

# ENHANCING QUALITY IN TEACHER EDUCATION: DEVELOPING A TOOL FOR PROFESSIONAL DEVELOPMENT OF TEACHER EDUCATORS

Sabitha Mani <sup>1</sup> and Greta D'Souza <sup>2</sup>

<sup>1</sup> Research Scholar, CHRIST (Deemed to be University),  
Bengaluru, Karnataka, India. Email: [sabitha.mani@res.christuniversity.in](mailto:sabitha.mani@res.christuniversity.in),  
ORCID ID: 0000-0003-2574-0382

<sup>2</sup> PhD, CHRIST (Deemed to be University), Bengaluru, Karnataka, India.  
Email: [greta.dsouza@christuniversity.in](mailto:greta.dsouza@christuniversity.in)

DOI: [10.5281/zenodo.11096332](https://doi.org/10.5281/zenodo.11096332)

## Abstract

This study is dedicated to developing a comprehensive tool designed to evaluate the professional development requirements and pursuits of teacher educators, aiming to highlight crucial factors for enriching the quality of teacher education institutions. Its primary goal is to empower teacher educators by enabling them to pinpoint their areas of concern, nurture growth in pertinent domains, and delineate indispensable skills and activities necessary for their success in their respective roles. Through personalized approaches to professional learning and development, the study seeks to ignite a broader trajectory of quality enhancement within the sphere of teacher education. Moreover, this research aspires to add valuable insights to the ongoing discourse surrounding the elevation of standards in teacher education. By delving into the intricacies of professional development and scrutinizing measurement instruments rigorously, the study endeavours to significantly augment the quality of teacher education. Through these exertions, it aims to foster an environment conducive to continual improvement in teacher education institutions, thereby benefitting educators and learners alike. Furthermore, the research attempts to elucidate on the multifaceted landscape of professional development among teacher educators while conducting a critical assessment of the measurement instruments that underpin educational research. This critical evaluation encompasses an exploration of the consistency and validity of the constructed measurement tool, ensuring the collection of accurate and consistent data. By undertaking this comprehensive approach, the study aims to enrich the excellence of teacher education through a nuanced comprehension of professional development needs and the enhancement of measurement practices.

**Keywords:** Professional Development, Teacher Education, Measurement Instruments, Quality Enhancement, Professional Learning.

## INTRODUCTION

Quality of teaching and students' achievements are acknowledged as important factors that are affected by teacher education quality (European Commission 2013). Therefore, there has been a growing interest in teacher educators' identity, skills, roles, and professional development (Loughran, 2014; Lunenberg et al., 2014). While teacher educators can be defined as those who are involved in the education of student teachers as well as the continued professional development of in-service teachers (European Commission 2013, Czerniawski et al., 2017), the current paper deals with teacher educators who work in teacher education institutes with student-teacher for UG and PG courses. Existing works indicates that even though teacher educators' role is complex, they obtain nominal training or opportunities for professional development to accomplish their tasks. So, the relevant knowledge and skills required for teacher educators are developed after initiating work as teacher educators (Murray and Male 2005, Smith 2011). Therefore, it is important to know the skills and knowledge required for teacher educators and how they assimilate such skills and knowledge during their careers (Guberman, et al., 2019).

Scholarly investigations have concentrated on professional growth to formulate an efficient and practical depiction for teacher educators. Crafting a visual representation of such competencies and knowledge can prove arduous when it comes to the professional advancement of teacher educators, particularly amid navigating through uncharted realms characterized by unfamiliar or critical environments that pose challenges to management. This difficulty is further exacerbated if markers along this trajectory are obscured, challenging to interpret, or ambiguous. Thus, there exists a necessity to direct attention towards these cues and provide constructive avenues for contemplating how a teacher educator might initiate planning to navigate through professional development pathways (Loughran, 2014). The aim of the current study is to devise a tool delineating the professional development requisites and engagements of teacher educators, elucidating influential factors conducive to professional growth, thereby contributing significantly to the enhancement of quality in teacher education establishments.

In times of innovative challenges arising from recurring transformations in societies, there is a need to be aware of potential obstacles to teacher educators' continuous professional learning and the development of teacher education. Major challenges include a lack of collaboration within departments and professional identity confusion, as well as discrepancies between individual agency and organizational development (Hokka & Etelapelto, 2014).

Teacher educators' individual and collective interventions must be supported to enhance their continuous professional learning and organizational change. The three main paths of skills and knowledge required for the career development of teacher educators are teaching, research, and institutional leadership. Three areas are perceived as important for professional development, and the relationships between them range from mutual support and complementation to conflict over limited time resources.

The results also indicate that although research promotes teaching and institutional leadership, teacher educators find it difficult to strike a balance between the three aspects. Support for career planning was not provided by institutions, viewing teacher educators' professional development as personal rather than as a collective institutional endeavor (Guberman & Mcdossi, 2019). Moreover, understanding these challenges in professional development needs and activities helps design pathways that are essential and conducive to thriving in their working environment.

Hence, the delineation of these needs, activities, and challenges establishes a framework for constructing a professional development roadmap for teacher educators in their career progression. This aid teacher educators in determining their development trajectory, encompassing three primary areas potentially: teaching, research, and institutional leadership (Guberman & Mcdossi, 2019).

This study seeks to develop a tool to assist teacher educators in identifying their areas of concern and how they can advance in these pertinent domains of interest, as well as identifying the essential skills and activities necessary for their success as teacher educators. Consequently, the individual transformation of teacher educators through professional learning and development contributes to the enhancement of quality in teacher education.

## Professional Development of teacher Educators

In the realm of teacher education, individuals tasked with the multifaceted roles of teacher educators often find themselves ill-prepared due to minimal professional development opportunities. Consequently, upon assuming these roles, they must actively seek out relevant knowledge and skills (Guberman, MacPhail, Ulvik, Czerniawskie, Oolbekkink-Marchand, & Bain, 2019). The intricacies of teacher educators' professionalism are shaped by the dynamic interplay between institutional contexts, individual biographies, and professional practices. Thus, the concept of professionalism among teacher educators is not static but rather emerges from the complex connections among educators as individuals, their corresponding educational settings, and the wider national framework. This professionalism is subject to continual challenge and evolution, influenced by both internal factors within the education system and external pressures (Malm, 2020; Sachs, 2016).

Contemporary research suggests three primary classifications of professional advancement for teacher educators (Andic, 2020; Goodwin & Kosnik, 2013). Firstly, there exists formal professional development, which places significant emphasis on research. Within this classification, participation in professional development courses is widespread, with roughly half of teacher educators having engaged in such activities. For instance, one teacher educator orchestrated a faculty development session for colleagues, enlisting an external expert to lead the session. Furthermore, the teacher educator personally derived benefits from the course. However, the majority of professional development courses tend to be oriented towards technical skills, focusing on areas like utilizing novel Information and Communications Technology (ICT) tools. Certain courses also prioritize enhancing pedagogical methods, such as systematically gathering and reflecting on student feedback. Alternative strategies encompass engaging with international online lectures, drawing inspiration from other courses, and arranging investigational workshops or seminars.

