

RESEARCH-BASED ARTICLES

Bridging Certification Gaps Through Online and Hybrid Pathways: Voices of Uncertified Early Childhood Educators About Certification

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Early childhood education (ECE) teachers in low socioeconomic communities often lack access to certification training, limiting program quality and student outcomes. This qualitative narrative inquiry explored ECE teachers' perceptions of certification training through the stories of seven uncertified teachers in the Lower Rio Grande Valley, Texas. Findings reveal barriers including family responsibilities, time constraints, and limited awareness of certification pathways. Participants' narratives illuminate how interactions with both online and traditional learning methods shape their perceptions of accessibility, relevance, and support within certification and degree programs. These insights highlight the importance of faculty responsiveness, instructional modality, and mentoring practices in influencing teachers' engagement with higher education. Despite persistent challenges, teachers expressed confidence in their teaching abilities and recognized the potential value of certification. Implications include the need for targeted grants, institutional support, and intentional outreach particularly through flexible, online, and hybrid training and graduate programs made accessible to expand the certified workforce. This study contributes to the literature by centering the voices of uncertified teachers and highlighting strategies to address certification gaps while informing higher education faculty practices across online and traditional contexts.

Early childhood education (ECE) is widely recognized as a cornerstone of child development, particularly for children from low socioeconomic backgrounds. Research consistently demonstrates that high-quality ECE programs improve kindergarten readiness, academic achievement, and long-term well-being (Allee et al., 2022; UNICEF, 2019). Yet disparities in teacher qualifications persist across the United States, with uncertified teachers disproportionately serving children in low-income communities (McLean et al., 2021). This study explored uncertified teachers' perceptions of certification training in the Lower Rio Grande Valley in Texas, where inequities in access to qualified and/or certified early childhood educators remain pronounced. By exploring teachers' narratives, the study provides insights into barriers, motivations, and implications for workforce development.

Importantly, these findings offer implications for both online and traditional higher education faculty by demonstrating how program design, instructional modality, faculty support, and mentoring practices can better equip uncertified ECE teachers to successfully navigate certification and degree pathways in practical ways. In doing so, the study contributes to workforce development efforts aimed at expanding equitable quality access to certification attainments and strengthening instructional quality in underserved communities.

Theoretical Framework

Brain development from birth to age five is rapid, with a child's brain reaching approximately 90% of full development by age five (Morgan, 2019). Cognitive growth is influenced not only by heredity but also by social interactions and environmental stimulation (Sidik, 2020). The theoretical frameworks of Lev Vygotsky and Jean Piaget on cognitive development were used for this study. Both theorists highlighted the importance of child-centered learning and specialized education for fostering cognitive skills that influence long-term academic success (Shah, 2020). Vygotsky's social constructivist theory emphasizes that children actively engage in learning through interactions within their social context, which includes culture, language, and the zone of proximal development (ZPD). The ZPD represents the gap between what a child can achieve independently and what they can accomplish with guidance from adults or peers (Huang, 2021; Shah, 2020). Vygotsky introduced *scaffolding*, the support provided through culture, language, and guided learning to help children develop new skills.

Piaget's constructivist theory asserts that children progress through four developmental stages: sensorimotor (birth to two years), preoperational (two to seven years), concrete operational (seven to 11 years), and formal operational (11 years to adulthood), each requiring tailored stimulation to advance (Huang, 2021; Sidik, 2020). He also described two processes for independent learning: schema, existing knowledge children bring, and accommodation, the adjustment of schema in response to new experiences. Through accommodations, children expand or refine their knowledge, supporting cognitive growth (Babakr et al., 2019; Sanghvi, 2020; Sidik, 2020).

