential solutions and recommendations to overcome the challenges.

Sampling Strategy and Criteria : Purposive sampling is the method used in this study, meaning that volunteers are chosen depending on how well they fit the goals and issues of the research (Palinkas et al., 2015). The following sampling criteria were used to select the participants:
1.   The educators or instructors presently employed by or enrolled in one of Tanzania's three teacher education programs.
2.   Who worked in Tanzania as a teacher or in teacher education for at least a year.
3.   Those who gave informed consent were eager to participate in the data collection process.

The sample constituted 6 participants from the three levels of a teacher education program (certificate, diploma, and degree), making up the 18-participant sample size for this research. The data saturation principle, which states that data collection and analysis will continue until no new and pertinent information is acquired from the participants, was used to establish the sample size (Saunders et al., 2018).

Data Collection Methods and Tools : The interview schedule in Appendix 1, observations following the observation instrument in Appendix 2, and document analysis are the methods used to acquire data for this study. These techniques were selected because they are appropriate and helpful in gathering comprehensive and varied data from the participants and expressing the intricacy and context of the teacher education phenomena (Creswell & Poth, 2016). The study's instruments for gathering data are: Interviews: Individual semi-structured interviews were held with each participant utilizing an interview guide, including open-ended questions pertinent to the goals and inquiries of the study. The interviews were done online and in person, depending on the participants' preferences and availability. For data analysis, the discussions are audio-recorded and then transcribed. Each interview lasts for roughly 45 minutes.

Observations: Observations using an observation checklist with indicators and criteria on the goals and issues of the research and non-participant observations were carried out in the participants' workplaces and classes. These observations were done during the participants' everyday teaching and teacher education classes. Field notes and photos were used to document the observations to collect data for analysis. Each observation lasted for almost an hour.

Document analysis: The process of examining pertinent and obtainable papers about the participant's teacher education programs. These included lesson plans, curriculum, assignments, assessments, feedback, reports, and policies. A document analysis template with categories and subcategories according to the study questions and

objectives is used to conduct the document analysis. The document analysis was recorded using summaries and quotations for data analysis.

Data Analysis Procedures and Techniques : Thematic analysis is a strategy used in data analysis for this study that involves recognizing, evaluating, and summarizing the themes and patterns in the data (Braun & Clarke, 2008). These are the methods and procedures for data analysis:

Familiarization: Gaining a basic grasp and familiarity with the data involves the researcher reading and rereading the data and listening to the audio recordings numerous times. *Coding:* The researcher gives codes or labels to the data segments pertinent to the study's goals and queries. The codes were words or phrases that were brief and descriptive and were constructed either inductively from the facts or deductively from the literature and theoretical framework.

Categorization: To depict the primary facets or features of the phenomena of teacher education, the researcher organized the codes into more general categories or subthemes. The subthemes or groups have names, definitions, and connections to the codes they include.

Theme development: The researcher combined the categories and subthemes into overarching themes representing the study's main conclusions or points of contention. The themes are identified, explained, and connected to the subthemes or groups they belong to. The themes also have connections to the literature or theoretical framework, as well as to the goals and inquiries of the research.
Theme refinement: The researcher examined and revised the themes to ensure they conveyed the data's complexity and core and were thorough, logical, and consistent. By contrasting the themes with the original data and getting input from people or other researchers, the researcher further verifies the themes' validity and dependability.

Theme presentation: The researcher presented and reported the themes clearly and concisely, using narratives and quotations to illustrate and support the themes. The researcher also discussed the implications and limitations of the themes and provided some recommendations and suggestions for future research and practice.

Ethical Issues and Considerations
The following are the study's ethical problems and considerations:

Informed consent: Before beginning the data-gathering process, the researcher got informed consent from the participants. Information on the study's goals, methods, advantages, risks, confidentiality, and participant rights and obligations are all included in the informed consent form. There are no repercussions if a participant leaves the research at any point.

Confidentiality: The researcher used pseudonyms and codes to identify the participants and the cases, and the data was stored on a password-protected, secure device or platform to ensure the confidentiality of the participants and the data. Without the consent of the participants, the researcher does not divulge or share the data with any third party not participating in the study.

Anonymity: Through the removal and masking of any identifying or sensitive information, such as names, places, and personal details, the researcher was able to ensure the anonymity of both the participants and the data. Furthermore, without the participant's consent, the researcher did not disclose or imply the identities and attributes of the participants or the cases in the study's report or publication.