Informal professional development among teacher educators encompasses personal learning initiatives undertaken voluntarily during free time. These activities may include enrolling in drama education courses, arts and theatre workshops, and self-study of ICT programs. Engaging in opportunities such as working abroad or collaborating with individuals from different faculties is also valued for personal professional growth. Furthermore, professional development plans typically revolve around teaching enhancement, ICT integration, curriculum development, and maintaining expertise in their respective fields (Deka, 2014; Dyer C, 2005; Enochsson & Rizza, 2009). These plans often extend to further research endeavours, writing publications, and improving research methodology skills. Additionally, there is an emphasis on personal components of professional advancement, such as pursuing internationalization efforts, seeking promotion to associate professorship, language proficiency improvement, augmented discernment of the social and radical magnitudes of teacher education, mentorship, and managing workload and stress to prevent burnout.

Research indicates that "professional development" for teacher educators involves a range of activities, such as learning from experience, informal discussions with peers, participation in professional communities, introspection, research, enrolment in formal academic programs, and assuming additional professional responsibilities (Ping, Schellings, and Beinart, 2018; Guberman et al., 2019). These activities are considered essential for effective performance within the professional context of teacher

educators. The most urgent professional learning needs identified for teacher educators include sufficient time availability, enhancement of research capabilities, utilization of information and communication technology (ICT) and online learning resources, active involvement in social media, dissemination of research findings or scholarly writing, and consideration of pedagogical principles or instructional methodologies. The professional learning requirements of teacher educators can be broadly classified into two categories: firstly, those aimed at enhancing their educational competencies in their everyday roles, and secondly, those essential for advancing their academic careers, particularly in terms of research and writing abilities.

Teacher educators prioritize improving their current strengths in educational abilities or advancing their academic trajectories instead of pursuing additional professional development in areas where they lack experience. Professional networks aid individuals in maximizing their growth in areas of necessity (Mani & Paul, 2023). For example, some teacher educators value academic pursuits, while others prioritize teaching activities and strive for further development and learning in this respect. Similarly, some express interest in topics like online education and specializing in academic management.

## CONCEPTUAL FRAMEWORK

From the earlier studies we could conclude that the professional learning and development can be mainly classified as formal, informal and future plans. Each of these items includes various activities. What teacher educators practice for their learning and development will enhance their professional development and the time and collaborations available within the working context is considered very important for the teacher educator professional development (Malm, 2020; Guberman & Mcdossi, 2019). Fig 1 suggests the important themes to be considered underneath the professional growth of teacher educators. Whether they are formal, informal, or future plans for professional development, the characteristics of activities related to the research factor are grouped under the heading of academic interests, while activities and content areas specific to teaching and teacher education are categorized as educational interests. Two items were separately noted: interest in online learning and specialization in academic administration. Thus, the study endeavors to encompass all areas that contribute to the professional development of teacher educators.

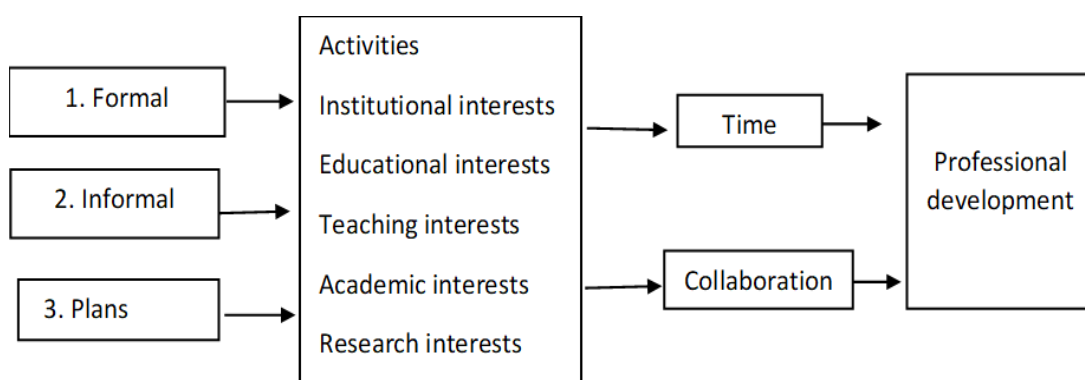


Figure 1: Professional Development Practices

## Tool standardisation

Determining the sample size is essential for all research investigations. It involves considering factors such as the main goal of the study, the outcome variable, the study plan, the intended statistical analysis, the study groups, and the method of selecting participants (Besekar, Jogdand, & Naqvi, 2023). Isaac and Michael (1995) suggested that “samples with N’s between 10 and 30 have many practical advantages” (p. 101), including simplicity, easy calculation, and the ability to test. An interval estimate of 24 to 36 is also supported by both the results of this study and existing literature in this area. Several scholars, for example, have recommended  $N = 12$  per group in studies where two or three groups might be expected. Also, if a new method is being tested, each group would ideally consist of around 24 participants to ensure reliable results. In model-based educational research, the median sample size typically falls around 30 participants. In essence, the determination of sample size involves careful consideration of multiple factors to ensure the study's validity, reliability, and practical feasibility (Besekar, Jogdand, & Naqvi, 2023). When estimating the sample size for a pilot trial, researchers often resort to simple methods, such as sample size rules of thumb. Browne (1995) refers to a common guideline suggesting the use of 30 subjects or more for estimating a parameter and 31 teacher educators are designated as sample for this study.

## Methods

Testing an instrument is deemed significant for effective communication with ordinary people (Backstoem and Hursch, 1963). For this study, a non-experimental research design was employed. Qualitative techniques were utilized to inform conceptual and instrument development. To ensure clarity of question items and understanding by respondents, pretesting of the survey questionnaire was conducted (Sekaran, 2003). Additionally, qualitative data were gathered through literature reviews and individual interviews with teacher educators to aid in interpretation and clarification of selected variables.

The study was conducted in three phases. The first, pilot phase, occurred over a seven-week period from December 2021 to January 2022. The second phase took place from February to April 2022, while the third phase spanned from June to September 2023, covering a three-week period. This phase encompassed both data collection and analysis. The present article delineates the objectives, data collection instruments, participants, and procedures for the pilot study, including expert validation and reliability testing for the internal consistency of the tool assessing the professional development of teacher educators.

## Location and Participants

The pilot phase of the study was carried out in four districts of Kerala. These districts were chosen because, in many aspects, their characteristics resemble those of the main study area. A total of 50 teacher educators were chosen for participation in the pilot phase. Participants were drawn from government, aided, and self-financing teacher education institutions. Selection procedures were based on convenience, with efforts made to ensure that the participants represented various dimensions pertinent to the study, including age, gender, professional experience, qualifications, and geographical location.

## Objectives

- To acquire a comprehensive understanding of the elements that impact the professional advancement of teacher educators.
- To identify key variables that influence the professional development of teacher educators from the above information.
- To develop instruments for measuring these key variables, and
- To pilot test the data collection instrument.

## Pilot Procedures and Activities

Various techniques were employed in the pilot phase to gain a more in-depth understanding of the professional development of teacher educators. This included conducting interviews with key informants, reviewing studies, and administering various open and closed-response questionnaires with teacher educators. The rationale, participants, and procedures for each of these techniques are described below.

