
THEMATIC EXPLORATION OF ETHICS EDUCATION FOR PRE-SERVICE TEACHERS: AN EDUCATIONAL DESIGN RESEARCH APPROACH

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KEY WORDS	ABSTRACT
Ethics Education, Pre-service Teachers, Virtue Ethics, Educational Design Research, Reflective Practice.	Ethics education is a critical yet often underdeveloped component of pre-service teacher preparation in India, where, diverse cultural and social contexts shape teachers' moral responsibilities. This paper explores how ethics learning for pre-service teachers can be strengthened through an Educational Design Research (EDR) approach. Integrating insights from virtue ethics, worldview diversity, the Bildung tradition, and reflective-didactic pedagogy, the study proposes a theoretically grounded foundation for designing effective ethics-learning interventions. EDR enables iterative cycles of design, enactment, analysis, and refinement, ensuring that theoretical ideas translate into meaningful learning experiences. The proposed design supports the development of ethical awareness, virtue-based reasoning, reflective judgment, and professional responsibility. The paper argues that intentional, structured pedagogical interventions foster deeper ethical self-development than traditional content-driven instruction. By presenting a contextually relevant model for ethics education, the study contributes to strengthening teacher preparation and promoting morally grounded, socially responsive educators.

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Introduction:

Ethics education has long been regarded as an essential component of professional preparation, yet its presence within teacher education remains fragmented and inconsistent, particularly in the Indian context. Although pre-service teachers are expected to uphold professional integrity, demonstrate moral sensitivity, and model ethical behaviour in their future classrooms, ethics is often taught as a peripheral topic, sometimes as a brief module or embedded implicitly within broader courses. Such piecemeal exposure may promote superficial understanding, but it rarely supports the deeper ethical reasoning, reflective capacity, and value-based decision-making that the teaching profession demands. This gap mirrors global observations that ethics taught as isolated content tends to result in surface-level learning rather than meaningful development (Campbell, 2008; Tirri & Kuusisto, 2022). When ethical formation does not occur meaningfully, pre-service teachers may enter professional practice without the dispositions necessary to navigate real-world dilemmas or uphold equitable and responsible educational practices. A more sustained, holistic, and theoretically grounded approach to ethics education is therefore needed within pre-service teacher preparation. Insights from virtue ethics provide one meaningful direction: virtues such as justice, empathy, honesty, fairness, and practical wisdom are shared across philosophical and cultural worldviews, making them highly relevant for India's culturally diverse teacher-education landscape (Grande et al., 2024). These virtue-based perspectives suggest that ethical development is not merely a cognitive process but a gradual shaping of character, habits, and moral sensitivity outcomes that require intentional pedagogical design. Similarly, the pedagogical tradition of *Bildung* emphasises the educator's role in creating spaces that support the self-development of learners, enabling

them to cultivate internal motivation (“thrill”) and personal responsibility qualities vital for ethical teaching practice(Carr, 2006). Yet simply drawing on virtues or moral theory is insufficient without pedagogical structures that help pre-service teachers connect ethics to lived decision-making. Research in teacher education highlights the importance of active participation, critical reflection, collaborative dialogue, and transformative learning as essential pedagogical processes for shaping ethical awareness(Smit et al., 2024). These processes resonate with the Theory of Planned Behaviour (Bosnjak et al., 2020). which suggests that ethical intention and action are shaped by personal attitudes, social norms, and perceived behavioural control. When combined, these perspectives highlight the need for carefully designed learning environments that engage pre-service teachers on cognitive, emotional, and experiential levels. Educational Design Research (EDR) offers a systematic and practice-oriented methodology for developing such environments. EDR allows researchers and educators to design, implement, and refine ethics-learning interventions through iterative cycles of theory-informed practice(McKenney & Reeves, 2021). By grounding ethics education within an EDR framework, teacher education programs can move beyond fragmented curricular add-ons and toward structured, evidence-based interventions that meaningfully support the ethical formation of pre-service teachers. This thematic exploration responds to the growing recognition that preparing ethically responsible teachers is a societal necessity, especially in rapidly evolving educational contexts such as India, where teachers often navigate complex cultural, social, and technological challenges. The present paper, therefore, examines ethics education for pre-service teachers through the lens of Educational Design Research. Drawing on virtue ethics, *Bildung*, didactic interventions, and reflective practice models, it outlines an interconnected theoretical and

practical foundation for designing ethics-education interventions suited to teacher-training institutions. By doing so, the paper aims to contribute to ongoing efforts to strengthen ethics as a core element of teacher preparation and promote education that genuinely supports the development of future teachers as morally grounded, responsible, and socially responsive professionals.