Trustworthiness: The study's credibility, dependability, confirmability, and transferability were all increased by the researcher by utilizing a variety of data sources, data collection and analysis techniques, and participant views. The researcher also employed member checking, triangulation, peer review, and reflexivity to confirm further and authenticate the study's conclusions and interpretations.

Findings : The data gathered from the observations, interviews, and document analysis were thematically analyzed to provide the study's conclusions. The data analysis revealed six major themes and categories: curriculum, pedagogy, assessment, resources, support, and professional development. These themes and categories are used to illustrate the findings. The results are compared and contrasted for the many participant

groups or cases, including teacher educators, program administrators, and teachers. The research aims and questions are also connected to the findings, describing how they respond to or handle them.

IV.   CHALLENGES

Curriculum : The results show that the teacher education curricula in Tanzania are outdated, irrelevant, overburdened, inconsistent, and do not consider the needs and interests of the community, teachers, or students. The results also show that outside forces, such as international organizations, donor agencies, and global trends, impact the curriculum and may not be appropriate for the local environment and culture. The results demonstrate that the participants lack satisfaction and frustration with the curriculum and encounter several obstacles while trying to use and modify it. The results also indicate that, based on their roles, levels, and program kinds, the participants' perspectives and experiences with the curriculum vary. The following are a few quotes or data excerpts that support the findings:

> "The curriculum does not align well with what society, the educational system, or the modern world expects. It is also quite rigid and uncompromising, which inhibits us from incorporating innovation and creativity into our teaching". (Teacher educator, study plan, interview)
> "The curriculum is outdated and unworkable. It doesn't prepare us for the harsh realities and difficulties of the school and the classroom. Additionally, it lacks the competencies and skills that instructors require and is highly theoretical and abstract". (Educator, certificate program, interview)
> "The curriculum is incredibly dense and demanding. It gives us insufficient time and depth to fully grasp the vast array of themes and subjects it covers. It lacks a defined structure and flow and is incredibly inconsistent and perplexing". (Observation, certificate program, teacher)
> "The curriculum is influenced and governed by external factors, such as international organizations, donor agencies, and worldwide trends. They impose their standards and ideals on us, ignoring our culture and background. Additionally, they reject our voices and thoughts and keep us out of the development and design of the curriculum". (Instructor, instructor, college, university, study of documents)

The findings address the first study question, the primary obstacles teachers and educators in Tanzania face. Based on their impact on program quality and relevance, participant happiness, and motivation, the data show that the curriculum is one of the biggest obstacles the participants confront. The third goal of the research, which is to offer suggestions or potential solutions for overcoming the difficulties, is likewise related to the findings. The study indicates that the programs' curricula for preparing teachers should be updated, changed, relevant, balanced, and consistent. It should also consider the needs and interests of society, teachers, and students. The results also imply that the curriculum should be flexible and responsive to the shifting needs and expectations of society and the educational system and consider both local context and culture and global trends and challenges. The results also imply that the participants ought to have more freedom and flexibility in putting the curriculum into practice and making adjustments, as well as involvement and consultation in its design and development.

Pedagogy : The results show that the methodology of the teacher education programs in Tanzania is lecture-based, exam-oriented, and teacher-centered; it does not encourage the growth of students' and teachers' critical thinking, creativity, or problem-solving abilities. The research also shows that a shortage of resources, including ICT facilities, textbooks, libraries, and labs, limits the potential for creative and participatory teaching and learning approaches. The results demonstrate that the participants find the pedagogy boring and inactive and encounter several obstacles while trying to inspire and engage teachers and pupils. The results also demonstrate that, based on their positions, levels, and program kinds, the participants' perspectives and experiences with the pedagogy vary. Here are a few instances of quotes or data extracts that bolster the conclusions:

> "The teacher-centered and lecture-based education is prevalent. The teacher will talk and talk without allowing us to engage or raise questions. There is less chance for the teachers to put what they have learned into practice; they are only allowed to listen and take notes." (Educator, educational degree program)
> "The teaching approach is heavily test-driven and exam-focused. The teachers' comprehension or learning is of no concern to the teacher educators; they only teach for the test. The teachers do not acquire the skills or abilities necessary to be effective educators; instead, they merely memorize and repeat the material". (Educator teacher, certificate program, interview)

"There are not enough resources or good pedagogy. Insufficient textbooks, libraries, labs, and ICT resources are available to teacher educators to facilitate instruction. The teachers lack resources to improve their learning and growth". (Observation, diploma program, teacher)

