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Developing A Strategic Framework For Professional Competency Assessment In Teacher Education

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ABSTRACT

This study offers a strategic framework for professional competence assessment in teacher education, recognizing the necessity for a systematic, comprehensive approach to evaluating core capabilities. To fulfill the needs of dynamic educational contexts, teacher educators must possess a diverse set of pedagogical, content, technical, research, assessment, and reflective practice abilities. Current fragmented assessment procedures fail to reflect the multidimensional character of these competences, resulting in a significant deficit in teacher preparation programs. This paradigm emphasizes comprehensive evaluation, contextual relevance, and continual professional improvement, drawing on educational theories such as Bloom's Taxonomy, the TPACK framework, and the Theory of Multiple Intelligences. Core competencies are evaluated using a variety of approaches, including formative and summative assessments, teaching demonstrations, research projects, and reflective practices. This framework promotes continuous development among teacher educators by aligning with international standards and ensuring flexibility and global significance. The study emphasizes the value of realistic evaluations that reflect real-world teaching circumstances, giving policymakers and institutions a powerful tool for improving teacher training programs. This approach eventually leads to better teaching results and prepares future educators to flourish in changing

educational contexts.

INTRODUCTION

In order to prepare future educators to fulfill the needs of dynamic and changing educational contexts, teacher educators play a critical role. A combination of professional abilities, including content, pedagogical, technological, research, and evaluation and Professional ethical skills, are necessary for teacher educators to carry out this position successfully (Shulman, 1986; Mishra & Koehler, 2006). These skills help teachers not only educate, but also adapt to different classroom situations, include creative teaching strategies, and encourage pupils to think critically. The possibility for improving teacher preparation programs has led to a great deal of attention in professional competence assessment in teacher education. Competency-based methods emphasize the development of professional attitudes and practical abilities that correspond with the demands of teaching in in reality (Mulder, 2014). But one of the biggest obstacles is the absence of a comprehensive and organized framework for evaluating these competencies. The multifaceted nature of professional development is not well captured by the fragmented approaches that are frequently used in current practices (Gulikers et al., 2008). By framing out a framework for the evaluation of professional competences in teacher education, this study aims to fill this gap. The framework covers essential competencies, assessment principles, and essential methods to ensure a comprehensive and thorough assessment procedure. It is based on current competence models and educational theories. In order to meet the various demands of teacher educators and their trainees, the study highlights the significance of inclusive, and flexible assessment procedures.

NEED AND SIGNIFICANCE

Professional competences including content knowledge, pedagogical knowledge, technology integration, research involvement, and assessment abilities are essential in teacher education because they prepare teachers to fulfill the demands of the modern classroom (Darling-Hammond, 2017). However, the way in which teacher education programs evaluate and certify teacher educators has become inconsistent due to the lack of a clear and systematic framework for evaluating these competences. The gap is especially noticeable in competency areas like as technology integration, where continual skill development and evaluation are necessary due to the quick evolution of digital technologies (Koehler et al., 2014). The disorganized nature of current competency evaluation processes is highlighted by existing research.

While some programs concentrate on certain areas, including topic knowledge or pedagogy, they frequently overlook holistic evaluation that takes into account interrelated competences necessary for successful instruction (Voogt et al., 2013). Furthermore, the multifaceted nature of professional practice is not well captured by conventional evaluation techniques like written assessments or isolated classroom presentations (Knight, 2015). This shortcoming highlights how urgently a systematic framework emphasizing thorough, empirically supported, and flexible evaluation techniques is needed. By putting out a conceptual framework for professional competency evaluation in teacher education, this study has the ability to address these issues, which is what makes it significant. A framework like this would ensure:

Authenticity: Relating assessment procedures to professional and instructional contexts (Zeichner & Liston, 2013).

Comprehensiveness: including a broad range of competencies, such as reflective, practical, and cognitive aspects (Shulman, 1987).

Adaptability: Taking into account various institutional settings and the latest advances in technology (Darling-Hammond, 2017).

This study helps enhance the standard of teacher education programs by offering a strategic framework for assessing competencies. It encourages ongoing professional development and gives educational institutions the ability to better train teachers for dynamic classroom contexts. In order to ensure compliance with global best practices, the framework may also be used as a model for incorporating global competence requirements into regional teacher education programs (European Commission, 2013).

THEORETICAL FRAMEWORK: A REVIEW OF KEY THEORIES AND THEIR RELEVANCE

Different educational theories offer a fundamental lens through which to view the formation, assessment, and evaluation of competencies while creating a strategic framework for professional competence assessment in teacher education. The development of assessment techniques that may accurately gauge the multifaceted character of the professional competences needed by teacher educators is guided in part by these presumptions. The following section providing a comprehensive theoretical framework for the study.