2. Educational Design Research – Significance

Educational Design Research (EDR) offers a meaningful framework for strengthening ethics education within pre-service teacher preparation. In contrast to traditional research approaches that separate theory from practice, EDR integrates both through iterative cycles of designing, implementing, analysing, and refining interventions(Lehtonen, 2021). This approach is particularly relevant for ethics education, where learning outcomes such as moral sensitivity, professional integrity, and virtue-based decision-making cannot be achieved through lecture-based instruction alone. Instead, they require thoughtfully structured learning experiences that evolve through continuous reflection and contextual understanding(Karakuş et al., 2025). EDR emphasises collaborative inquiry between researchers and practitioners, enabling them to co-create interventions that respond to the everyday realities of teacher education classrooms. This is crucial because ethical learning is deeply situated in context, shaped by cultural norms, institutional expectations, and the lived experiences of pre-service teachers(Dunn et al., 2019) When ethics is presented superficially or without meaningful connection to practice, learners may exhibit short-term awareness but fail to internalise the dispositions and virtues needed for long-term professional conduct(Hansen et al., 2024). By contrast, EDR encourages educators to design interventions that intentionally target deep learning and sustained

behavioural change. Another strength of EDR lies in its capacity to support holistic development. Ethics learning involves cognitive understanding, emotional engagement, and reflective interpretation of complex dilemmas. A design-based approach allows interventions to address these dimensions simultaneously. (Evangelou & Xenos, 2025) For example, iterative cycles can test whether pre-service teachers respond more deeply to virtue-based case studies, collaborative reflection circles, or values-based microteaching scenarios. Each cycle contributes to refining the pedagogic design, ensuring that the intervention does not merely transmit information but fosters moral growth and self-awareness. Furthermore, EDR aligns with the growing need to integrate theory and practice in teacher education. Ethics education must draw upon philosophical traditions, such as virtue ethics, and educational traditions, such as *Bildung*, while simultaneously responding to the contemporary demands placed on teachers in India such as navigating diversity, addressing inequities, and upholding professional responsibilities. Through design-based research, theoretical frameworks can be practically interpreted, tested, and enhanced within authentic teacher-education environments(Kopcha et al., 2015). Thus, the significance of Educational Design Research for ethics education lies in its ability to generate contextually relevant, theoretically grounded, and continuously improved interventions. For pre-service teachers, such an approach offers not only knowledge about ethical principles but opportunities to cultivate the moral dispositions, reflective habits, and ethical judgement critical to responsible teaching. In this way, EDR becomes a bridge between ethical theory, pedagogical design, and the professional formation of future educators(Wiese et al., 2025).

2.1 Central Focus and Research Question

The ethical formation of pre-service teachers has become an increasingly

critical concern within contemporary teacher education, particularly in contexts where classrooms are characterised by cultural diversity, social inequality, and rapidly shifting professional demands(Feng et al., 2025). In India, ethics is often presented implicitly or briefly in professional studies, leaving many teacher trainees without structured opportunities to explore moral dilemmas or cultivate ethical judgement(Campbell, 2008). This gap highlights the need for research that focuses on designing meaningful and contextually responsive learning experiences to strengthen pre-service teachers' ethical capacities(Carrington & Saggars, 2008). The central focus of this research is therefore the design of pedagogical environments that intentionally cultivate ethical awareness, virtue-based reasoning, and professional responsibility among pre-service teachers(Hogan, 2014). Ethics is not merely a cognitive domain; it is a dynamic and experiential aspect of teacher identity that develops through guided reflection, active engagement with dilemmas, and sustained personal introspection(Crigger & Godfrey, 2014). Consequently, research must move beyond content-based approaches to examine how carefully structured educational designs can support ethical self-development. Educational Design Research (EDR) provides a methodological orientation for this inquiry. Its iterative cycles encourage the development and refinement of learning interventions that connect theoretical insights with lived classroom realities(University of Wollongong & Wotring, 2025). By approaching ethics education through EDR, this study seeks to identify design principles that enhance pre-service teachers' ability to interpret ethical situations, recognise moral dimensions in teaching practice, and act with integrity and professional judgement(Nadlir et al., 2025). The starting point for this research is the need to establish a clear understanding of how ethics can be supported meaningfully within teacher-education programmes. Rather than treating ethics as an abstract