"The teaching methods are extremely antiquated and inefficient in fostering students' and teachers' capacity for critical thought, creativity, and problem-solving. The teacher educators do not use innovative and interactive teaching and learning strategies like group projects, case studies, simulations, and work-based learning. In their classrooms and schools, the teachers are not trained in applying these strategies". (Instructor, teacher; college; documents analysis)

The findings address the first study question, the primary obstacles teachers and educators in Tanzania face. Based on their impact on program quality and efficacy, participant motivation, and overall happiness, the data suggest that one of the major issues experienced by the participants is pedagogy. The third goal of the research, which is to offer suggestions or potential solutions for overcoming the difficulties, is likewise related to the findings. Based on the findings, teacher education programs should build teachers' and students' critical thinking, creativity, and problem-solving skills through learner-centered, interactive, and inquiry-based pedagogy. The results further indicate that enough suitable resources, including textbooks, libraries, labs, and ICT facilities, should support the pedagogy and facilitate creative and interactive teaching and learning techniques.

Assessment : According to the findings, the teacher education programs in Tanzania are evaluated summatively, in a standardized manner with high stakes, and neither the teachers nor the students receive helpful feedback or support. These results also show that the national examinations dominate the assessment, which is frequently condemned for being flawed, unjust, and unreliable and for fostering a culture of corruption, cheating, and rote learning. The results demonstrate that the participants experience tension and anxiety related to the assessment and various obstacles and difficulties when preparing for and performing well on the test. According to their positions, levels, and program kinds, the participants' perspectives and experiences with the assessment varied, as evidenced by the findings. Several instances of the quotations or passages from the data that support the results are:

"The evaluation is highly standardized and summative. We only received one final exam from the teacher educators at the semester's conclusion; no formative or ongoing assessments were given to us throughout that time. Teachers receive a single grade or score; they do not receive guidance or advice on advancing or improving". (Educator, degree program, interview)

"There are a lot of pressure points and high stakes in this assessment. The teacher educators don't care about the instructors' comprehension or learning; they only teach for the test. Teachers aren't concerned about the competencies or skills they need to be effective teachers; they focus on studying for the test". (Educator-teacher, credential program, interview)

"The evaluation is erroneous and highly untrustworthy. The teacher educators neither mark nor grade the assessment according to precise or consistent standards. The teachers are unsure of what to anticipate or how to prepare, and they lack faith in the assessment". (Instructor, certificate program, and observation)

"The evaluation is incredibly biased and dishonest. The teacher educators have no accountability or transparency in the assessment process. The assessment results are unfair and unjust to the teachers. The teacher educators' bias, nepotism, and bribery all impact the assessment". (Educator, teacher, college, university, document analysis)

The findings address the first study question, the primary obstacles teachers and educators in Tanzania face. Depending on their motivation and satisfaction levels and the quality and accountability of their programs, the findings show that the assessment process is one of the biggest challenges the participants face. The third goal of the research, which is to offer suggestions or potential solutions for overcoming the difficulties, is likewise related to the findings. The results indicate that teacher education program evaluations should be formative, real-world, and low-stakes, and they should give teachers and students insightful feedback and assistance. The results also imply that rather than focusing only on test takers' memorization of facts and information, assessments should be varied, in line with curricula and pedagogy, and gauge teachers' and students' learning outcomes and competencies. The results also imply that the evaluation should guarantee the programs' quality, equity, and integrity and be legitimate, fair, transparent, and dependable.

Effects of the Challenges : The results show that the quality and outcomes of teacher education programs in Tanzania are negatively impacted by the difficulties that teachers and teacher educators experience. It is evident from the data that the problems affect the knowledge, abilities, and competencies of both teacher educators and teachers, as well as their performance and accomplishments, motivation, and overall satisfaction with their teacher education programs. Additionally, the results demonstrate that the consequences of the challenges vary among the various participant groups or cases based on roles, program types, and levels. Several instances of the statements or passages from the information that back up the findings are:

> "The difficulties impact our proficiencies, expertise, and knowledge as educators and teacher trainers. We do not receive training or instruction in the most recent and pertinent concepts, procedures, and methods required to practice our profession effectively. In our classrooms and schools, we do not acquire or improve the critical thinking, creativity, and problem-solving abilities required to deal with and adjust to the ever-changing and demanding circumstances". (Interview, university, teacher educator)
> "The difficulties impact our effectiveness and accomplishments as educators and teachers. We don't perform or do well on our assessment and evaluation because we don't receive the proper feedback and assistance needed to advance. We don't have the necessary facilities and resources to support or engage in the teaching and learning process; thus, we don't perform or achieve well in our teaching and learning". (Educator, diploma program, interview)
> "The difficulties impact our motivation and sense of fulfillment as instructors. We do not enjoy or appreciate our programs because we lack the pertinent and meaningful curriculum and pedagogy to engage and inspire us. We don't feel appreciated or valued in our programs since we don't receive sufficient encouragement and support to help us feel empowered". (Observation, diploma program, teacher)