Literature Review: The Importance of Early Childhood Certification and Teacher Preparation

Certification ensures teachers possess specialized knowledge in child development, pedagogy, and classroom management. Credential training integrates mentorship, coaching, and applied practice, which are essential for improving instructional quality (Bayly et al., 2021; Hyseni Duraku et al., 2022). Quality ECE is characterized by both structural and process elements. Structural components, such as teacher-to-child ratios, staff qualifications, and learning environments, are measurable and provide foundational support for effective teaching. Process elements, including teacher-child interactions, engagement, and use of developmentally appropriate resources, are more

nuanced but equally essential for child outcomes (Bayly et al., 2021; Bendini & Devercelli, 2022; Chappell & Szente, 2019). Teacher qualifications are critical; research shows that formally trained, certified teachers, such as those holding a Child Development Associate (CDA) credential or Certified Childcare Professional (CCP) certification, significantly enhance classroom practices and child learning outcomes (Council for Professional Recognition, 2023; National Early Childhood Program Accreditation, 2019).

Training and professional development for ECE teachers can be formal or informal. Informal training such as online tutorials, workshops, or short courses offers flexibility, low cost, and immediate applicability but may lack depth and research validation (Gemignani et al., 2022; Schachter et al., 2019). Formal professional training conducted by online or traditional graduate faculty may involve structured coursework, observation, coaching, that provide comprehensive knowledge of child development and evidence-based teaching strategies; this equips teachers with vital teaching knowledge while providing varied modes for teachers to more easily attain their certification or specialized credential (Cramer & Cappella, 2019; Herman et al., 2025; Manning et al., 2019). Research demonstrates that formal, intensive training improves teacher competence, confidence, and classroom interactions, leading to improved child developmental outcomes (Crawford et al., 2022; Rojas et al., 2020).

Online graduate faculty are uniquely positioned to design high-quality learning experiences for teachers seeking certification or specialized credentials. By offering formal instruction in online or hybrid formats, they provide flexible, accessible pathways that allow teachers to learn at their own pace and on their own schedules. Online graduate faculty can integrate a range of instructional supports, including virtual tutoring, interactive modules that scaffold learning, downloadable resources and templates for use during and after coursework, demonstration videos, and AI-enabled multilingual modules to ensure broader accessibility (Badanbekkyzy et al., 2025). In addition to increasing access, online graduate faculty play a critical role in elevating the overall quality of online graduate-level instruction. Graduate faculty bring deep expertise in developmental theory, instructional design, and digital pedagogy, enabling them to craft interactive and developmentally appropriate online lessons that strengthen teachers' professional learning experiences (Herman et al., 2025).

While research consistently demonstrates the instructional benefits of teacher preparation formally and informally, country contexts reveal persistent gaps in access to qualified educators across early childhood sector. Internationally, countries such as Ghana, Serbia, and Colombia have expanded preprimary access, yet over 350 million children worldwide still lack quality ECE (Devercelli & Beaton-Day, 2020). Seminal studies like the Perry Preschool Project and Abecedarian Project demonstrate long-term benefits of high-quality ECE, underscoring the role of qualified teachers (Barnett & Jung, 2021). In the United States, teacher qualification standards vary widely

by state. Alabama meets national benchmarks, while Texas lags behind, particularly in assistant teacher qualifications (Friedman-Krauss et al., 2024). These disparities highlight the urgent need for standardized, more accessible certification pathways for teachers to obtain the training they need for quality teaching and learning.

In response to the lack of qualified ECE educators, there is a growing emphasis on professional certification pathways in ECE; an example of a flexible and accommodating credential is the Child Development Associate (CDA). The CDA is a nationally recognized entry-level credential across all U.S. states, offered in multiple languages, and training is available online or in a hybrid setting (Council for Professional Recognition, n.d.). According to NIEER, the CDA is being rapidly adopted as the national credential, as stated in the State of Pre-School Report (Friedman-Krauss et al., 2024). The findings suggest that online and hybrid graduate faculty play a critical role in designing, delivering, and sustaining high-quality professional certificate programs that align with workforce and policy demands. As more states lean toward competency-based professional certification, the preparation and engagement of graduate-level faculty in online and hybrid environments becomes increasingly essential. Many higher education institutions now offer fully online CDA training, making it more accessible for teachers. To further reduce barriers, these institutions often use open enrollment instead of fixed semester start dates, allowing more flexibility for students (Hagerstown Community College, n.d.).