## MATERIALS AND METHODS

The Professional Development Scale of Teacher Educators for Quality Enhancement (PDSTEQE) instrument is a self-reported and relative rated measure of the ability of the professionalism or professional practices among teacher educators. The instrument was developed in several phases and adjusted after each phase (Figure 2). Phases one to three are presented in this article, which explains different steps in the construction of the scale. The development process follows the arguments given on tool development in 'A Guide for Instrument Development and Validation' by Benson and Clark and the Standards of Educational and Psychological Testing (Johansson, Marcusson, & Wressle, 2016).

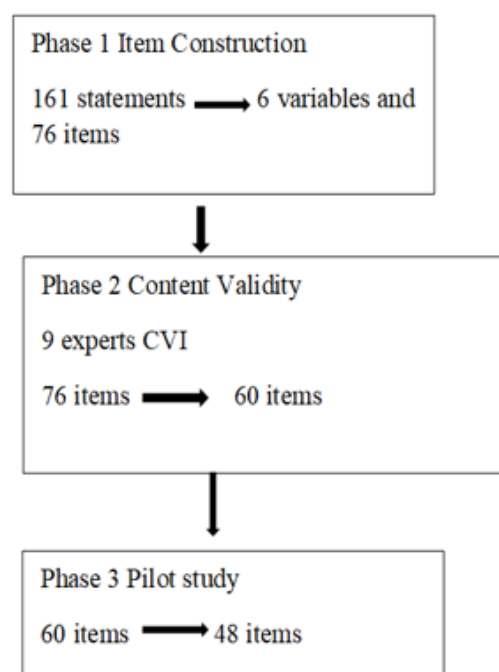


Figure 2 : Phases of Tool Construction

## **Item Construction (Phase -1)**

### ***Literature Review***

For obtaining a deep understanding of professional development, 78 articles were reviewed, out of which 76 were related to professional identities and the professional development of teacher educators. Among them, two articles provided a clear insight into the variables for professional learning and development of teacher educators. These articles include 'The professional developmental needs of higher education-based teacher educators: an international comparative need analysis' by Gerry Czerniawski et al., and 'Professional learning and development needs of Chinese university-based physical education teacher educators' conducted by Yueying Gong et al. These findings aided in the development of activities related to the academic, research, and educational interests of teacher educators.

### **Surveys**

Two professional development questionnaires were given to 40 teacher educators and obtain 38 responses. One is questionnaire on 'Professional Development for University Teachers' prepared by Dr. Maamar Missoum and the other is a five-point scale on 'Teacher's professional development' constructed by Dr. Yodida Bhutia. This process provided greater clarity on the professional development of teacher educators, as well as the need for professional development and the attitudes of teacher educators toward their professionalism. A study conducted on the role of professional communities also contributed precision to the topic of professional learning and development among teacher educators.

### **Interviews**

Interviews were conducted in six teacher education institutions, involving both principals and teacher educators. Open-ended questions were employed during the interviews, allowing for detailed responses. These questions were constructed based on reviews and surveys to delve into the in-depth qualities of teacher educator professional development. The interviews aimed to explore various issues regarding current practices of professional development among teacher educators. The information gathered during the interviews was essential for developing questionnaire items for key variables in the study's phases (chivers, 2003). Additionally, insights gained from the interviews helped elucidate the nature of professional development practices among teacher educators at various points in the discussions.

### **Scale Preparation**

Over 161 statements were generated from the reviews, surveys, and interviews. Each statement was coded to reflect one of the five main professional development categories: Institutional interests, educational interests, teaching interests, academic interests, and research interests. To develop these coding categories, 20 professional development surveys were randomly selected initially from the pool of 38. These surveys underwent analysis, and the results were summarized into the following coding scheme, which was subsequently used to code the remaining responses.

**Table 1: Categories of Professional Development**

No	Categories	Statements
1	Institutional interests	Twelve statements
2	Educational interests	Seventeen statements
3	Teaching interests	Fifteen statements
4	Academic interests	Seventeen statements
5	Research interests	Eleven statements

### **Content validity by expert panels (phase 2)**

Content validity, as defined by Rubio, Berg-Weger, Tebb, Lee, and Rauch (2021), refers to the extent to which the items on a measure assess the same content or how well the content material was sampled in the measure. Validity holds paramount importance in both practical applications and research undertakings (Almanasreh, Moles, & Chen, 2018). An expert validation assessment form was prepared, comprising all the statements and variables (76 items across six variables). This assessment form utilizes an eight-point scale, allowing experts to assess the relevance and clarity of the items. For relevance, experts can assign four points ranging from "not relevant at all" (1) to "very relevant," while clarity is evaluated using the same scale, ranging from "not clear" (1) to "very clear." Additionally, space is provided for experts to offer comments on each item.

Sixteen experts were selected and send a mail regarding the validation. Thirteen replied positively and because of inconvenience of four participants, nine experts had done the validation. A zoom meeting was conducted with the 7 experts and 2 experts send their validation by attached emails. Then the items were modified based on comments of experts. Also, the data from tool used to analyse using content validity index (CVI). The variables with mean content validity index less than 0.91, each scale items were checked and the items having item content validity index less than 0.78 is excluded from the scale. Thus, from the opinion of experts, analysis of the data 8 questions were removed, 10 were added to semi structured questionnaire and 2 questions were added and the scale confines of 60 items. This scale was given for the pilot to 50 teacher educators in four districts of Kerala and obtained 30 complete responses back.

### **Pilot study and reliability test (phase 3)**

Descriptive analyses for phase 3 (pilot study) were conducted using IBM SPSS Statistics TM for Windows, version 22.0. Reliability in terms of internal consistency for the instrument was calculated using Cronbach's alpha, a measure of homogeneity, with a recommended value above 0.70 (Johansson, Marcusson, & Wressle, 2016). The rating scale utilized in the pilot study was a 5-point Likert scale adjusted with alternatives from "always" to "never". A total of 60 items were administered to 50 teacher educators, yielding 31 responses. During pilot testing, discrepancies arose regarding the appropriate sample size for this task. While one researcher simply suggested a "small set of respondents" (Neuman, 1997), others provided more specific guidance, recommending that "a small part of the sample, say, 20 people, should be contacted and interviewed" (Monette et al., 2002). Cooper and Schindler (2011) stipulate that a sample size between 25 and 100 individuals is required for a pilot study, while Hill (1998) suggests that a range from 10 to 30 individuals is sufficient. The data collected were analyzed using Cronbach's alpha, drawing upon methodologies outlined by Collins (2007) and DeVellis (2005). Following the coding of all items related to professional development, inter-coder reliability was calculated.



Internal consistency reliability was assessed using coefficients, which ranged from 0.73 for institutional interests to 0.89 for research interests, all of which were deemed acceptable. Items (or arguments/themes) that provided lesser value for each variable were subsequently excluded from the scale. The Cronbach's alpha values for the variables are presented in the table below.