The findings address the second research question, "How do these issues affect the quality and outcomes of teacher education programs?". The results show that the difficulties have a detrimental impact on the standard and performance of teacher education programs and, hence, on the standard and performance of the educational system overall. The results also pertain to the initial research goal of examining the difficulties in Tanzania's teacher preparation programs. The results offer a more comprehensive and profound comprehension of the obstacles and their consequences in the teacher education initiatives within the area.

Solutions and Recommendations : The results show that the participants have some suggestions or potential answers to the problems teachers and educators face in Tanzania. The results demonstrate that the recommendations or solutions are based on the needs and interests of the participants as well as the local context and culture. The results also demonstrate that the suggestions or answers pertain to the difficulties' six primary topics or categories: professional development, resources, pedagogy, assessment, curriculum, and support. The results also demonstrate that, based on the participants' roles, levels, and kinds of programs, the recommendations or solutions vary or are comparable across the various groups or situations of the participants. Here are a few instances of quotations or data extracts that demonstrate

> "Revising and updating the curriculum to make it more current, balanced, and relevant is the answer to the curriculum dilemma. The demands and passions of educators, learners, and the community should be represented in the curriculum. Along with considering the local context and culture and the current global trends and challenges, the curriculum should also be flexible and sensitive to the ever-evolving demands and expectations of society and the educational system. Participants ought to have greater freedom and flexibility in implementing and modifying the curriculum and involvement and consultation in its design and development". (Educator-teacher, degree program, document analysis)
> "Making pedagogy learner-centered, participatory, and inquiry-based is the answer to the pedagogy challenge. Teachers and students should be encouraged to think critically, be creative, and solve problems through pedagogy. To facilitate the employment of creative and interactive teaching and learning techniques, sufficient and suitable resources, such as textbooks, libraries, labs, and ICT facilities, should also support the pedagogy". (Educator, certificate program, interview) "Making assessments formative, real, and low-stakes answers the assessment dilemma. The assessment should offer insightful criticism and encouragement for both teachers and students. Furthermore, rather than focusing solely on fact and knowledge recall, assessments should be varied, in line with the curriculum and pedagogy, and measure teachers' and students' learning outcomes and abilities. In addition, the evaluation must guarantee the programs' integrity, equity, and quality. It must also be valid, fair, and

transparent". (Educator teacher, diploma program, interview) "Increasing, upgrading, and modernizing the resources, money, buildings, staff, supplies, and equipment that educators and learners require and utilize is the answer to the resource dilemma. In addition to guaranteeing the caliber and equity of the programs, the resources should satisfy the needs and goals of both educators and students. The resources must also be properly and efficiently managed, distributed, and used to guarantee the programs' accountability". (Observation, degree program, teacher)

"Improving, offering, and making it adequate and efficient for the instructors and pupils is the answer to the support problem. In addition to improving instructors' and students' motivation and happiness, the assistance should address their needs and problems on a personal, professional, and academic level. Strong cooperation, coordination, and communication between the various players and stakeholders in teacher education, including the government, institutions, teacher educators, teachers, and students, should also help to facilitate the assistance". (Instructor, university, college, documents analysis)

"Making professional development for teachers and teacher educators regular, ongoing, and comprehensive is the answer to the problem. Professional development aims to increase the performance and accomplishment of teachers and teacher educators by improving their knowledge, abilities, and attitudes. Incentives and recognition for teachers and educators to participate in ongoing learning and development, such as conferences, workshops, seminars, publications, and prizes, should also be provided to support professional development". (Educator, training program, Interview)

The data addresses the third study question, which asks what suggestions or potential answers might be for overcoming the obstacles. According to the findings, the participants have offered suggestions or potential solutions to overcome the difficulties and enhance the caliber and results of their teacher education programs. The third goal of the research, which is to offer suggestions or potential solutions for overcoming the difficulties, is likewise related to the findings. For those who are involved in teacher education and make decisions about it, including the government, the Ministry of Education, Tanzania Institute of Education, Tanzania Commission for Universities, the National Council for Technical Education, the Higher Education Students' Loans Board, teacher colleges, universities, and teacher educators, the findings offer some information and implications.