topic, this study views ethical formation as an ongoing developmental process that requires intentional pedagogical support. This leads to the central question guiding the inquiry:

Guided by these considerations, the research is framed by the following central question:

How can educational design interventions foster ethical self-development and virtue-oriented professional dispositions among pre-service teachers within Indian teacher-education programmes?

This guiding question shapes the conceptual, methodological, and practical structure of the study. It emphasises not only the development of ethical reasoning but also the cultivation of dispositions such as empathy, fairness, courage, and reflective judgement that are fundamental to the moral agency of future teachers(Janapati & Vijayalakshmi, 2024) Through this question, the research positions ethics as a core element of teacher education, requiring thoughtful design, reflective engagement, and sustained pedagogical support.

2.2 Goals for Innovation

The goals that drive the development of the innovation are shaped by the realities of teacher preparation in India and by the broader expectations of the profession. The innovation aims to achieve the following: **Embed ethics more meaningfully** within the pre-service teacher curriculum by providing structured opportunities for ethical exploration, dialogue, and practice(Finefter-Rosenbluh & Power, 2023). **Demonstrate that virtue-based principles** such as fairness, empathy, and responsible conduct can be used as a shared foundation for engaging learners who come from a variety of cultural and worldview backgrounds. **VALUE ETHICS Test the feasibility of using Educational Design Research** to create an

intervention that supports ethical sensitivity, reflective judgment, and value-based decision-making among pre-service teachers (Hawlitschek & Henschel, 2025).

These goals collectively address the long-recognised need for stronger ethics preparation in teacher-education systems.

2.3 Connection Between Theory and the Proposed Design

The educational design is built on established theoretical contributions from multiple fields:

studies on ethical sensitivity and moral intention in teaching, (Tirri & Kuusisto, 2022). virtue ethics and character education(Walker et al., 2020). Teacher identity and professional responsibility, GORENEWALD, reflective learning traditions such as *Bildung*(Yagata, 2018), and design-based intervention models that link theory to practice(Hoadley & Campos, 2022). These theoretical contributions do not function in isolation; instead, they interact to shape the structure of the learning environment and how pre-service teachers engage with ethical content.

2.3 Expected Developmental Processes

When implemented, the design is expected to support the following developmental processes among pre-service teachers: improved recognition of ethical issues in classroom scenarios, (Clark et al., 2024), longer reasoning based on professional virtues(Ebling et al., 2023). deeper reflective engagement with one's values and biases(Scoupe et al., 2024), and greater readiness to translate ethical understanding into action(Borthwick & Hansen, 2017). These processes reflect the kinds of ethical growth that teacher education programs aim to cultivate.

2.5 Variables Within the Design

In this study, ethical growth constitutes the **dependent variable**, while

factors such as worldview, gender, age, prior life experiences, and programme level pre-service teachers form the **independent variables** that may influence how learners engage with the intervention.

3. Theoretical and Practical Context

The ethical preparation of pre-service teachers is shaped by multiple layers of theory that together explain how ethical understanding develops and how it can be supported through intentional pedagogical design. These theoretical perspectives also have direct implications for practice, because ethical behaviour in teaching emerges through lived experiences, reflective engagement, and guided opportunities to explore moral complexity(V. Sathasivam et al., 2024). The present research draws on four major conceptual foundations each offering a lens for understanding how ethics education can be strengthened through Educational Design Research (Lachheb et al., 2023).

