

Teacher Education and Curriculum

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ABSTRACT

A teacher education curriculum is a structured program that guides the learning of future teachers, aiming to enhance their skills and knowledge in areas like domain knowledge, pedagogical skills, and content expertise. It's based on evidence and research, focusing on what works best for teacher candidates and the future learning outcomes of their students. Curricula often include supervised practice, such as field observations or student teaching, to bridge theory with practice.

Keywords: Curriculum, Domain, Education, Knowledge, Learning, Practice, Skill, Teacher

INTRODUCTION

Teacher educators have key roles in the educational system through preparing and implementing teacher education programs. Understanding and acquiring the necessary responsibility for these roles is crucial for their professional development. Practical experiences of teacher educators provide insights into the specific abilities required in their work context. This case study explored the actual practices, challenges, and strategies employed by 25 teacher educators as curriculum developers, based on an analysis of documents and interview data. The research framework was grounded in curriculum innovation, drawing from both literature review and practical insights. The results revealed that teacher educators were highly aware of their roles as curriculum developers, offering specific activities for syllabus development and revision, schemes of work and lesson plans, teaching practice, and assessment. However, challenges persist in terms of curriculum developers' knowledge base, timeframes, and professional development, particularly within the Indian context.

KEY AREAS OF A TEACHER EDUCATION CURRICULUM:

Domain Knowledge:

This includes foundational understanding of education, such as philosophy, history, psychology, and sociology of education.

Pedagogical Skills:

Training in effective teaching methods, classroom management, assessment techniques, and supporting diverse learners, including those with special needs or who are English language learners.

Content-Area and Methods Knowledge:

Focuses on subject-specific knowledge and skills, including how to teach and assess a particular subject.

Supervised Practice:

Provides opportunities for future teachers to apply their knowledge and skills in real classroom settings, often under the guidance of experienced teachers.

BEYOND THE BASICS

Curriculum Renewal:

Teacher education programs are constantly evolving to adapt to changing educational needs and incorporate new research and technologies.

Focus on Professional Development:

Curricula aim to equip teachers with not only content knowledge but also essential professional skills like communication, collaboration, and self-reflection, and lifelong learning skills.

Alignment with National Frameworks:

In many countries, teacher education curricula are aligned with national frameworks, such as the National Curriculum Framework for Teacher Education (NCFTE) in India.

Importance of Student Teacher Learning:

Curricula should prioritize student teacher learning and engagement, fostering a sense of agency and promoting their ongoing professional development.

Consideration of Diverse Learners:

Teacher education programs should prepare teachers to effectively address the diverse needs of learners in their classrooms.

Professionally, teacher educators overcame these challenges in various ways, most notably through autonomy in improving syllabus content and teaching flexibility, as well as through formal training and informal learning from and with their colleagues and student teachers in the workplace. The study contends that practitioners' innovation and flexibility in using and developing syllabi in practice are more robust than following prescribed curriculum frameworks and instructions. This study addresses a gap in the literature regarding the role of teacher educators in curriculum development and has implications for improving educational practice, research, and policymaking in the field.

Teacher educators and their responsibilities as curriculum developer

Teacher educators, sometimes known as second-order practitioners, are essential in aiding those aspiring to become teachers (Murray, 2002). According to Lunenberg et al. (2014), teacher educators fulfill five main responsibilities. First, they act as teachers and role models for students. Second, they engaged in research and knowledge production using their teaching practices as the subjects of investigation. Third, teacher educators function as mentors or coaches guiding and supporting the learning processes of future teachers. Fourth, teacher educators act as gatekeepers or evaluators to ensure compliance with professional standards and profiles. Fifth, teacher educators act as brokers in the learning community, facilitating collaboration between prospective teachers and school-based mentors (Lunenberg et al., 2014). Finally, "the role of curriculum developers, which involves curriculum innovation, consideration of teaching methods, and selection of appropriate learning materials," can be considered the sixth position among the professional responsibilities of teacher educators (Lunenberg et al., 2014, p. 51–55).

Melief et al. (2012) emphasized the importance of autonomy and control by recognizing the role of "educational developers" in Dutch educators' professional standards. This finding implies that teacher educators are accountable for their active participation in curriculum creation. Cochran-Smith (2003) also emphasized teachers' significant role as "key players" in various educational reforms, pushing them to participate as public intellectuals (Cochran-Smith, 2006) in discussions about national and global curricular revisions and the development of competent teachers. However, according to Lunenberg et al. (2014), Dutch teacher educators often follow rather than lead these dialogues. It remains uncertain whether teacher educators acknowledge and address the increased demands placed on educators as curriculum developers and whether they possess the competence and intention to meet these demands from a broader perspective.