Study Procedures

Research commenced following authorization from the center director at an ECE center located in the Lower Rio Grande Valley, Texas. Once IRB and site permission were granted, participant recruitment began. Seven full-time, uncertified early childhood teachers currently employed at the center, serving children from birth to five years old, were invited to participate in the study. Pseudonyms were assigned to participants to protect confidentiality.

Two narrative interviews were conducted with each participant in an effort to ensure rigor. Interviews were conducted face-to-face with each of the participants. Follow-up interviews were conducted to clarify and expand upon participants' narratives. Data analysis was conducted using Braun and Clarke's six-phases of reflexive thematic analysis (Braun & Clarke, 2021). Coding consisted of the use of manual coding as well as Computer Assisted Qualitative Data Analysis Software (CAQDAS), which was NVivo Pro.

Results

Approximately 100 initial codes were generated, which were subsequently refined, merged, or eliminated, resulting in 74 final codes. Through this analytical process, codes converged into 10 overarching themes that offered insight into the factors contributing to the shortage of certified early childhood educators in the Lower Rio Grande Valley. [Table 1](#) presents the 10 themes that surfaced in alignment with the three research questions.

Table 1. Research Questions, Themes, and Participants Transcript Alignment

Research questions	Themes	Frequency	Participants
RQ1: What perceptions do uncertified early childhood education teachers have toward certification training?	Theme 1: Uncertified ECE teachers have barriers towards earning ECE certification.	7/7	1, 2, 3, 4, 5, 6, 7
	Theme 2: Uncertified ECE teachers have supports toward earning ECE certification.	7/7	1, 2, 3, 4, 5, 6, 7
	Theme 3: Uncertified ECE teachers perceive ECE certification as valuable.	6/7	1, 3, 4, 5, 6, 7
	Theme 4: Uncertified ECE teachers lack general knowledge of ECE certification, as well as ECE certification options.	7/7	1, 2, 3, 4, 5, 6, 7
RQ2: What are uncertified teachers' perceptions regarding the degree to which early childhood education certification would or would not add to their knowledge and skills?	Theme 5: Uncertified ECE teachers acknowledge that obtaining an ECE certification could benefit them generally.	6/7	1, 3, 4, 5, 6, 7
	Theme 6: Uncertified ECE teachers struggled to identify how certifications would enhance their knowledge or skills.	5/7	1, 3, 4, 5, 6
RQ3: How do uncertified teachers perceive their current ability to teach children effectively?	Theme 7: Uncertified ECE teachers display confidence in their teaching skills and classroom management	7/7	1, 2, 3, 4, 5, 6, 7
	Theme 8: Uncertified ECE teachers display passion and motivation towards teaching	7/7	1, 2, 3, 4, 5, 6, 7
	Theme 9: Uncertified ECE teachers highly value curriculum, routine, structure, process, and teacher supports.	7/7	1, 2, 3, 4, 5, 6, 7
	Theme 10: Uncertified ECE teachers view caring for children as their first priority.	7/7	1, 2, 3, 4, 5, 6, 7

Discussion

The findings from the 10 themes reveal a paradox: uncertified ECE teachers are confident in their abilities yet acknowledge the potential benefits of certification. Barriers such as family responsibilities and time constraints hinder participation, while limited awareness of certification pathways intensifies the issue.

Theme 1: Uncertified ECE Teachers Have Barriers Towards Earning ECE Certification

Most participants (five of seven) identified family responsibilities as a central barrier to pursuing certification. Participants described difficulty balancing coursework with childcare and household duties. Several participants noted that the strain of balancing these responsibilities contributed to stress and uncertainty about their ability to complete the certification process.

Theme 2: Uncertified ECE Teachers Have Supports Toward Earning ECE Certification

Six of seven participants emphasized that formal training would enhance their teaching effectiveness and classroom practices. Responses suggest that uncertified teachers perceive training not merely as a requirement but as an avenue for professional enrichment and improved instructional quality. Participants also expressed strong intrinsic motivation to enhance their teaching practice and pursue certification. Overall, participants demonstrated both external and internal readiness to pursue certification if given access to training opportunities and institutional support.