3.1 Insights on Ethics in Teacher Education

Teacher-education systems across the world, including India, acknowledge the importance of preparing teachers who can uphold fairness, dignity, and responsibility in their work. However, studies show that ethics often remains an implicit or peripheral aspect of training, leading to inconsistent ethical awareness among new teachers(Eaton, 2023). Ethical challenges in classrooms, such as maintaining impartiality, protecting student well-being, handling conflicts, or navigating cultural sensitivities, require teachers to exercise sound judgment. This makes ethical formation not an optional element, but a core component of professional competence(Yacek et al., 2023) . The theoretical insight here is that ethics learning must move beyond theoretical lectures and be embedded within meaningful, reflective, and practice-oriented experiences(Sheppick, 2024).

3.2 Virtue Ethics and Diverse Worldviews

Virtue ethics provides a foundational perspective for understanding how ethical dispositions can be cultivated in teacher education. Unlike rule-based approaches, virtue ethics focuses on the development of character traits such as honesty, empathy, courage, and practical wisdom which guide teachers' everyday decisions(Fernández De Casadevante, 2023). These virtues have cross-cultural relevance and can be approached in ways that respect India's diversity of worldviews, cultural traditions, and belief systems(Chan & Ananthram, 2019). This theoretical perspective emphasises that ethics education must help learners recognise how virtues operate within real teaching contexts and how personal worldviews influence moral interpretation (Lilja, 2023).

3.3 The Bildung Perspective on Teacher Self-Development

The concept of *Bildung* adds another layer by framing ethical development as a holistic and lifelong process. From a Bildung perspective, the teacher is not merely acquiring skills but is engaged in formative experiences that shape the self emotionally, intellectually, and morally (Esser-Noethlichs & Hegland, 2025). This theory suggests that ethics education should invite learners into reflective encounters that deepen self-awareness, promote autonomy, and inspire responsible professional identity formation (Pach et al., 2025). It positions the teacher as an evolving moral agent who grows through guided engagement with complex situations rather than through prescriptive instruction (Yan, 2025).

3.4 Didactic Approaches Supporting Ethical Learning

Ethical understanding develops through structured interactions that require learners to analyse dilemmas, challenge assumptions, engage in dialogue, and reflect on their values. Didactic approaches such as ethical case

analysis, collaborative discussion, microteaching with value-oriented feedback, and guided reflection have been shown to strengthen moral reasoning and intention formation (Morrison-Love & Patrick, 2025). These approaches create practical contexts where pre-service teachers can test their ideas, understand the consequences of different actions, and refine their ethical judgments (Tao et al., 2025). Educational Design Research integrates these approaches by iteratively designing, testing, and refining learning experiences that support ethical competence (Hare et al., 2025).

3.5 Reflection-as-Development Model (Alternative to MORE 3.1.2)

To support deeper ethical growth, this study draws on a reflection-as-development model, which emphasises systematic cycles of noticing, interpreting, evaluating, and acting (Daff et al., 2024). This model aligns with traditions of critical reflection in teacher education and provides a structured pathway for pre-service teachers to examine their assumptions, articulate moral tensions, and rehearse ethically grounded responses (Kolajo, 2025). It serves as a practical tool for generating ethical insight through reflective engagement and complements the theoretical pillars described above (Radanliev, 2025).

How These Theories Work Together

These theoretical perspectives, ethical gaps, virtue ethics, Bildung, didactic strategies, and reflective models function collectively rather than independently. Together, they: explain how ethical understanding develops; identify the conditions that support ethical growth; inform the design of ethics-learning interventions; and guide EDR cycles that refine the intervention based on authentic classroom realities. This integrated theoretical and practical context forms the intellectual foundation for the ethics-education intervention proposed in this research.