The Theory of Multiple Intelligences (Gardner, 1983)

According to Howard Gardner's Theory of Multiple Intelligences, human intelligence is really a collection of unique modalities rather than a single, constant trait. This theory emphasizes the significance of identifying and evaluating the various ways that teacher educators exhibit their abilities in the setting of teacher education. For example, although some teacher educators demonstrate great intrapersonal intelligence via self-reflection and professional growth, others may excel in interpersonal skills and establish relationships with pupils.

These different skills should be taken into consideration by the competence assessment strategy framework, which should include tests that identify various types of intelligence. To ensure a thorough grasp of teacher educators' competencies, this might use reflective diaries, hands-on demonstrations, and interpersonal assessments like peer evaluations.

Social Learning Theory (Bandura, 1977)

The importance of social interaction, observation, and modelling in learning is emphasized by Albert Bandura's Social Learning Theory. This idea holds that people pick up skills and habits via social interaction and observation of others. This is especially important communication, classroom management, and instructional strategies. Effective practices are frequently modelled by teacher educators, and their students—who are aspiring teachers—learn from these interactions and observations.

By assessing teacher educators' ability to serve as role models for professional practices, the competence assessment framework can incorporate social learning aspects. Evaluations of teaching practices, observational rubrics, and peer assessments are useful tools for gauging how successfully teacher educators exhibit competence to their students.

Bloom’s Taxonomy of Educational Objectives (Bloom, 1956)

Bloom's Taxonomy, a hierarchical framework, is used to classify learning objectives based on cognitive complexity. Knowledge, comprehension, application, analysis, synthesis, and evaluation are its six stages. The taxonomy offers a helpful framework for classifying skills and developing assessments that gauge different cognitive ability levels. From comprehending theoretical concepts to applying and synthesizing them in intricate educational situations, teacher educators' depth of knowledge and cognitive engagement may be assessed using Bloom's Taxonomy.

Bloom's Taxonomy should be incorporated into the competence assessment framework to guarantee that teacher educators are evaluated on a variety of cognitive engagement levels. Assessments, for example, might gauge the acquisition of knowledge (such as through written tests), the practical application of skills (for example, lesson preparation), and higher-order thinking (for example, action research projects and reflective evaluations). This provides a thorough evaluation of professional skills and intellectual involvement.

Theories of Professional Development (Guskey, 2000)

Guskey's professional development model claims that in order to produce quantifiable improvements in teacher practice, successful professional development requires defined objectives, ongoing support, and chances for evaluation. With an emphasis on constant improvement and adaptation, this theory emphasizes the necessity for teacher educators to participate in continuing professional development and incorporate new information into their instructional strategies.

Tools for assessing the effectiveness of teacher educators' professional development activities and their capacity to apply what they have learned to better teaching practices should be part of the strategic competence evaluation framework. Methods of assessment might include monitoring progress over time, assessing modifications to instructional strategies, and calculating the effect on student learning. This approach places a strong emphasis on development, introspection, and the continuous process of professional competence enhancement.

Competency-Based Education (CBE)

Instead of adhering to a traditional time-based curriculum, competency-based education (CBE) is a method of teaching in which students progress when they have mastered specific skills (Wiggins & McTighe, 2005). CBE in teacher education emphasizes the acquisition of specific knowledge and expertise needed for successful teaching. This model places a strong emphasis on the necessity of assessment procedures that precisely identify capabilities, compare them to predefined criteria, and guarantee that all teachers possess these competencies prior to certification.

Specific capabilities (such as research abilities, technological integration, and pedagogical expertise) will be defined by the competence assessment framework and aligned with professional standards. Additionally, in accordance with CBE principles, the framework will guarantee that evaluations are measurable and outcome-based.

TPACK (Technological Pedagogical Content Knowledge) Framework

Mishra and Koehler (2006) created the TPACK framework, which emphasizes the integration of three important knowledge domains: technology, pedagogy, and content. This approach is particularly pertinent to competence evaluation as it assesses how successfully teacher educators incorporate technology into their teaching methods. In order to provide a comprehensive assessment of a teacher educator's abilities, The TPACK framework suggests that assessments should measure a teacher educator's ability to merge content knowledge, teaching strategies, and technological tools in a cohesive manner.

In order to evaluate how teacher educators integrate digital tools with content and pedagogy to improve teaching effectiveness, the proposed competence assessment framework would have a dimension dedicated to assessing technology integration using the TPACK model.

Professional Standards and Competency Models

The competencies needed for teacher educators have been identified using a variety of international competency models and professional standards, including the European Framework for the Digital Competence of Educators (DigCompEdu) and the International Society for Technology in Education (ISTE) standards. These standards emphasize pedagogical knowledge, technology usage, communication skills, and professional development—all crucial domains of competency for modern educators.