V.   DISCUSSION

In this section, the study's conclusions, derived from data gathered via observations, focus groups, interviews, and document analysis, are discussed and contrasted with previously published research. The part also addresses the findings' significance and implications for teacher education theory, practice, and policy in Tanzania and beyond. The five major themes from the data analysis and are arranged in this part are curriculum, pedagogy, assessment, consequences of difficulties, and recommendations or remedies.

Curriculum : One of the key elements influencing the caliber and applicability of teacher education is the curriculum of the teacher education programs in Tanzania, which is the subject of the first theme of the findings. The results show that the curriculum does not represent the needs and interests of instructors, students, or society. It is also out of date, irrelevant, overburdened, and inconsistent. The results also show that outside forces, such as international organizations, donor agencies, and global trends, impact the curriculum and may not be appropriate for the local environment and culture. The results demonstrate that the participants lack satisfaction and frustration with the curriculum and encounter several obstacles while trying to use and modify it. The results also indicate that, based on their roles, levels, and program kinds, the participants' perspectives and experiences with the curriculum vary.

The results of this study align with the body of literature indicating that teacher education curricula in developing nations are frequently out-of-date, irrelevant, overburdened, and inconsistent and do not take into account the needs and interests of educators, learners, and society at large (Atuhurra & Kaffenberger, 2022; Buckler, 2016; Namamba & Rao, 2017). The results of this study corroborate the body of research showing that donor agencies, international organizations, and global trends that might not align with the local environment and culture impact the curricula of teacher preparation programs in developing countries. The results of this study also support other research (Akyeampong et al., 2013; Atuhurra & Kaffenberger, 2022; Buckler, 2016) that demonstrates participants' dissatisfaction and frustration with the curriculum, as well as their struggles in adopting and adapting it. The results of this study also show specific variances and disparities in the curriculum among the participants based on their jobs, programs, and levels, which contributes to the complexity and

diversity of the teacher education environment in Tanzania. The study's conclusions substantially impact teacher education theory, practice, and policy in Tanzania and beyond. The study's findings imply that the curricula of teacher preparation programs should be updated, changed, relevant, balanced, and consistent to meet better the needs and interests of society, teachers, and students. The results of this study also imply that the curriculum ought to be flexible and responsive to the shifting needs and expectations of society and the educational system and that it should consider both local context and culture and global trends and issues. The results of this study also imply that participants ought to have more freedom and flexibility in implementing and modifying the curriculum, as well as involvement and engagement in its design and development. Thus, to ensure coherence and efficacy, the study's findings recommend that the curriculum be integrated and matched with other facets of teacher education, including pedagogy, assessment, resources, support, and professional development.

Pedagogy : One of the key elements influencing the caliber and efficacy of teacher education is the pedagogy of the programs in Tanzania, which is the subject of the second theme of the research. The results show that the approach is lecture-based, exam-focused, and teacher-centered; it does not encourage the growth of students' critical thinking, creativity, or problem-solving abilities. The research also shows that a shortage of resources, including ICT facilities, textbooks, libraries, and labs, limits the potential for creative and participatory teaching and learning approaches. The results demonstrate that the participants find the pedagogy boring and inactive and encounter several obstacles while trying to inspire and engage teachers and pupils. The results also show that, based on their positions, levels, and program kinds, the participants' perspectives and experiences with the pedagogy vary. The study's results align with existing literature, which argues that teacher education programs in developing nations typically employ teacher-centered, lecture-based, exam-oriented pedagogy that fails to promote critical thinking, creativity, and problem-solving abilities in both teachers and students (Buckler, 2016; Kavenuke & Muthanna, 2021; Mwakyobwe & Shawa, 2023). The study's findings are consistent with the body of research showing that the pedagogy of teacher education programs in developing nations is limited by a lack of resources, including ICT facilities, textbooks, libraries, and labs. These resources also limit creative and interactive teaching and learning opportunities (Buckler, 2016; Kavenuke & Muthanna, 2021; Mwakyobwe & Shawa, 2023). The study's findings also support previous research demonstrating that participants are disinterested and passive in the pedagogy and have a variety of obstacles to overcome to engage and motivate both teachers and pupils (Buckler, 2016; Kavenuke & Muthanna, 2021; Mwakyobwe & Shawa, 2023). The results of this study also show specific pedagogical variances and variations among the participants based on their responsibilities, levels, and program kinds, which contributes to the richness and diversity of Tanzania's teacher education environment.