4.1 Ethical Responsibilities and Gaps in Teacher Education

Teacher education plays a critical role in shaping the ethical commitments and professional identities of future educators (Barahona et al., 2024). However, numerous studies reveal that ethics remains one of the most underdeveloped domains within teacher-preparation programs, such as (Matete, 2021). While the curriculum often highlights methods, content knowledge, and assessment strategies, the deeper moral dimensions of teaching fairness, care, integrity, respect, and responsibility receive limited systematic attention (Vlachopoulos & Makri, 2024). This oversight leaves many pre-service teachers without the conceptual tools or reflective habits needed to navigate ethical dilemmas in real classroom environments (Hooper & Johnson, 2025). In the Indian context, the situation is further complicated by the diversity of cultural norms, religious traditions, and community expectations (Fernández De Casadevante, 2023). Teachers frequently face situations that require culturally sensitive judgment, such as addressing gender bias, responding to differential treatment of students, or ensuring inclusive classroom practices (Khanolainen et al., 2024). Research indicates that pre-service teachers often rely on personal intuition rather than informed ethical reasoning, due to the lack of structured opportunities for guided ethical reflection during their training (Ho & Lee, 2025). As a result, their readiness to handle morally complex situations remains uneven. Pedagogical interventions focusing on ethical awareness, value clarification, and reflective dialogue are rarely embedded into the core structure of teacher education programmes (Ahmadpour et al., 2025). This gap suggests a pressing need for redesigning ethics education so that ethical thinking and virtue-based reasoning become an integral part of professional learning. Educational Design Research provides a pathway for addressing this need by enabling iterative development of contextually

grounded interventions that explicitly target ethical growth (De Witt et al., 2024). The theoretical insight underlying this section is clear: Ethical competence in teaching does not emerge automatically; it must be cultivated through intentional design, structured reflection, and ongoing engagement with moral complexity (Nic Mhuirí et al., 2025). Without such opportunities, pre-service teachers may enter the profession technically prepared but ethically underdeveloped an imbalance that significantly weakens the foundation of quality education (Chen et al., 2025).

4.2 Virtue Ethics and Diverse Worldviews in Teacher Development

Ethics in teaching is deeply connected to the development of virtues character qualities that shape how teachers interpret situations, respond to student needs, and enact their professional responsibilities (Winanjar Rahayu et al., 2023). Virtue ethics offers a useful lens for teacher education because it moves beyond rules or policy compliance and focuses instead on cultivating dispositions such as fairness, empathy, honesty, patience, respect, and courage (Pritchard & Englehardt, 2024). These virtues influence how teachers form relationships with learners, how they manage conflicts, and how they uphold ethical commitments in complex classroom environments (Thornberg et al., 2022). In the Indian teacher-education context, ethical behaviour is shaped by a rich diversity of cultural traditions, linguistic communities, belief systems, and lived experiences (Brinkmann, 2019). Pre-service teachers enter training with differing worldviews, which influence their interpretations of moral situations and their understandings of what “good teaching” means (Jimenez et al., 2025). Rather than viewing this diversity as a barrier, virtue ethics provides a common foundation that can bring together learners with different backgrounds. Because virtues are not tied to any single cultural or religious framework, they offer a shared moral vocabulary through which pre-

service teachers can discuss meaningful ethical questions(Papouli, 2019). This theoretical perspective highlights an important practical implication: ethics education must acknowledge and work with the diversity of learners' worldviews (Sakiman & Yasin, 2023). Activities that encourage cross-cultural dialogue, comparative ethical reasoning, and reflection on personal values can help pre-service teachers recognise how their backgrounds shape their moral perceptions (Pevec-Zimmer et al., 2024). Such engagement not only deepens ethical understanding but also prepares future teachers to work responsibly with diverse student populations (T. Xu et al., 2024). By linking virtue ethics with worldview awareness, the research positions ethical development as both a personal and relational process one that requires openness, humility, and critical self-awareness (Fernández De Casadevante, 2023).

4.3 Bildung and Ethical Self-Formation of Teachers

The concept of *Bildung* provides a holistic perspective on teacher development by viewing ethical growth as a lifelong process of shaping the self through reflective engagement with experiences, values, and social realities(Rytzler & Magnússon, 2025). Unlike approaches that treat ethics as a set of external rules, *Bildung* emphasises inner transformation encouraging individuals to examine their assumptions, expand their understanding of others, and cultivate moral autonomy (Yacek et al., 2023). In the context of teacher education, *Bildung* contributes a powerful framework for helping pre-service teachers develop a reflective and ethically grounded professional identity (Magaña Figueroa & Flores, 2016). From a *Bildung*-oriented viewpoint, ethical formation involves more than learning what is right or wrong; it requires developing the capacity to participate responsibly in the moral life of the classroom and wider society (Fernández-Espinosa et al., 2025). This includes an ability