Curriculum Development

In a study overseen by Grave (1996), it was asserted that language teachers assume the role of curriculum developers. The terms curriculum is distinct from syllabus even though they are often mistakenly used interchangeably. The curriculum refers to a comprehensive framework encompassing the philosophy, purpose, design, and implementation of an educational program. Conversely, a syllabus outlines and organizes the content of specific courses (Grave, 1996; Richards, 2017). Put simply, a curriculum is "what to teach," and a syllabus is "how to teach it" (Chung and Kim, 2016; Grave, 2023, p. 198).

The course introduction of a curriculum contains specific learning objectives, and the subject matter for each session can be specified. Additionally, the curricular notion extends beyond the classroom and encompasses the entire educational program, including the roles of teacher educators and student teachers' learning experiences (Lewin and Stuart, 2003). According to Deng (2018), curriculum and teaching are interconnected notions that exist within the broader settings of society, institutions, and instructional practices in schools. The concept of curriculum encompasses societal, policy, programmatic, and classroom curricula; these provide social significance, normative and operational structures, and educational excellence to the act of teaching (Deng, 2018).

Conway et al. (2009) conducted a comparative study of teacher education across several developed countries including England, Finland, Northern Ireland, Ireland, Poland, Scotland, New Zealand, Singapore, and the United States. This study emphasized several key principles that contribute to the development of a high-quality curriculum. These principles include having a shared and clear vision of what constitutes good schooling, integrating learner knowledge into the curriculum, incorporating foundational concepts, methods, and teaching practices, promoting observation-based internships, and implementing strategies to assess student performance.

From this perspective, teacher educators develop curricula following the three key components described by Lunenberg et al. (2014): curriculum innovation, implementing effective didactic principles (teaching methods), and developing appropriate learning materials.

Curriculum Innovation

Curriculum transmitters, developers, and makers are three approaches to curriculum innovation identified by teachers, particularly those in secondary schools, based on research (Shawer et al., 2009; Shawer, 2010). Curriculum transmitters implement the curriculum without making any changes or judgments concerning its shape or textbook content, instead following the textbook and teacher's pedagogic instructions (Shawer, 2017). Conversely, curriculum developers have complete "control" over the curriculum, making decisions on content, learning objectives, and support materials, including, where appropriate, the development of core materials such as teachers' guides and textbooks (Shawer et al., 2009, p. 127). Curriculum development encompasses decision-making regarding curriculum content, such as developing materials, curriculum themes, and revising textbooks (Craig, 2006). Curriculum developers are unlikely to adhere strictly to textbook pages and pedagogical guidelines provided in teachers' guides (Shawer, 2010). Curriculum makers are placed between the two categories of instructors on this continuum, and they have some autonomy over the curriculum's subject matter and presentation (Shawer et al., 2009; Shawer, 2010).

The curriculum development process begins with an assessment approach that serves as a basis for creating a curriculum (Shawer et al., 2009; Shawer, 2010). Teachers and educators make choices; they determine the curriculum for their topics and the academic level of their pupils. This is followed by the structuring and ordering of teaching strategies related to content and creating a syllabus for implementing the curriculum (Shawer et al., 2009; Shawer, 2010, 2017).

This theoretical distinction between the three roles raises several questions, including whether the models proposed by Shawer et al. (2009) encompass all possibilities or whether some instructors and educators do not fit within these descriptions. For instance, some educators may occasionally adjust their existing content but may not consider themselves strictly transmitters. The term curriculum also prompts further inquiry. As mentioned earlier, if a curriculum is understood to encompass the philosophy, objectives, design, and execution of a program, it is plausible that teachers can simultaneously transmit certain aspects of the curriculum, such as its philosophy and objectives, while also developing and shaping other elements, such as its design and implementation (Shawer et al., 2009). In essence, it is worth examining the reliability and usefulness of this model for curriculum implementation (Shawer, 2017).

Implementing effective didactic principles

Ping et al. (2018, p. 96) categorized the pedagogy of teacher education into "learning about teaching," which focuses on curriculum instruction and teaching strategies, and "teaching about teaching," which provides role models and addressees challenges through teaching practices. Korthagen et al. (2006) proposed seven key principles to guide program development and change, emphasizing the importance of learning from experience and reflection, which are now central to teachers' professional development. Among the seven principles, two highlight the importance of (1) directing focus from the curriculum to the student teachers themselves and (2) nurturing significant connections between schools, universities, and student teachers. To bridge the gap between theory and practice effectively, Korthagen et al. (2006, p. 1025) proposed the concept of "unrealistic teacher education." Central to this curriculum approach is the development of teachers as reflective practitioners with an emphasis on addressing the challenges, needs, and actions of students. This study emphasizes that teacher educators, in their roles as curriculum developers, should have a well-defined understanding of pertinent knowledge, effective professional development, and meaningful connections between schools, universities, and student teachers. Teacher educators must exemplify the teaching and learning methods advocated in teacher-education programs.