Theme 3: Uncertified ECE Teachers Perceive ECE Certification as Valuable

Six of the seven participants expressed clear recognition of the value of ECE certification. Their perspectives reflected an understanding that certification holds benefits for teachers' professional development, classroom quality, and the broader community of parents and children.

Theme 4: Uncertified ECE Teachers Lack General Knowledge of ECE Certification, as Well as ECE Certification Options

While participants recognized the value of certification, all seven demonstrated limited understanding of what ECE certification entails, and five could not identify a specific certification option. Most participants associated certification with academic workload rather than professional skill development.

Theme 5: Uncertified ECE Teachers Acknowledge Obtaining an ECE Certification Could Benefit Them Generally

Collectively, participants recognized that certification represents more than a credential; it embodies a form of professional legitimacy and self-improvement, reinforcing their dedication to growth in ECE. Several participants also expressed that earning certification could open pathways to increased compensation, leadership opportunities, and long-term career stability within the field.

Theme 6: Uncertified ECE Teachers Struggled to Identify How Certification Would Enhance Their Knowledge or Skills

Despite recognizing its general benefits, five of the seven participants found it challenging to articulate *how* certification might enhance their instructional knowledge or specific teaching skills. Their responses were often vague or hypothetical, suggesting limited awareness of the pedagogical or developmental competencies embedded within certification programs. This theme reflects a notable disconnect between teachers' perceived value of certification and their understanding of its content or practical application.

The findings suggest that limited exposure to formal training programs may contribute to uncertainty about how certification translates into improved classroom practice.

Theme 7: Uncertified ECE Teachers Display Confidence in Their Teaching Skills and Classroom Management

All seven participants conveyed confidence in their teaching abilities and classroom management. Teachers described their perceived impact on children's learning, interactions, and setting expectations. They also emphasized their ability to create structured, engaging, and developmentally appropriate learning environments, demonstrating a strong sense of professional competence despite lacking formal certification.

Theme 8: Uncertified ECE Teachers Display Passion and Motivation Towards Teaching

All participants expressed strong passion and motivation for teaching, often describing it as a calling or personal fulfillment. Indicating this intrinsic motivation drives their commitment to student growth and learning, suggesting that these teachers are highly invested in professional development and would likely embrace certification as a way to formalize and enhance their practice.

Theme 9: Uncertified ECE Teachers Highly Value Curriculum and Routine

All participants highlighted the importance of curriculum, routine, structured processes, and support from colleagues as central to their effectiveness. They emphasized that consistent routines and well-designed curricula not only support children's learning but also enhance teacher confidence and classroom stability, indicating readiness to engage with formal standards and practices associated with certification.

Theme 10: Uncertified ECE Teachers View Caring for Children as Their First Priority

All participants consistently identified childcare as their top priority, encompassing safety, emotional support, and responsibility. They had a focus on the children's well-being, which underscored their professional dedication, and they felt that formal credentialing would recognize and reinforce their commitment.

Implications

The findings of this study have several implications for ECE practice, professional development, and policy. First, the demonstrated confidence, passion, and commitment of uncertified ECE teachers indicate that these educators possess intrinsic motivation and practical expertise that can be leveraged to enhance program quality. Their ability to manage classrooms,

establish structured routines, and foster positive interactions with children suggests that uncertified teachers contribute meaningfully to child development, even in the absence of formal certification.

Second, the expressed value of curriculum, structured processes, and collegial support underscores the importance of organizational infrastructure in promoting teacher effectiveness. Early Childhood Centers that provide clear routines, accessible curriculum resources, and opportunities for mentorship or collaboration can help bridge gaps for uncertified teachers and support their professional growth. Professional development initiatives should build upon these structures, offering training that aligns with teachers' practical experiences and classroom realities.