to recognise ethical tensions, adopt multiple perspectives, and respond thoughtfully to diverse student needs (Darling-Hammond et al., 2020). Such qualities cannot be transmitted solely through lectures or theoretical discussions. Instead, *Bildung* requires pedagogical processes that encourage inquiry, dialogue, and critical self-examination processes that allow pre-service teachers to integrate values with practice and align their emerging professional identity with ethical commitments (Hordvik et al., 2021). The practical implication of this theoretical lens is that ethics education should create opportunities for pre-service teachers to encounter moral complexity through structured reflection, narrative work, and guided discussion (Verma et al., 2025). When learners engage deeply with value conflicts, personal experiences, and the lived realities of teaching, they begin to form an ethically responsive sense of self (Tobin et al., 2024). This aligns closely with the aims of Educational Design Research, which seeks to design interventions that nurture such transformative learning processes (Feng et al., 2025). By incorporating *Bildung* into the design framework, the research foregrounds ethical self-formation as a central outcome of professional preparation (Marginson, 2024).

4.4 Didactic Approaches for Supporting Ethical Learning in Teacher Education

Ethical competence develops through deliberate engagement with pedagogical practices that allow pre-service teachers to explore, question, and refine their moral judgments (Meeuwssen, 2023). Didactic strategies play a central role in this process because they shape the kinds of experiences learners encounter and the depth of reflection they undertake. Instead of relying solely on theoretical instruction, effective ethics education draws on interactive, reflective, and participatory approaches that enable pre-service teachers to confront ethical dilemmas, articulate

their reasoning, and examine the consequences of different choices (Zahid & Nawab, 2025). Case-based learning is a particularly powerful didactic tool. By analysing realistic classroom dilemmas, pre-service teachers learn to identify competing values, anticipate possible outcomes, and consider the perspectives of multiple stakeholders (Barry et al., 2025). This method strengthens moral imagination and encourages learners to move beyond intuitive responses toward more grounded and reasoned ethical decisions (Rozuel, 2012). Collaborative ethical dialogue further enhances this process by allowing students to engage with the viewpoints of peers, negotiate meaning, and refine their judgments through discourse (Yin et al., 2025). Such dialogic learning promotes empathy, mutual respect, and critical thinking qualities essential for the moral life of the classroom (Frijters et al., 2008). Structured reflection also serves as an important didactic component. When pre-service teachers engage in systematic cycles of reflection guided by prompts, frameworks, or models they deepen their understanding of how personal values and biases shape their professional responses (H. Li, 2025). Reflection supports self-awareness and helps learners develop coherent ethical identities. Scenario-based simulations offer another powerful avenue, providing opportunities to practise ethical decision-making in controlled, low-risk setting (Kyambade et al., 2025). Through repeated exposure to ethically significant situations, pre-service teachers can develop confidence and behavioural readiness (Nichol et al., 2025). Taken together, these didactic strategies case analysis, dialogic engagement, reflective inquiry, and scenario-based reasoning create an integrated learning environment in which ethical growth becomes possible (Svaricek, 2024). By designing interventions that bring these approaches into productive interaction, teacher-education programmes can support the development of ethical awareness, virtue-based reasoning, and moral agency among future

teachers (Mohamed, 2025).

5. Educational Design Research Alignment and Practical Application

Educational Design Research (EDR) offers a methodological foundation for developing and refining ethics-learning interventions in teacher education (Mirattanaphrai & Srikoorn, 2025). Its core strength lies in its ability to connect theoretical insights with authentic classroom realities through iterative cycles of design, enactment, analysis, and redesign (Parmaxi & Zaphiris, 2020). In the context of ethics education for pre-service teachers, this approach ensures that the intervention is not only grounded in theory but also responsive to the needs, challenges, and cultural contexts of learners in Indian teacher-education programmes (Osiesi & Blignaut, 2025). A key feature of EDR is the formulation of design conjectures explicit statements that link theoretical ideas to expected learning processes (Cremers et al., 2016). In this study, theoretical perspectives drawn from virtue ethics, worldview diversity, Bildung, and dialogic-reflective didactics have been mapped onto specific pedagogical strategies such as ethical case analysis, guided moral dialogue, reflection cycles, and scenario-based reasoning (Fraser-Burgess et al., 2024). These design features function as testable elements within the intervention, enabling researchers to examine how and why ethical learning occurs (Hakimi et al., 2021). This structured connection between theory and practice allows the research to generate both practical solutions and theoretical contributions (Lim, 2026). The practical application of EDR in this project centres on implementing the ethics-learning intervention within teacher-education environments and observing how pre-service teachers engage with the materials, activities, and reflection tasks (Eriksson et al., 2025). Data will be collected to understand how learners interpret ethical dilemmas, articulate values, form moral