Developing appropriate learning materials

The third curriculum element (Lunenberg et al., 2014) comprises a diverse range of learning resources, including written materials such as textbooks, syllabi, and teacher manuals. Many of these are physical objects such as textbooks, lesson plans, teaching guides, handouts, and lecture notes (Kristanto et al., 2017). Kristanto et al. (2017) also reported that the importance of support materials for the implementation of a curriculum cannot be overstated. In countries or situations where teacher education is limited, or education is delivered based on a strongly centralized mandate, the textbook can become the de facto curriculum, superseding other documents (Shawer, 2010). In the context of curriculum development, for materials to be valued, they have to be fully aligned with the curriculum (Miguel, 2015; Soto, 2015). Bouckaert and Kools (2017), 3 years after Lunenberg et al.'s (2014) on the curriculum development, re-enforced Lunenberg et al.'s (2014) theory of curriculum development. They highlighted the key findings regarding the perceptions and practices of 75 teacher educators who identified themselves as curriculum developers adhering to the following the five practices:

- Developing professional vision of their responsibility toward the curriculum
- Focusing on pedagogic principles,
- Striving to create consistency and coherence within the curriculum,
- Applying curriculum innovation by incorporating the latest theoretical and practical insights, and
- Being actively involved in material development.

Professional development and learning of teacher educators as curriculum developers

Several studies have examined the professional development of teacher educators, focusing on the significance of their concerns, activities, and environment (Van der Klink et al., 2017). Workplace learning has been studied considerably in recent years (Tynjälä, 2008; Billett, 2020), which may be attributable to the recognition that people acquire much of their professional competence in practice and continue learning through their professional activities (Ping et al., 2018). According to Bouckaert and Kools (2017), teacher educators engage in professional preparation regarding curriculum development through informal learning with their colleagues in the role of curriculum developers.

As noted, teacher educators' opportunities for continuous professional development (CPD) may be improved when they intentionally participate in such learning activities. Attending seminars, workshops, and other formal learning activities outside the institution has been argued to be less effective than adopting a more systematic, integrated, and context-based approach toward CPD (Smith, 2003; Srinivasacharlu, 2019).

Implementation of the TEC curriculum and syllabus necessitates close cooperation between universities and schools (as with Korthagen et al., 2006). If teacher educators do not have knowledge of the curriculum, they cannot fully apply their experience to improve the syllabi and their teaching skills.

All Teacher educators reported that they received support from MoEYS and local and international development partners on many topics related to their specialized subjects, teaching methodologies, and teacher education programs. It cannot be expected that participants will have existing knowledge and skills to update syllabi and content, as these are new requirements in India. According to Shulman and Shulman (2004), skill growth in developing and adjusting a curriculum or syllabus evolves gradually over time. Considering the limited diversity of experiences in syllabi and the challenging obligation to evaluate, improve, or create new syllabi after participating in workshops, participants initially proceeded with syllabus revision based on their personal experience.

To ensure that students' requirements are satisfied through suitable instructional strategies, training and professional development must focus on teaching students how to understand the curriculum effectively (Jess et al., 2016). Traditionally, teacher education preparation programs at all levels were under MoEYS, such as the curriculum framework for B.A.Ed., syllabi, and teacher guided books. In Provincial Teacher Training Centers, Regional Teacher Training Centers, all teacher educators are curriculum implementers (see example of No, 2015). After pre-service teacher education reform (2014–2018 and 2019–2023) by Ministry of Education Youth and Sport (2013, 2019), TECs are teaching university-based pedagogy in teacher education. In terms of the quality of the curriculum, MoEYS transfers the authority of curriculum development to TECs through directors who have ownership of developing syllabi, content of specialized subjects, and curriculum study (teaching methodologies) by teacher educators but under the curriculum framework. Thus, teacher education colleges still need more expertise and specialized teacher educators to educate future student teachers to become fully competent teachers and to improve teacher education programs (Pich, 2017; Sot et al., 2019; Em et al., 2022). Moreover, the teacher educators are a professional group that can provide a clear vision, the right expertise, and responsibility and contribute to improving teacher quality and teacher education in India (Sok and Heng, 2024).

Collegial interaction and learning by doing (e.g., developing and playing with materials) were the most chosen options for Continuous Professional Development (CPD) (Ping et al., 2018). These important components are correlated with recent studies on the professional development of Dutch teacher educators (Dengerink et al., 2015; Bouckaert and Kools, 2017). In other words, there is a greater justification for activities that are systematically incorporated and connected to informal workplace learning (Smith, 2003; Tynjälä, 2008; Billett, 2020), and curriculum development in teams of educators could be one of them. This could present opportunities for educators to use “their own learning as a source of knowledge to benefit the learning of others” in their classes with student teachers (Cochran-Smith, 2006, p. 220).