The framework will align with these international competency standards to ensure that the proposed assessments are relevant, rigorous, and globally recognized.

The 70:20:10 Learning Model (Harrison, 2014)

According to the 70:20:10 model of learning, people pick up 70% of their abilities from work-related experiences, 20% through social interactions, and 10% through formal education. This paradigm emphasizes how crucial experience and informal learning are to the growth of professional abilities. According to this model, teacher educators can better develop competencies like pedagogical expertise, technological integration, and assessment literacy through collaborative professional development, mentorship, and real-world teaching experiences as opposed to just academic or classroom-based learning.

The framework should include evaluation techniques that examine skills acquired via professional development activities, peer collaborations, and real-world teaching experiences. Reflective techniques that emphasize experience learning, action research projects, may all be a part of this. Assessments should also emphasize practical applications and how teacher educators modify their classroom knowledge and abilities.

A strong basis for creating a strategic framework for professional competence evaluation in teacher education is provided by the integration of all of these theoretical viewpoints, which range from the TPACK model to Multiple intelligence Theory. Collectively, these ideas highlight how evaluations must take into consideration both the practical and cognitive aspects of professional competence. Through the integration of many assessment techniques and an emphasis on experiential learning, reflection, and continuous professional growth, the suggested framework seeks to provide a thorough and flexible instrument for evaluating the competencies of teacher educators.

CONCEPTUALIZING THE FRAMEWORK FOR PROFESSIONAL COMPETENCY ASSESSMENT IN TEACHER EDUCATION

1. Core Competencies to be Assessed

Pedagogical Knowledge: Knowledge and understanding of effective instructional techniques and procedures that are applicable to a variety of subject areas (Shulman, 1987).

Content Knowledge: depth of subject-matter knowledge and the capacity to apply it to instructional strategies (Mishra & Koehler, 2006).

Technology Integration Competency: Capacity to successfully integrate digital tools and resources into instruction and present model of this integration for aspiring educators (Koehler et al., 2014).

Research Competency: Ability to engage, apply, and carry out research to enhance teaching (Zeichner & Liston, 2013).

Assessment Competency: Understanding and ability in creating and executing assessment strategies that accurately gauge the progress of students and apply the results to improve educational opportunities. (Darling-Hammond, 2017).

Reflective Practice: the capacity to evaluate instructional strategies critically and make ongoing improvements. (1983).

2. Principles Guiding the Framework

Holistic Assessment

The framework should assess the psychological and behavioural aspects of teacher educators' skills in addition to their cognitive and technical characteristics. Holistic assessment draws from the work of Knight (2015), who argues for considering the full spectrum of an educator's abilities, including professional attitudes, reflective capacity, and interpersonal skills.

This approach ensures that teacher educators are assessed comprehensively, capturing both hard and soft skills.

Competency-Based Approach

The framework will be centered on specific, measurable attributes that represent the practical requirements of the teaching profession, in accordance with the concepts of competency-based education (CBE) (Wiggins & McTighe, 2005).

By ensuring that assessments are accurate consistent, and in line with professional standards, this approach guarantees that readiness for the classroom.

Continuous Professional Growth

Assessments need to gauge present abilities while also promoting lifelong learning via peer interactions, mentorship, and reflective practices.

By incorporating professional growth into the assessment model, the framework promotes lifelong learning and adaptation, essential traits for teacher educators.

Authenticity and Contextual Relevance

the framework should assess competencies in authentic, real-world contexts. This involves performance-based assessments such as teaching demonstrations and action research, where teacher educators can showcase their skills in practical settings.

The ability of teacher educators to use their knowledge and skills in appropriate situations is ensured by authentic assessments, which is crucial to effective classroom instruction.

3. Structure and Components of the Framework

A. Assessment Domains

1.Pedagogical Competency: Performance evaluations, teaching portfolios, peer reviews, and observations.

2. Content Competency: Knowledge assessments, curriculum design assignments, and demonstrations of instruction tailored to a given subject.

3. Technology Integration Competency: lesson plans involving technology, examples of digital tools, and reflective journals on technology use.

4. Research Competency: Action research reports, research projects, and research sessions.

5. Assessment Competency: Peer assessments, analysis of student data, and assessment- designed tasks.

6. Reflective Practice and Professional Growth: Professional development data, peer and mentor remarks and self-reflection journals.

B. Assessment Methods

1. Formative Assessments: Formative evaluations promote continuous improvement and allow teacher educators to improve their strategies in response to feedback.

2. Summative Assessments: Summative evaluations ensure that teacher educators fulfill the required professional standards.

4. Implementation of the Framework

1. The framework should be adapted to consider the unique setting, curriculum, and objectives of the teacher education program.

2. The framework should be updated regularly based on input from stakeholders, such as teacher educators, aspiring educators, and educational policymakers.