intentions, and reflect on their emerging professional identities (Dutta et al., 2022). The iterative nature of EDR ensures that insights from early implementations inform subsequent revisions, leading to a more refined and contextually appropriate intervention (Quinton et al., 2025). Importantly, EDR aligns with the goals of this research in two ways. First, it supports the development of a pedagogical approach that is culturally relevant to Indian teacher education, where diverse worldviews shape ethical reasoning (Bourn & Soysal, 2021). Second, it offers a systematic method for evaluating how the intervention influences ethical awareness, virtue-based reasoning, reflective depth, and behavioural intention (Heyder et al., 2023). Through this dual focus on design and evidence, EDR elevates ethics education from a theoretical aspiration to a practical, measurable component of pre-service teacher preparation (Farr, 2010). Ultimately, the application of EDR strengthens the integrity of the proposed intervention and ensures that the resulting insights have both academic and practical value (Kaur et al., 2024). The approach not only contributes to improving ethics education but also expands the broader research conversation about how teachers develop as moral agents within complex educational landscapes (Ying & Jackson, 2025).

6. Implications, Expected Contributions, and Practical Significance

The development of an ethics-learning intervention for pre-service teachers carries important implications for teacher education in India and contributes to ongoing international discussions on how educators can be prepared for the moral complexities of classroom life (Guilfoyle et al., 2024). As teaching requires professionals who can respond sensitively and responsibly to diverse student needs, strengthening ethical formation within pre-service programmes becomes a central priority (Kula, 2025). This research offers a structured approach for embedding ethics

meaningfully into teacher preparation, demonstrating how theory-informed design can cultivate ethical awareness, reflective judgment, and virtue-based professional behaviour (Bairaktarova & Woodcock, 2017). At the theoretical level, the study contributes to scholarship by articulating how virtue ethics, worldview diversity, Bildung, and reflective-didactic approaches can be integrated within an EDR framework. This conceptual integration expands existing literature by positioning ethical self-development as a dynamic process supported through design-based inquiry rather than as a static curricular component. The research also adds to the field by showing how culturally diverse contexts such as Indian teacher education can adapt universal ethical principles in ways that respect learners' backgrounds and support inclusive professional formation (W. Xu & Stahl, 2022). Methodologically, the study contributes to the advancement of Educational Design Research in teacher education (Alvunger & Wahlström, 2018). By developing design conjectures, testing them in authentic learning environments, and refining the intervention based on empirical insights, the research demonstrates how EDR can effectively bridge theory and practice (McKenney & Reeves, 2021). This process generates not only a context-sensitive intervention but also transferable design principles that other institutions may use to develop or revise their own ethics-education initiatives. Such methodological clarity strengthens the credibility and applicability of the findings (Reed et al., 2021). Practically, the intervention offers teacher-education programmes a concrete model for strengthening ethics training (König et al., 2025). Through its focus on ethical dilemmas, guided dialogue, reflective cycles, and scenario-based learning, the design provides pre-service teachers with structured opportunities to engage with real-world moral challenges (Cohen et al., 2025). This enables learners to develop ethical confidence, articulate their values, and establish a more coherent sense of professional

identity. The model also supports faculty members by offering pedagogical tools that can be adopted within existing courses without requiring major structural changes (B. Li et al., 2022). The expected outcome of this research is a more ethically responsive teacher preparation process one that equips future educators to act with integrity, fairness, and empathy (Carvalho et al., 2025). By addressing an urgent and persistent gap in teacher education, the study positions ethics as an essential component of educational quality and professional excellence MAXWELL. Its contributions extend beyond the immediate context, offering insights that can inform ethical training in related fields and across diverse educational settings (Ali et al., 2024).