This study found that teacher educators in India typically play the role of curriculum developers primarily as syllabus developers, following prescriptions from the top-down curriculum development approach (the curriculum framework from the directors of TECs). Teacher educators generally accept the curriculum as a set of rules that has been obeyed and followed as a prescription. In contrast to Miguel (2015) and Kristanto et al. (2017), teacher educators at TECs have ownership and autonomy of syllabi, coursebooks, lesson plans, and teaching materials to align with the national curricula. In pre-service teacher education reform, India is in the early stages of allowing teacher educators to enjoy greater degrees of autonomy.

Teacher educators strive to understand and conduct critical inquiries to absorb syllabi content and present it uniquely, depending on the established goals within the curriculum framework. Consequently, they adopt personal responsibility and initiative to overcome various obstacles found in the curriculum while facing pressure from senior officials to follow the correct protocols.

Finally, course book guidelines are often not strictly adhered to by curriculum developers, who commonly incorporate additional materials to modify the curriculum for specific circumstances.

In summary, teacher educators play a crucial role as both curriculum developers and implementers, making substantial contributions to the quality of teacher education programs in India's TECs and other educational institutions. While the quality of teacher educators and teacher education programs is paramount for contributing to the quality of teacher education, it is important to focus on the professional development of teacher education and revamp the novice curriculum and syllabi of teacher education colleges in India.

The empirical practice and autonomy of teacher educators in curriculum development serve as valuable evidence for MoEYS to consider and support. Furthermore, this study adds to the existing literature on teacher education in developing countries, highlighting its significance.

Implications

Teacher educators in India play vital roles as curriculum developers and implementers at TECs. They integrate pedagogical approaches and content knowledge, emphasize practical experiences, and continuously evaluate and improve the curriculum. By fulfilling their roles effectively, teacher educators can contribute to the development of a competent and well-prepared teaching workforce capable of addressing the educational challenges and needs of teacher educators at TECs and other teacher-training institutions in India.

This study aimed to investigate teacher educators' actual practices, obstacles, and strategies as curriculum developers. The significance of this study lies in highlighting practitioners' innovation and flexibility in using and developing syllabi in practice rather than following the prescribed curriculum framework and instruction. This shift may be attributed to recent explicit consideration of this function by institutions, as evidenced by internal policy documents, the national knowledge base for teacher education, and the development of Professional Standards for Teacher Educator (PSTE) (Melief et al., 2012; Ministry of Education Youth and Sport, 2022) that focus on teacher educators' roles in program and curriculum development.

Furthermore, this study addresses a perceived gap in the literature and policy regarding the role of curriculum developers. Conducting an empirically supported examination of the teacher educator's role as a curriculum developer, this study aims to fill this gap. It focuses on how teacher educators defined their roles in practice, recognizing that the interpretations and responsibilities may vary due to the novelty of this professional role. The insights derived from the current findings can benefit their practice by providing a deeper understanding of how teacher educators can effectively fulfill their roles as curriculum developers.

Teacher educators and colleagues from other institutions in India can improve their curriculum development processes and implement more effective teaching and learning practices by clarifying their roles and responsibilities in this capacity. Ultimately, the findings may result in enhanced educational practices and better support for student teachers, consequently improving the country's overall educational quality. The implications of the study for policymakers emphasize understanding curriculum development practices can inform decision-making and reforms in teacher education.

In terms of team-based curriculum development, teacher educators address the challenges in their roles as curriculum developers and implementers by engaging in informal learning through reflection and interaction with student teachers and peers, and participation in training workshops. They prioritize continuous professional learning through practical experience and collaborating with colleagues. However, there is a need to support teacher educators in developing their knowledge not only as curriculum developers but also in other aspects of their roles.

CONCLUSION

Although the present study reveals important findings, it has some limitations. Firstly, as the use of semi-structured interviews and documentaries indicates that the findings may not be generalizable to other contexts. Future studies should triangulate these findings to confirm and extend our conclusions. Second, while thematic analysis is versatile and applicable in this study, it has limitations such as a lack of exploration of hidden steps and issues in the research process, necessitating a systematic approach for more rigorous results.

Despite these limitations, this study contributes to the filling a crucial literature gap and facilitates practical engagement between curriculum frameworks, development, and implementation by highlighting the experiences of teacher educators in interpreting these frameworks to achieve the vision and mission of TECs and enhance the preparation of novice teachers (Ministry of Education Youth and Sport, 2017b). This study also enhances teacher educators' understanding of values and autonomy in public discussions on teacher education curricula and programs. Further research should investigate the influence of teacher educators' professional roles as researchers and curriculum developers on the improvement of teacher education programs.

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