**Table 2: Components of Professional Development**

Components of professional development	Cronbach's alpha
Institutional Interests	0.73
Educational Interests	0.80
Teaching Interests	0.75
Academic Interests	0.85
Research Interests	0.89
Quality Enhancement	0.87

Two statements from the variable institutional interests (1 and 7) were excluded, along with two items from educational interests (1 and 2), two items from teaching interests (1 and 5), one statement from academic interests (10), and four items from research interests. Items that provided less value for each variable were excluded from the scale, while those with values exceeding 0.70 for each variable were included. Quality enhancement items were retained in the scale. Internal consistency was deemed good, with a Cronbach's alpha of 0.79 for the total instrument based on participants' responses. This suggests that the items measure the same dimension, namely the professional development of teacher educators.

### The Rating scale and Tool after changes during phase 3

The scale with seven frequency points was changed to a 5-point Likert scale (refer to Table 3) following the completion of the three phases of the study. Throughout each phase, items were included or excluded based on specific criteria, resulting in a total of 48 items in the tool after the third phase (see Table 4).

**Table 3: 5- point Likert Scale**

Frequency	Options
Always	Use all the opportunities for the activities
Frequently	Use all opportunities for the activities except in some difficulties
Sometimes	Whenever the person is willing and opportunities available, he/she participates
Rarely	Not that much interested in the activities
Never	It is satisfactory to do what qualifications they already have

### Overview of variables and items

The questionnaire intended for use in the data collection phase is aimed at gathering information from teacher educators. Comprising 48 questions, it specifically focuses on how teacher educators develop professionally. These questions are designed to elucidate how educators enhance their teaching skills, knowledge, and overall effectiveness in their roles. The researcher conducted the pilot test to ensure that the questions were clear, relevant, and effective in gathering the intended information. This testing process aided in gaining confidence in the questionnaire's ability to collect valuable data. The testing of data collection tools impart confidence regarding the methodologies. Having confidence in the methodologies is crucial as it ensures that the data collected will be reliable, accurate, and relevant to the research objectives (Nibrad, 2019). By testing the questionnaire and gaining confidence in methodologies, can improve the quality of data outcomes in future studies. This implies that using a

well-designed and tested questionnaire can lead to better data collection, analysis, and ultimately, more meaningful results that can contribute to the advancement of knowledge in the field of teacher education (Lancaster et al., 2004).

**Table 4: Professional Development Scale of Teacher Educators for Quality Enhancement**

Areas	Items
<b>Institutional interest</b>	Department, faculty and university administration provide enough opportunities and support to teacher educator's professional development. Necessary tools for Professional Development like appropriate rooms, computers, data show, etc. are sufficiently provided. Sufficient Time is available for Professional Development activities. PD is mostly voluntary.
<b>Educational interests</b>	I have time to read educational journals. I engage in informal conversations with my colleagues about teaching and learning. I visit other schools and teacher education institutions to learn about teaching. I am aware of current developments in teacher education.
<b>Teaching interests</b>	The knowledge of philosophy and psychology give more confidence to teaching. I have time to give immediate feedback on the progress of students I give socio-critical knowledge in addition to the course subject. I integrate technology into my teaching and learning.
<b>Academic interests</b>	I have participated in at least one international exchange or visit within three years. I am a member of professional organization/community. I participate in programs and activities organized by professional organizations/communities I participate and do presentations at conferences.
<b>Research interests</b>	I review academic journal articles, conference abstracts, etc. I participate in programs to improve my research skills. I have enough time to do research. I publish articles on my research
<b>Quality enhancement</b>	I have used my PD experience to identify and solve problems in my teaching practice. My PD experience helps me to implement initiatives My PD experience helps me to evaluate or monitor the various activities in which I engage. My PD experience helps me to review, report and embed new practices in my work to improve.

The activities within each interest were refined and organized into six components: institutional, educational, academic, teaching, research, and quality enhancement, wherever feasible (refer to examples in Tables 1 and 7). These domains collectively pertain to quality enhancement practices within teacher education institutions (Celik, 2011; Day, 1991; Cochran-Smith M. , 2003). For instance, while teaching interests and research-related activities are distinct areas, both contribute to professional development, albeit with varying degrees of emphasis depending on the specific working environment. A discussion was convened with all data collectors from phase 3 to present the findings of the pilot study and discuss suggested modifications. Subsequent adjustments resulted in minor changes, culminating in a total of 48 tasks across the six areas of interest.

## DISCUSSION

This study indicates that the instrument exhibits good content validity and is deemed effective for evaluating the professional development of teacher educators, thereby fostering quality enhancement in teacher education (Loughran, 2014). The content underwent thorough examination by professionals and experts through various means. Following input from expert panels, the number of tasks was reduced to render the instrument more feasible; nevertheless, findings from the pilot study indicated the potential for further task reduction. The pilot study proved instrumental in offering diverse perspectives and refining the instrument. Prior to the pilot study, five teacher educators reviewed the instrument and found it easy to complete, covering most of their daily activities. Similar feedback was echoed by more teacher educators during the pilot study. However, experts recommended segregating tasks and delineating different aspects such as academic, teaching, and institutional responsibilities. Consequently, the notion of categorizing tasks based on distinct areas of interest emerged. The intention of the study was to establish a uniform structure for the included activities based on activity analysis, although this framework warrants further evaluation in future studies. Additional modifications may be necessary to refine the instrument's effectiveness. One potential weakness is the instrument's departure from a strictly theory-based approach; instead, it was developed through a synthesis of experiences and input from principals, professionals, and teacher students. Given the complexity of professional identity among teacher educators involved in activity performance (Malm, 2020), this instrument does not aim to delineate the specific professional development underpinning each activity. Rather, its goal is to facilitate the identification of critical aspects within activities crucial for enhancing the quality of teacher education overall.

The professional learning needs and activities identified in earlier studies (Guberman & Mcdossi, 2019; Guberman et al., 2019) served as the foundational framework, with additional functions such as collaboration and time availability incorporated. Despite the initial intention to differentiate between learning and development activities, it became apparent that these are integral components crucial for teacher educators in their daily lives. Consequently, these areas of interest were amalgamated into integrated tasks across different activities during the phases. The structure and classification of activities into distinct interest areas (refer to Table 7) necessitates further evaluation. This classification was devised to facilitate a more systematic order when utilizing the instrument for research purposes. However, certain classifications, such as research activities, pose challenges as they could be construed as both academic and developmental endeavours, blurring the lines of characterization. Additionally, some activities exhibit potential overlaps across interest areas; for instance, dedicating time to reading could pertain to various domains of interest. Further refinement is required to streamline and enhance the efficacy of the classification system.

One significant aim was to develop an instrument versatile enough to accommodate various preferences and needs, encompassing both professional development objectives and quality enhancement goals. In practice, individual preferences vary; some teacher educators may prefer excluding research from their professional development evaluation, while others may opt out of being assessed based on administrative activities (Moiinvaziri, 2018; Putnam & Borko, 2000). The evaluation process begins with an instrument that offers a comprehensive overview,

supplemented by observations of the teacher educators' activities and inquiries into their perceptions of everyday challenges. This multifaceted approach enables a more nuanced understanding of the problems and needs encountered in occupational performance, facilitating the design of targeted interventions. In the context of working with student teachers, the perspective of the teacher educator holds significance, and professional development initiatives play a crucial role in guiding how to navigate challenges in daily work life. These actions can address the teacher educator's working environment by offering guidance on how to seek and provide support in their everyday tasks or other professional activities that may impact their performance.