3. From early professional development to later phases of career advancement, competency assessments must be an integral component incorporated into the teacher educator's career.

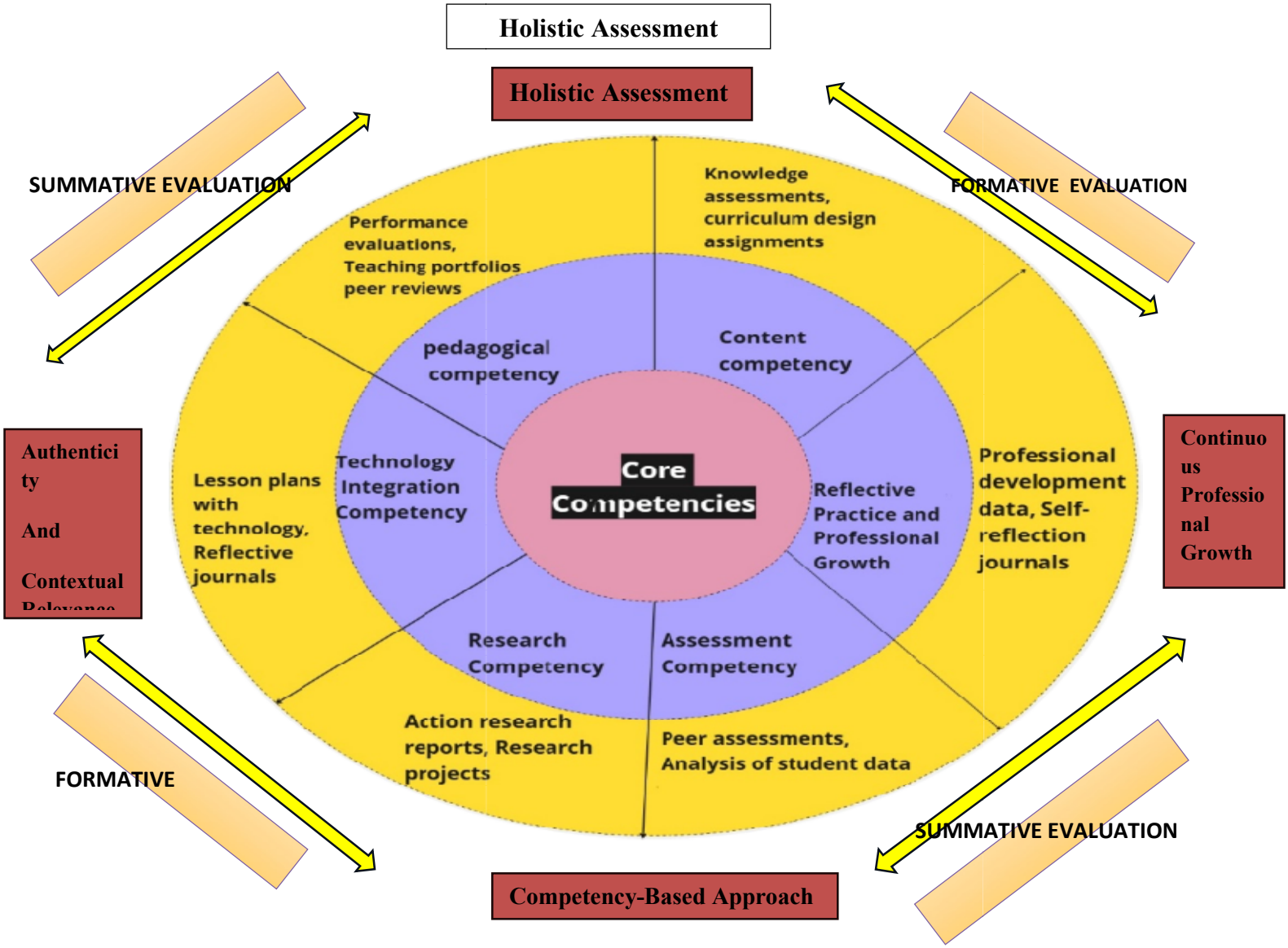

Fig 1: Framework for Professional Competency Assessment in Teacher Education

CONCLUSION

This study's conceptual framework for professional competence assessment in teacher education combines many theoretical paradigms to produce an authentic, competency-based, and comprehensive approach to assessment. This framework provides a thorough approach to assessing the multifaceted character of teacher educators' professional capacities by taking into account pedagogical, content, technology, research, assessment, and reflective competences. By combining formative and summative evaluations, teacher educators are encouraged in their continuous professional growth in addition to

being assessed at certain stages of their careers. It supports professional growth that fits along with the needs of modern education, and gives teacher educators the support they need to better train future educators. This framework is ultimately a useful tool for teacher preparation programs and policymakers as it advances the broader objective of strengthening teaching and learning outcomes in educational institutions.

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