The study's conclusions substantially impact teacher education theory, practice, and policy in Tanzania and beyond. According to the study, teacher education programs should use learner-centered, interactive, inquiry-based pedagogy that encourages teachers and students to enhance their critical thinking, creativity, and problem-solving abilities. The results of this study also indicate that to facilitate the employment of creative and interactive teaching and learning techniques, sufficient and suitable resources, including textbooks, libraries, labs, and ICT facilities, should support pedagogy. The results of this study also imply that the participants ought to have greater autonomy and flexibility in choosing and implementing the instructional strategies that best fit their needs and circumstances, as well as involvement and engagement in the delivery and evaluation of the pedagogy. Therefore, to ensure coherence and efficacy, the study's findings recommend integrating and matching the pedagogy with other facets of teacher education, including curriculum, assessment, resources, support, and professional development.

Assessment: A primary factor influencing the quality and accountability of teacher education is Tanzania's teacher education programs, which is the subject of the third theme of the findings. According to the findings, the assessment is high-stakes, summative, and standardized, and neither the teachers' nor the students' relevant feedback or support is given. These results also show that the national examinations dominate the assessment, which is frequently condemned for being flawed, unjust, and unreliable and for fostering a culture of corruption, cheating, and rote learning. The results demonstrate that the participants experience tension and anxiety related to the assessment and various obstacles and difficulties when preparing for and performing well on the test. The results also demonstrate that, based on their positions, levels, and program kinds, the participants' perspectives and experiences with the assessment varied. The study's findings are in line with the body of research indicating that summative, standardized, high-stakes evaluations of teacher education programs are standard in developing nations and do not give instructors or students helpful feedback or assistance (Chunga, 2020; Lubuva et al., 2022; Mwakyobwe & Shawa, 2023). The results of this study also corroborate the body of research showing that national exams, which are frequently criticized for being invalid, unfair, and unreliable, as well as for fostering a

culture of rote learning, cheating, and corruption, dominate in the evaluation of teacher education programs in developing nations (Chunga, 2020; Lubuva et al., 2022; Mwakyobwe & Shawa, 2023). The results of this study also support previous research demonstrating that participants experience anxiety and stress related to the assessment, as well as a variety of obstacles and difficulties when getting ready for and performing the assessment (Chunga, 2020; Lubuva et al., 2022; Mwakyobwe & Shawa, 2023). The results of this study also highlight some of the diversity and complexity of the teacher education environment in Tanzania by highlighting the differences and variations in assessment practices among the participants based on their roles, levels, and program types. The study's conclusions will significantly impact the theory, practice, and policies about teacher education in Tanzania and elsewhere. The study's conclusions point to the need for low-stakes, formative, authentic assessments of teacher education programs that offer teachers and students helpful feedback and encouragement. The research's conclusions also imply that a more varied evaluation should be made.

Strengths and Limitations of the Study : This study's strengths include its use of a case study design and qualitative research methodology, which enable the researcher to thoroughly examine and comprehend teacher education phenomena in real-world situations (Yin, 2013). Because it allows the researcher to address the complexity and contextuality of the phenomenon of teacher education as well as the how and why questions, the case study design is appropriate and helpful for this type of research (Yin, 2013). The methodology employs various data collection techniques, including focus groups, observations, interviews, and document analysis, to gather comprehensive and varied information from the participants and effectively convey the intricate and multifaceted nature of the teacher education phenomenon. Since the researcher can employ member checking, triangulation, and peer review to authenticate the study's findings and interpretations, its numerous data sources further enhance its credibility and reliability (Creswell & Poth, 2016). The technique uses thematic analysis, which is a way to find, examine, and summarize the themes or patterns in the data. This study is well suited for thematic analysis since it allows the researcher to arrange and synthesize the data understandably and logically and present and report the findings (Braun & Clarke, 2008).

It uses the critical theory approach, which is a wide-ranging and multifaceted tradition of social and educational study, to criticize and change the systems and procedures now in place that produce and uphold social injustice, oppression, and dominance (Mclaren & Kincheloe, 2011). This study is well suited to the critical theory approach because it allows the researcher to uncover and dissect the hidden agendas and power dynamics that influence teacher education policies and practices and question and expose the underlying assumptions and ideologies of the dominant educational paradigms and discourses. The critical theory viewpoint also empowers and involves participants in the research process, fostering the growth and empowerment of teacher educators and instructors as change agents and social justice advocates (Mclaren & Kincheloe, 2011). This study's limited sample size restricts how broadly the findings may be applied to other populations and circumstances, which is one of its weaknesses (Saunders et al., 2018). The small sample size also limits the diversity and representativeness of the participants and may not capture the full range and variation of the phenomenon of teacher education (Saunders et al., 2018). It depends on the participants' self-reported data, which could be skewed by their prejudices, opinions, or feelings and might not accurately represent the phenomenon of teacher education as it exists. The participants' social desirability or acquiescence may also impact the self-reported data; they may give the responses they believe the researcher wants to hear or believe are desirable or acceptable in society (Palinkas et al., 2015). It is impacted by the researcher's positionality, reflexivity, and subjectivity, which could affect the gathering and processing of data and the interpretation and justification of the results (Mclaren & Kincheloe, 2011). The researcher's positionality, reflexivity, and subjectivity may impact the relationship and interactions with the participants, as well as the ethical issues and considerations of the study (Mclaren & Kincheloe, 2011).