A professional development evaluation should encompass an assessment of both strengths and weaknesses that can impact everyday life. The findings of this study indicate that self-reported data may yield different insights, contributing significantly to individuals' growth in both their professional and personal domains. This corroborates earlier research on professional development and aligns with studies exploring teacher educators' professional identities (Andic, 2020; Campbell, 2017; Cochran-Smith, 2005). These findings underscore the disparity between personal experiences and observable phenomena, highlighting the importance of soliciting diverse perspectives using standardized instruments. While self-reported data offer valuable insights, they inherently provide a more limited perspective compared to instrument-based evaluations. Thus, an optimal evaluation strategy necessitates a combination of both approaches. In this study, activities addressing various areas of interest exhibited substantial interrater agreement. However, a definitive conclusion regarding why certain activities garnered higher rates of agreement remains elusive.

As indicated in the literature, these activities constitute elements of performance, and teacher educators may encounter challenges with everyday tasks during the early stages of their careers (Darling-Hammond, 2017). The development of this instrument aims to effectively capture such difficulties and delineate the individual strengths and weaknesses of each educator. Further research is warranted to investigate the impact of professional development on enhancing performance quality and the efficacy of the instruments employed for assessment. The primary objective of this study was to devise an instrument capable of use during follow-up assessments, whether at the initial entry stage of teacher educators' careers or during subsequent progression phases when encountering difficulties in daily activities. Consequently, no exclusion criteria were applied based on scores, whether low or high, as it has been observed through experience that individuals may encounter challenges across various areas, albeit typically manifesting more prominently in specific domains. This inclusive approach yields valuable insights for both the planning of daily activities and the design of tailored professional development programs.

Activities such as using a computer remain a subject of generational differences. The older generation often harbours a less favourable attitude toward computer use, despite its increasing prevalence. Peeraer and Petegem (2011) and Player-Koro (2013) argue that computers are becoming more ubiquitous, necessitating their inclusion in various activities. To address potential gaps, a more comprehensive introduction and manual for computer use have been developed to minimize deficiencies. Several limitations merit discussion. The decision to exclusively involve professionals in the expert panels could be challenged. Alternately, including expert panels comprising educationists or politicians might have offered different perspectives. Nonetheless, insights gained from the pilot study proved invaluable for

refining the instrument. Implications for future research entail ongoing exploration and testing of professional development. Emphasis is placed on assessing test-retest reliability, internal consistency, and construct validity to enhance the instrument's efficacy. Additionally, a prospective study could aim to discern whether the instrument can differentiate between teacher educators at the outset of their careers and at later stages, thus informing tailored professional development initiatives.

## CONCLUSIONS

The professional development instrument functions as a self-reported assessment tool crafted to gauge the skill advancement of teacher educators and their adeptness in executing tasks geared towards improving quality within educational institutions. Its primary focus lies in evaluating participants' proficiency in undertaking Quality Enhancement (QE) tasks from their own perspective, with the intention of detecting any shifts in their practical skills over time. This instrument assumes a pivotal role in strategizing professional development initiatives and initiatives aimed at enhancing quality within the sphere of teacher education. Developed through a series of iterative phases, adjustments have been made to the instrument after each stage to enhance its effectiveness and pertinence. Initial evaluations suggest encouraging levels of content validity, indicating that the instrument adequately measures its intended constructs. However, ongoing assessments seek to further probe its reliability through methods such as test-retest reliability and internal consistency. Additionally, efforts are underway to scrutinize its construct validity, ensuring its accuracy in measuring the targeted constructs.

At its core, the instrument's design revolves around teacher educators self-reporting their experiences and perceptions regarding their professional development journey and their proficiency in executing tasks associated with quality enhancement. Participants offer insights into various facets of their professional growth and the practical skills they possess in relation to QE tasks. This feedback serves as a vital compass for identifying areas of strength and areas needing improvement, thus guiding future professional development endeavours. A notable advantage of this instrument is its adaptability and applicability across diverse contexts within educational institutions. It accommodates a broad spectrum of professional development needs and objectives, rendering it a versatile tool for educators and administrators alike. Furthermore, its iterative development process, which incorporates adjustments based on feedback and testing, ensures its continued relevance and efficacy in capturing the intricacies of teacher educators' experiences and skills. While initial assessments indicate promise in terms of content validity, ongoing efforts are focused on further scrutinizing its reliability and validity. Test-retest reliability evaluations aim to ascertain the consistency of responses over time, while internal consistency measures assess the reliability of individual items within the instrument. Construct validity assessments seek to validate the instrument's alignment with its intended constructs, instilling confidence in its utility as a means of evaluating professional development and quality enhancement initiatives. In essence, the professional development instrument serves as a valuable asset for evaluating the professional growth and capabilities of teacher educators within educational institutions. Its iterative development process and ongoing evaluation challenges ensure its continued relevance, reliability, and validity for guiding future professional development activities and enhancing the overall quality of teacher education.

### Author Declaration Form

Here by the authors declare that the work titled 'Enhancing Quality in Teacher Education: Developing a Tool for Professional Development of Teacher Educators' is an original work, and it has not been published in any form prior to submitting with Community Practitioner Journal and the work has not been submitted elsewhere concurrently. The authors don't have any conflicts of interest and the corresponding author has the permission of co-author for submitting the work with Community Practitioner Journal.