Third, although teachers recognize the potential benefits of ECE certification for their knowledge, skills, and career trajectories, barriers such as family responsibilities, time constraints, and limited awareness of certification pathways inhibit pursuit of formal credentials. These findings highlight the need for more accessible, flexible, and well-communicated early childhood certification opportunities that accommodate the personal and professional demands of working teachers. Modular training, online components, and integrated supports for balancing family and work responsibilities may increase participation in certification programs.

Finally, teachers' consistent prioritization of child safety, emotional support, and overall well-being reinforces child-centered practices in ECE. Policies and professional development initiatives should reflect these priorities, recognizing that educators' dedication to children's holistic development is foundational to program quality. Aligning certification and training with practical, child-focused applications may increase perceived relevance and motivation for participation among uncertified ECE teachers.

Taken together, these findings suggest that supporting uncertified ECE teachers through targeted professional development, flexible certification pathways, and ongoing mentorship can strengthen teacher capacity and program quality. By addressing structural barriers while building on teachers' existing skills and motivations, the field can enhance teacher preparedness, promote professional growth, and ultimately improve outcomes for young children.

To address these challenges, online and hybrid professional certificate programs through online-graduate-led training can offer an effective route toward ECE certification for employed teachers. These programs deliver organized, competency-based courses that meet certification standards, while also providing flexibility for those with family or work obligations. When structured as stackable or connected credentials, these certificates can help uncertified teachers progress smoothly into formal ECE certification or degree pathways. Including mentorship, coaching, hands-on coursework, and child-focused practices within these formats makes them even more relevant and supportive, encouraging ECE educators to persist and complete their training.

Recommendations

The findings of this study yield several recommendations for both practice and future research in ECE. From a practice perspective, programs should recognize and build upon the intrinsic motivation and practical expertise of uncertified teachers. Professional development initiatives that emphasize classroom management, structured routines, and child-centered practices can enhance teacher effectiveness while reinforcing educators' commitment to children's emotional safety and holistic development. Flexible certification pathways, such as hybrid or totally online certification courses, are recommended to reduce barriers related to family responsibilities and time constraints, thereby increasing accessibility and participation. To improve teacher effectiveness, programs should provide mentorship, coaching, collaboration, and online resources. Competency-based training or courses designed and led by graduate faculty, delivered online or in a hybrid setting, can provide ECE teachers with high-quality, flexible, and accessible options to work toward certification.

Further studies are needed to examine or explore the long-term impact of uncertified teachers on child outcomes, as well as the effectiveness of flexible online certification models in promoting professional growth. Future research should also explore how organizational infrastructure, including mentorship and collaborative practices, influences teacher retention and development. Comparative studies across diverse program settings may provide insight into how contextual factors shape the experiences of uncertified early childhood teachers and their pursuit of certification. Finally, research that integrates teachers' perspectives on balancing professional responsibilities with family demands can inform the design of more responsive and equitable certification policies and instructional platforms.

Taken together, these recommendations underscore the importance of supporting uncertified teachers through targeted professional development, accessible certification opportunities, and organizational structures that foster collaboration. At the same time, ongoing research is essential to evaluate the effectiveness of these strategies and to ensure that policies and practices remain aligned with the central goal of promoting positive outcomes for young children in ECE Centers.

Conclusion

This study explored the perceptions of uncertified ECE teachers toward specialized certification in the Lower Rio Grande Valley, Texas. Findings revealed that while teachers demonstrated confidence, passion, and commitment to child-centered practices, they faced barriers to certification, including family responsibilities, demanding schedules, and limited awareness of pathways. Participants valued structured curriculum, peer support, and professional development, while intrinsic motivation and dedication to children's well-being emerged as strong drivers for considering formal training. These results underscore the need for certification models that

accommodate the realities of working teachers. Flexible and alternative formats, such as online courses and hybrid programs, can reduce barriers and increase accessibility. By addressing structural challenges while leveraging teachers' existing expertise and motivation, policymakers, higher education graduate-level online courses, and ECE leaders can promote certification attainment, strengthen teacher preparedness, and enhance program quality, ultimately improving outcomes for children in both underserved and served communities.

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