Recommendations and Future Research : To provide a more thorough and holistic understanding of the phenomenon of teacher education, future research on the difficulties and opportunities facing Tanzanian teacher educators, particularly in Tanzania, should be carried out utilizing a variety of research designs, methods, and tools, and involving a wide range of participants, including parents, legislators, and students. It ought to investigate and assess how the opportunities and difficulties associated with teacher education affect the general effectiveness and results of the educational system as well as the national social and economic growth. Additionally, it may analyze and appraise the efficacy and efficiency of the suggestions and solutions put forward and put into practice to get beyond obstacles and enhance the caliber and results of teacher education. The laws and rules governing Tanzania's teacher education programs, including those of curriculum, pedagogy, assessment, resources, support, and professional development, should also be updated and reformed by policymakers to guarantee that they are equitable, current, and meet the needs and interests of society, teachers,

and students. Furthermore, in future policymaking, the government, the Ministry of Education, the Tanzania Institute of Education, the Tanzania Commission for Universities, the National Council for Technical Education, the Higher Education Students' Loans Board, the teacher colleges, the universities, the teacher educators, the teachers, and the students should all be involved and consulted in the design and development of the policies and regulations, as well as in the process of implementing them. Therefore, to guarantee that the programs are innovative, flexible, and responsive and support the growth and empowerment of teachers and teacher educators, future practice should be typified by better and enhanced procedures and practices that carry out Tanzania's teacher education initiatives. These procedures and practices include program design, delivery, evaluation, and improvement. Hence, to guarantee that teachers and teacher educators have the knowledge, abilities, and competencies required to succeed in their line of work, practices should be supported to provide sufficient and appropriate resources, support, and opportunities for professional growth. Future practices should incorporate and engage teacher educators and teachers in the decision-making and problem-solving processes related to the opportunities and difficulties of teacher education. Assuring that all parties have a shared vision and goal for teacher education programs, as well as mutual understanding and respect for them, will require future practice to collaborate and communicate with other stakeholders and actors involved in teacher education, such as students, parents, schools, communities, and policymakers.

VI.   CONCLUSION

This research aimed to examine the opportunities and problems associated with teacher education in Tanzania and offer suggestions or potential solutions for resolving these issues and raising the standard and efficacy of teacher education. Thus, 18 teachers and teacher educators enrolled in or employed in three different teacher education programs in Tanzania, a certificate program, a diploma program, and a degree program, were the participants in this qualitative case study research project. The study employed various data collection methods, including observations, interviews, and document analysis. The themes or patterns that arose from the data were found, examined, and reported using thematic analysis. The research also employed a critical theory approach, a vast and varied tradition in social and educational studies, to criticize and change the current systems and procedures that produce and uphold dominance, inequality, and oppression in society.The study's main conclusions and implications include that teacher educators and instructors in Tanzania deal with various issues in their teacher education programs, including low professional development, insufficient resources, poor pedagogy, inadequate curriculum, and poor assessment. These difficulties represent the historical, political, economic, and social influences on Tanzania's teacher education system and other contexts that are comparable, and they are harmonious and coherent with the body of current research and theoretical framework.

The difficulties have a detrimental impact on the standard and results of their programs for preparing teachers and, as a result, on the overall standard and results of the educational system. The impact of these interventions can be seen in the knowledge, abilities, and competencies of teacher educators and instructors, as well as in their performance and accomplishments, motivation, and sense of fulfillment. These consequences vary depending on the roles, degrees, and kinds of programs each group or individual is involved in.Furthermore, to overcome the difficulties and enhance the caliber and results of their teacher education programs, the participants have offered some suggestions or potential fixes. Some suggestions and solutions have been developed based on the requirements and preferences of the participants as well as the local context and culture. These suggestions or solutions address the challenges' six primary topics or categories: curriculum, pedagogy, assessment, resources, support, and professional development. Depending on the responsibilities, degrees, and kinds of programs each group or participant is involved in, these recommendations or solutions may be the same or different.