### References

- 1) Albert, B., & Tullis, T. (2013). *Measuring the User Experience Collecting, Analyzing and Presenting Usability Metrics*. Waltham, USA: Morgan Kaufman .
- 2) Alsafari, K., & Ursin, J. (2019). Implimentation of Quality Assurance Standards in European Higher Education: Does Context Matter? *Quality in Higher Education*, 1-18. doi:<https://doi.org/10.1080/13538322.2019.1578069>
- 3) Andic, D. (2020). Continuining Professional Development of Teachers in Education for Sustainable Development- Case study of the Republic of Croatia. *Teacher Development*, 1-22.
- 4) Anthony, G., Hunter , J., & Hunter, R. (2015). Prospective Teachers Development of Adaptive Expertise. *Teching and Teacher Education* 49, 108-117.
- 5) Aspfors, J., & Eklund, G. (2017). Explicit and Implicit Perspectives on Research- Based Teacher Education: Newly Qualified Teachers' Experiences in Finland. *Journal of Education for Teaching*, 400-413.
- 6) Baartmana, L. K., Bastiaensa, T. J., & Krischnera, P. A. (2007). Teachers' Opinions on Quality Criteria for Competancy Assessment Programs. *Teaching and Teacher Education*, 857-867.
- 7) Bastin, T. (2020). *Change Theory and the Implementation of the 10-year Education Plan: Impacts on Educators in the New Brunswick School System*. Brunswick: The university of New Brunswick.
- 8) Bell, T. B., Frecka, T. J., & Solomon, I. (1993). The relationship Between Research Productivity and Teaching Effectiveness: Empirical evidence for Accounting Educators. *Accounting Horizons*, 33-49.
- 9) Bendermacher, G. W., Egbrink, M. G., Wolfhagen, H. A., Leppink, J., & Dolmas, D. H. (2019). Reinforcing Pillars for Quality Culture Development: A Path Analytic Model. *Studies in Higher Education*, 44(4), 643-662. doi:doi: 10.1080/03075079.2017.1393060
- 10) Besekar, S., Jogdand, S., & Naqui, W. (2023, October). Sample Size in Educational Research: A Rapid Synthesis. *F1000Research*, 1-11. doi:<https://doi.org/10.12688/f1000research.141173.1>
- 11) Best, J. W., Kahn, J. V., & Jha, A. K. (2019). *Research in Education*. Noida: Pearson India Education Services Pvt. Ltd .
- 12) Bourn, D. (2016, March 31). Teachers as agents of social change. *International Journal of Development Education and Global Learning*, 7(3), 63-77. doi:10.18546/IJDEGL.07.3.05
- 13) Bray-Clark, N. &. (2003). Self-efficacy beliefs and teacher effectiveness: Implications for professional. *Professional Educator*, 13-22.
- 14) Campbell, C. (2017). Developing Teachers' Professional Learning: Canadian Experience and Evidence in a world of Educational Improvement . *Canadian Journal of Education*, 1-33.
- 15) Cardoso, S., Rosa, M. J., & Stensaker, B. (2015). Why is Quality in Higher Education not Achieved? The Views of Academics. *Assessment and Evaluation in Higher Education*, 950-65. doi:10.1080/02602938.2015.1052775
- 16) Celik, S. (2011). Characteristics and Competencies for Teacher Educators: Addressing the Need for Improved Professional Standards in Turkey . *Australian Journal of Teacher Education* , 73-87.
- 17) Charteris, J. (2019). Quality Assurance Through Collaborative Inquiry Among Teacher Educators. *Encyclopedia of Teacher Education*, 1-7.

- 18) Chavan, A. A., & Kandagale, V. S. (2014). Development of Critical Thinking Skill Programme for the Student Teachers of Diploma in Teacher Education colleges. *Issues and Ideas*, 25-37.
- 19) Cochran-Smith, M. (2005). Teacher educators as Researchers: multiple perspectives. *Teaching and Teacher Education*, 21(2), 219-225. doi:<https://doi.org/10.1016/j.tate.2004.12.003>
- 20) Cochran-Smith, M. (2004). The Problem Of Teacher Education. *Journal of Teacher Education*, 295-299.
- 21) Cochran-Smith, m. (2003). Learning and unlearning: the education of teacher educators. *Teaching and Teacher Education*, 5-28.
- 22) Cochran-Smith, M. (2003). Learning and Unlearning: The Education of Teacher Educators. *Teaching and Teacher Education*, 5-28.
- 23) Cochran-Smith, M. (2005). Teacher Educators as researchers: Multiple Perspectives. *Teaching and Teacher Education*, 219-225.
- 24) Cochran-Smith, m. (2005). Teacher Educators as Researchers: multiple perspective. *Teaching and Teacher Education*, 219-225.
- 25) Cochran-Smith, M., & Lytle, S. (1999). The Teacher Research Movement: A Decade Later. *Educational Researcher*, 15-25.
- 26) Cochran-Smith, M., & Vilegas, A. M. (2015). Framing Teacher Preparation Research: An Overview of the field, Part 1. *Journal of Teacher Education*, 7-20.
- 27) Cochran-Smith, M., Piazza, P., & Power, C. (2013). The Politics of Accountability: Assessing Teacher Education in the United States. *The Educational Forum*, 6-27.
- 28) Creswell, J. W. (2014). *Research Design: Qualitative, Quantitative and Mixed Methods Approaches*. New Delhi: SAGE Publications India Pto. Ltd.
- 29) Daniel, J. C., & Franklin, I. B. (2014). Quality Enhancement in Higher Education Through Curriculum Designing. In K. R. G. (Ed.), *In Proceedings of the National Seminar on Quality Enhancement of Higher Education through Innovative Teaching - Learning Methods* (pp. 26-28). Cuddalore: ResearchGate.
- 30) Darling-Hammond, L. (2006). Assessing Teacher Education the Usefulness of Multiple Measures for Assessing Program Outcomes. *Journal of Teacher Education*, 120-138.
- 31) Darling-Hammond, L. (2017). Teacher education around the world: What can we learn from international practice? *European Journal of Teacher Education*, 291-309.
- 32) Darling-Hammond, L., & Bransford, J. (2005). Preparing Teachers for a Changing World: What Teachers Should Learn and Be Able to Do. Jossy-Bass. *APA PsycNet* <https://psycnet.apa.org/record/2005-13868-000>.
- 33) Darling-Hammond, L., Newton, S. P., & Wei, R. C. (2013). Developing and Assessing Beginning Teacher Effectiveness: the Potential of Performance Assessments. *Educational Assessment, Evaluation and Accountability*, 179-204.
- 34) Day, C. (1991). Quality Assurance and Professional Development. *Journal of In-Service Education*.
- 35) Deka, M. (2014). Facilities Available for Professional Development of Teacher Educators-A Study on B.Ed Colleges of Tinsukia District of Assam. *International Journal of Humanities, Arts, Medicine and Sciences*, 15-18.
- 36) Delandshere, G., & Arens, S. A. (2003). Examine the Quality of the Evidence in Preservice Teachers Portfolio. *Journal of Teacher Education*, 57-73.
- 37) Dey, N. (2011). Quality Assurance and Accreditation in Higher Education in India. *Academic Research International*, 104-110.
- 38) Dilshad, R. M. (2010). Assessing Quality of Teacher Education: A Student Perspective. *Pakistan Journal of Social Sciences*, 85-97.

- 39) Dyer, C. (2005). Decentralisation to improve teacher quality? District Institutes of Education and Training in India. *Compare: A Journal of Comparative and International Education*, 139-152.
- 40) Dyer, C. &. (2004). Knowledge for teacher development in India: the importance of 'local knowledge' for in-service education. *International Journal of Educational Development*, 39-52.
- 41) Elassy, N. (2015). The concepts of quality, quality assurance and quality enhancement. *Quality Assurance in Education*, 250-261.
- 42) Enochsson, A. B. (2009). *ICT in initial teacher training*. Paris: OECD, Sweden Country.
- 43) Enochsson, A. B., & Rizza, a. C. (2009). *ICT in initial teacher training: Research review*. Paris: OECD: EDU Working Paper No. 38.
- 44) Flores, M. A. (2011). Curriculum of Initial Teacher education in Portugal: new contexts, old problem!. *Journal of Education for Teaching*, 461-470.
- 45) Gale, N. K., Cameron, E., Rashid, S., & Redwood, S. (2013). Using Framework Method for the Analysis of Qualitative Data in Multi-disciplinary Health Research. *BMC Medical Research Methodology*, 13. doi:doi:10.1186/1471-2288-13-117
- 46) Girard, F., Linton, N., & Besner, J. (2005). Professional Practice in Nursing: A Framework. *Nursing leadership*, 18(2), 0-0. Retrieved 10 22, 2021, from <https://longwoods.com/content/19028>
- 47) Goel, D. R. (2012). Teacher education Scenario in India: current problems and concern. *MIER Journal of Educational Studies, Trends & Practices*, 231-242.
- 48) Goodwin, A. L., & Kosnik, C. (2013). Quality Teacher Educators = Quality Teachers? Conceptualizing Essential Domains of Knowledge for those who teach Teachers. *Teacher Development*, 334-346.
- 49) Gore, j. &. (2007). Data-driven Guidelines for High quality Teacher education. *Australian Association for Research in Education*, 1-11.
- 50) Graham, J. &. (2006). Models of Quality in Teacher Education. *Oxford Review of Education*, 161-178.
- 51) Grossman, P., Wineburg, S., & Woolworth, S. (2001). Toward a Theory of Teacher Community. *The Teachers College Record*, 942-1012.
- 52) Guberman, A., & Mcdossi, O. (2019). Israeli Teacher Educators' Perceptions of their Professional Development Paths in Teaching, Research and Institutional Leadership. *European Journal of Teacher Education*, 42(4), 507-522. doi:doi: 10.1080/02619768.2019.1628210
- 53) Guberman, A., MacPhail, A., Ulvik, M., Czerniawskie, G., Oolbekkink-Marchand, H., & Bain, Y. (2019). The Professional Development of Higher Education- based Teacher Educators: Needs and Realities. *Professional Development in Education*, 45(5), 848-861. Retrieved from <https://doi.org/10.1080/19415257.2018.1529610>
- 54) Gupta, A., Srivastava, S., Yadav, S., & Nagi, B. S. (2021). Ranking and Accreditation Systems: Challenges Before Indian Higher Education. *Turkish Journal of Computer and Mathematics Education*, 12, 3140-3152.
- 55) Gvaramadze, I. (2008). From Quality Assurance to Quality Enhancement in the European Higher Education Area. *European Journal of Education*, 443-455.
- 56) Hackett, A., & Strickland, K. (2018). Using the Framework Approach to Analyse Qualitative Data: a Worked Example. *Nurse Researcher Evidence & Practice Data Management*, 1-9.
- 57) Hoban, G. F. (2004). Seeking quality in teacher education design: A four-dimensional approach. *Australian Journal of Education*, 117-133.
- 58) Hokka, P., & Etelapelto, A. (2014). Seeking New Perspectives on the Development of Teacher Education: A Study of the Finnish context. *Journal of Teacher Education*, 65(1), 39-52. doi:doi: 10.1177/0022487113504220
- 59) Ingvarson, L., & Rowley, G. (2017). Quality assurance in Teacher Education and Outcomes: a Study of 17 Countries. *Educational Researcher*, 46(4), 177-193. doi:doi: 10.3102/0013189X17711900



- 60) Isotalo, S. (2017). Teacher Educators' Professional Identity Formation in a Challenging Context: Experience from Eritrea. Jyvaskyla, Finland: University of Jyväskylä.
- 61) Jain, R., Sinha, G., & De, S. K. (2010). Service quality in higher education: An exploratory study. *Asian Journal of Marketing*, 144-154.
- 62) Jennifer, C. (2019). Quality Assurance Through Collaborative Inquiry Among Teacher Educators. *Encyclopeia of Teacher Education*, 1-9.
- 63) Johansson, M. M., Marcusson, J., & Wressle, E. (2016). Development of an Instrument for Measuring Activities of Daily Living in Persons with Suspected Cognitive Impairment. *Scandinavian Journal of Occupational Therapy*, 1-10, <http://dx.doi.org/10.3109/11038128.2016.1139621>.
- 64) Kelly J, D., & Richard M, F. (2000). Study Design in Qualitative Research—2: Sampling and Data Collection Strategies. *Education for Health*, 13 (2), 263-271.
- 65) Kitchen, J. &. (2008). Action research in teacher education. *Action Research*, 7-28.
- 66) Klecka, C. L., Donovan, L., Venditti, K. J., & Shoot, B. (2008). Who is a Teacher Educator Enactment of Teacher Educator Identity through Electronic Portfolio Development. *Action in Teacher Education*, 83-91.
- 67) Klink, M. V., Kools, Q., Avissar, G., White, S., & Sakata, T. (2017). Professional Development of Teacher Educators: What do they do? Findings from an Explorative International Study. *Professional Development in Education*, 43(2), 163-178. doi:doi: 10.1080/19415257.2015.1114506
- 68) Knight, P. (2006). Quality Enhancement and Educational Professional Development. *Quality in Higher Education*, 29-40.
- 69) Koster, B., Brekelmans, M., Korthagen, F., & Wubbels, T. (2005). Quality requirements for Teacher educators. *Teaching and Teacher Education*, 157-176.
- 70) Kristensen, B. (2010). Has External Quality Assurance Actually Improved Quality in Higher Education Over the Course of 20 Years of the 'Quality Revolution'? *Quality in Higher Education*, 153-157.
- 71) Krokfors, L., Kynaslahti, H., Stenberg, K., Toom, A., Maaranen, K., Jyrhama, R., . . . Kansanen, P. (2011). Investigating Finnish Teacher educators' views on research-based teacher education. *Teaching Education*, 1-13.
- 72) Lawson, T., & et al. (2015). Research on Teaching Practicum - A Systematic Review. *European Journal of Teacher Education*, 309-407.
- 73) Lawson, T., Chakmak, M., Gunduz, M., & Busher, H. (2015). Research on teacher practicum-a systematic review. *European journal of Teacher Education*, 392-407.
- 74) Levine, T. H. (2011). Features and Strategies of Supervisor Professional Community as a Means of Improving the Supervision of Preservice Teachers. *Teaching and Teacher Education*, 930-941.
- 75) Liston, D., Borko, H., & Whitcomb, J. (2008). Teacher educator's Role in Enhancing Teacher Quality. *Journal of Teacher Education*, 111-116.
- 76) Loughran, J. (2014). Professionally Developing as a Teacher Educator. *Journal of Teacher Education*, 65(4), 271-283. doi:doi: 10.1177/0022487114533386
- 77) Loughran, J. (2014). Professionally Developing as a Teacher Educator. *Journal of Teacher Education*, 271-283.
- 78) Lunenberg, M., & Willemse, M. (2006). Research and Professional Development of Teacher educators. *European Journal of Teacher Education*, 81-98.
- 79) Lunenberg, M., Korthagen, F., & Swennen, A. (2007). The Teacher Educator as a Role Model. *Teaching and Teacher Education*, 586-601.
- 80) Malek, M. A., & Mishra, L. (2016). Quality Assurance in Teacher Education. *International Journal of Peace, Education and Development*, 25-29.