The results of this study offer a deeper and more comprehensive understanding of the opportunities and challenges of teacher education in Tanzania, as well as their effects and impacts on the overall quality and outcomes of the education system. These findings have important and pertinent implications for the field of teacher education. The study's conclusions also have some ramifications and insights for raising the caliber and effectiveness of the education system and improving the teacher preparation programs in Tanzania. The study's findings also offer some suggestions or potential remedies for resolving issues and enhancing the caliber and results of their teacher preparation initiatives.Since teacher education prepares and develops the educators who will oversee the learning and development of the students, it is undeniably an essential and beneficial part of the educational system. Nonetheless, there are numerous obstacles and problems facing teacher education in various settings, particularly in developing nations like Tanzania. This study has examined these issues, analyzed them, and offered recommendations or potential solutions to address them and raise teacher education standards and efficacy. Additionally, this study has advanced our understanding of teacher education and its application, empowering and involving teacher educators and practitioners as change agents and social justice advocates.

This study aims to improve the caliber and results of the educational system overall and serve as an inspiration for and source of information for future teacher education research, policy, and practice.

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Appendix 1: Interview Schedule Guide
Interview schedule guide for teachers and teacher educators in Tanzania
Purpose: To explore the challenges and opportunities of teacher education in Tanzania in Tanzania and to provide possible solutions and recommendations to overcome the challenges and improve the quality and outcomes of teacher education.
Introduction: Welcomed the participant, self-introduction, and the study, explained the purpose and objectives of the interview, explained the consent and confidentiality procedures, asked for permission to record the interview, and thanked the participants for their participation.
Questions:
1. What is your role and level in the teacher education program in which you are employed?
2. How long have you been involved in the teacher education program?
3. How do you describe the curriculum of the teacher education program? What are the strengths and weaknesses of the curriculum?
4. How do you describe the pedagogy of the teacher education program? What are the strengths and weaknesses of the pedagogy?
5. How do you describe the assessment of the teacher education program? What are the strengths and weaknesses of the assessment?
6. How do you describe the resources of the teacher education program? What are the strengths and weaknesses of the resources?
7. How do you describe the support of the teacher education program? What are the strengths and weaknesses of the support?
8. How do you describe the professional development of the teacher education program? What are the strengths and weaknesses of professional development?
9. How do these aspects of the teacher education program affect the quality and outcomes of your program and your motivation and satisfaction as a teacher or a teacher educator?
10. What are the main challenges or difficulties you face in the teacher education program?
11. How do you cope or deal with these challenges or difficulties?
12. What are the main opportunities or benefits you experience or enjoy in the teacher education program?
13. How do you take advantage or make use of these opportunities or benefits?
14. What are some possible solutions or recommendations that you have or suggest to overcome the challenges and improve the quality and outcomes of the teacher education program?

Conclusion: Summarized the main points of the interview, asked the participants if they had any questions or comments, thanked the participants for their time and input, and explained the next steps of the study.

Appendix 2: Observation Instrument
Observation instrument for teachers and teacher educators in Tanzania
Purpose: To observe and evaluate the pedagogy and performance of the teachers and teacher educators in the teacher education programs in Tanzania in Tanzania.
Introduction: Introduced the study to the observed person, explained the purpose and objectives of the observation, explained the consent and confidentiality procedures, asked for permission to record the observation, and thanked the observed person for their participation.

Checklist or rating scale:
1. The teacher or teacher educator uses learner-centered, interactive, and inquiry-based teaching and learning methods. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)
2. The teacher or teacher educator fosters the development of critical thinking, creativity, and problem-solving skills among the teachers and the students. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)
3. The teacher or teacher educator uses adequate and appropriate resources, such as textbooks, libraries, laboratories, and ICT facilities, to support the teaching and learning process. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)

4. The teacher or teacher educator provides meaningful feedback and support for the teachers and the students. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)
5. The teacher or teacher educator performs or achieves well in assessing and evaluating the teaching and learning process. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)
6. The teacher or teacher educator enjoys or appreciates the teaching and learning process and is motivated and satisfied with their program. (1: Never, 2: Rarely, 3: Sometimes, 4: Often, 5: Always)
   Conclusion: Summarized the main points of the observation, asked the observed person if they had any questions or comments, thanked the observed person for their time and input, and explained the next steps of the study.