- 81) Malm, B. (2020). On the Complexities of Educating Student Teachers: Teachers Educators' Views on Contemporary Challenges to their Profession. *Journal of Education for Teaching*, 46(3), 351-364. doi:doi: 10.1080/02607476.2020.17395
- 82) Merriam, S. B. (2001). *Qualitative research and case study applications in education* , . San Francisco: CA: Jossey-Bass.
- 83) Mishra , P., & Koehler, M. J. (2006). Technological pedagogical content knowledge: A framework for teacher knowledge. *teachers college record*, 1017-1054.
- 84) Murray, J. &. (n.d.). Becoming a Teacher Educator.
- 85) Murray, J. (2008). Teacher Educators' Induction into Higher Education: Work-based Learning in the Micro Communities of Teacher Education. *European Journal of Teacher Education*, 117-133.
- 86) Murray, J., & Trevor, M. (2005). Becoming a Teacher Educator: Evidence from the Field. *Teaching and Teacher Education*, 125-142.
- 87) Nasim, K., Sikandar, A., & Tian, X. (2019). Twenty years of research on Total Quality Management in Higher Education: A systematic Literature Review. *Higher Education Quarterly*, 1-25. doi:doi: 10.1111/hequ.12227
- 88) Nevin, A. I., S, T. J., & Villa, R. A. (2009). Collaborative Teaching for Teacher educators-What does the research say? *Teaching and Teacher education*, 569-574.
- 89) Noddings, N. (2012). *Education and Democracy in the 21st Century*. New York, USA: Teachers' College Press.
- 90) Pecheone, R. L., & Chung, R. R. (2006). Evidence in Teacher Education the Performance Assessment for California Teachers. *Journal of Teacher Education*, 22-36.
- 91) Peeraer, j., & Petegem, P. V. (2011 ). ICT in Teacher Education in an emerging developing country: Vietnam's Baseline situation at the start of 'The Year of ICT'. *Computer and Education* 56, 974-982.
- 92) Player-Koro, C. (2013). Hype, hope and ICT in teacher education: a Bernsteinian perspective. *Learning, Media and Technology*, 26-40.
- 93) Popham, W. (2011). Assessment Literacy Overlooked: A Teacher Educator's Confession. *The Teacher Educator*, 265-273.
- 94) Raina, v. k. (1995). Teacher educators in India: In Search of an Identity. *Report National Council of Educational Research and Training*, 45-52.
- 95) Ritchie, J., & Spencer , L. (2002). *Qualitative Data Analysis for Applied Policy Research In: The Qualitative Researcher's Companion* . (M. B. Miles, & A. M. Huberman, Eds.) Thousand Oaks: CA: SAGE. doi:<https://dx.doi.org/10.4135/9781412986274.n12>
- 96) Sachs, J. (2016). Accountability, Standards and Activism: A Challenge or Opportunity for Teacher Education. *Quality and Change in Teacher Education*, 251-262. Retrieved from [https://doi.org/10.1007/978-3-319-24139-5\\_15](https://doi.org/10.1007/978-3-319-24139-5_15)
- 97) Sahito, Z. &. (2017). Dimensions of Quality in Teacher Education: Perception and Practices of Teacher Educators in the Universities of Sindh, Pakistan . *International Journal of Higher Education* , 44-54.
- 98) Saigal, A. (2012). Demonstrating a situated Learning for in-service Teacher education in rural India: The Quality Education Programme in Rajasthan. *Teaching and Teacher Education*, 1009-1017.
- 99) Schulz, R., & Mandzuk, D. (2005). Learning to Teach, Learning to Inquire: A 3-year Study of Teacher candidates' Experiences. *Teaching and Teacher Education*, 315-331.
- 100) Sharma, S. (2014). Teacher Education- Emerging Trends and Challenges. *IRJMSH*, 2277-9809.
- 101) Shultz, S. (2002). Assessing Growth in Teacher Knowledge. *Issues in Teacher Education*, 11(1), 49-64.

- 102) Smith, K. (2005). Teacher Educators Expertise: What Do Novice Teachers and Teacher educators Say ? . *Teaching and Teacher education*, 177-192.
- 103) Snoek, M., Swennen, A., & Klink, M. (2011). The Quality of Teacher Educators in the European Policy Debate: Actions and Measures to Improve the Professionalism of Teacher educators. *Professional Development in Education*, 651-664.
- 104) Snoek, M., Swennen, A., & Klink, M. V. (2011). The Quality of Teacher Educators in the European Policy Debate: Actions and Measures to Improve the Professionalism of Teacher Educators. *Professional Development in Education*, 651-664.
- 105) Steel, N. M. (2012). Education of Teacher Educators. *Encyclopaedia of the Sciences of Learning*.
- 106) Stensaker, B. (2008). Outcomes of Quality Assurance: A Discussion of Knowledge, Methodology and Validity. *Quality in Higher Education*, 3-13.
- 107) Swennen, A., & Bates, T. (2010). The Professional Development of Teacher Educators. *Professional Development in Education*, 1-7.
- 108) Swennen, A., & Lunenberg, M. &. (2008). Preach what you teach! Teacher educators and congruent teaching. *Teachers and Teaching theory and practice*, 531-542.
- 109) Swennen, A., Jones, K., & Volman, M. (2010). Teacher Educators: their Identities, Sub-identities and Implications for Professional Development. *Professional Development in Education*, 131-148.
- 110) Sywelem, M. G. (2014). Accreditation Models in Teacher Education: The Case of United States, Australia and India. *International journal of Education and Research*, 2-3.
- 111) Ten Dam, G., & Blom, S. (2006). Learning Through Participation. The Potential of School-based Teacher Education for Developing a Professional Identity. *Teaching and Teacher Education*, 647-660.
- 112) Tripathi, H. (2019). Higher Education in Kerala: Development, Equity and Issues of Access. *South Asia Research*, 1-19. doi:10.1177/0262728019872054
- 113) Trumbull, D., & Flute, K. (2008). What can be Learned from Writing about Early Field Experiences? *Teaching and Teacher Education*, 1672-1685.
- 114) Velaskar, P. (2010). Quality and Inequality in Indian Education: Some Critical Policy Concerns1 . *Contemporary Education Dialogue* , 58-91.
- 115) Vries, B., Swennen, A., & Dengerink, J. (2020). Design Principles for the Professional Development of Teacher Educators: Illustrations of Narration, Dialogue and Self-study. *parezja*, 47-54.
- 116) Walia, K. (2004). Reform Of Teacher Education In India . *Reform of Teacher Education in Asia-Pacific in the New Millennium: Trends and Challenge*, 93-106.
- 117) Walia, k. R. (2001). Reforms In Teacher Education In India. *Journal of Educational Change* , 239-256.
- 118) While, A. (1994). Collecting Data Using a Semistructured Interview: A Discussion. *Journal of Advanced Nursing*, 328-335.
- 119) Whitty, g. (2010). Quality Control in Teacher Education. *British Journal of Educational Studies*, 38-50. Wise, A. (1996). Building a System of Quality Assurance for the Teaching Profession: Moving into the 21st century. *Phi Delta Kappan*, 78(3), 191-192.
- 120) Wolf, K., & Whinery, B. &. (1995). Teaching Portfolios and Portfolio Conversations for Teacher Educators and Teachers. *Action in Teacher Education*, 30-39.
- 121) Zeichner, K. (2005). Becoming a Teacher educator: Personal Perspective. *Teaching and Teacher Education*, 117-124.