7. Conclusion

Ethics education is an essential pillar of teacher preparation, yet it often remains underdeveloped within many teacher-education programmes. This study addresses this gap by proposing an ethically grounded, theoretically coherent, and practically feasible intervention designed through the principles of Educational Design Research. By integrating virtue ethics, worldview diversity, Bildung, and reflective-didactic practices, the research frames ethical development not as a static body of knowledge but as a lived and evolving dimension of professional identity. The intervention constructed through this research recognises that pre-service teachers require meaningful opportunities to engage with ethical dilemmas, articulate their values, reflect on their assumptions, and practise responsible decision-making. Through guided dialogue, structured reflection, scenario-based reasoning, and value-based inquiry, learners can develop a deeper understanding of ethical complexities encountered in teaching. This approach is particularly relevant in the Indian context, where cultural diversity, social expectations, and professional pressures

shape teachers' ethical responsibilities in unique ways. Ultimately, the study advocates for a vision of teacher education in which ethical formation stands alongside pedagogical skill and subject knowledge as a core dimension of professional excellence. Preparing teachers who can act with integrity, empathy, and sound judgment is essential for nurturing equitable and caring educational environments. The intervention developed here offers one pathway toward this goal, and its refinement through future research may provide deeper insights into how ethical self-development can be meaningfully supported across diverse educational contexts.

REFERENCES:

- Ahmadpour, N., Pillai, A. G., Zhang, W. Q., Loke, L., Sachathep, T., Zhou, Z., & Gough, P. (2025). Ethics Reflexivity Canvas: Resourcing Ethical Sensitivity for HCI Educators. *Proceedings of the 2025 CHI Conference on Human Factors in Computing Systems*, 1–17. <https://doi.org/10.1145/3706598.3713574>
- Ali, O., Murray, P. A., Momin, M., Dwivedi, Y. K., & Malik, T. (2024). The effects of artificial intelligence applications in educational settings: Challenges and strategies. *Technological Forecasting and Social Change*, 199, 123076. <https://doi.org/10.1016/j.techfore.2023.123076>
- Alvunger, D., & Wahlström, N. (2018). Research-based teacher education? Exploring the meaning potentials of Swedish teacher education. *Teachers and Teaching*, 24(4), 332–349. <https://doi.org/10.1080/13540602.2017.1403315>
- Bairaktarova, D., & Woodcock, A. (2017). Engineering Student's Ethical Awareness and Behavior: A New Motivational Model. *Science and Engineering Ethics*, 23(4), 1129–1157. <https://doi.org/10.1007/s11948-016-9814-x>
- Barahona, M., Darwin, S., Durán-Castro, M., & Lobos Stevens, C. (2024). Analyzing teacher educators' perspectives on professional pedagogical responsibility in initial EFL teacher education. *Cogent Education*, 11(1), 2356429. <https://doi.org/10.1080/2331186X.2024.2356429>

- Barry, B. A., Sharp, R. R., & McGowan, M. L. (2025). Teaching the bioethics of information technologies and artificial intelligence in healthcare: Case-based learning for identifying and addressing ethical issues. *International Journal of Ethics Education*, 10(2), 251–264. <https://doi.org/10.1007/s40889-025-00218-3>
- Borthwick, A. C., & Hansen, R. (2017). Digital Literacy in Teacher Education: Are Teacher Educators Competent? *Journal of Digital Learning in Teacher Education*, 33(2), 46–48. <https://doi.org/10.1080/21532974.2017.1291249>
- Bosnjak, M., Ajzen, I., & Schmidt, P. (2020). The theory of planned behavior: Selected recent advances and applications. *Europe's Journal of Psychology*, 16(3), 352–356. <https://doi.org/10.5964/ejop.v16i3.3107>
- Bourn, D., & Soysal, N. (2021). Transformative Learning and Pedagogical Approaches in Education for Sustainable Development: Are Initial Teacher Education Programmes in England and Turkey Ready for Creating Agents of Change for Sustainability? *Sustainability*, 13(16), 8973. <https://doi.org/10.3390/su13168973>
- Brinkmann, S. (2019). Teachers' beliefs and educational reform in India: From 'learner-centred' to 'learning-centred' education. *Comparative Education*, 55(1), 9–29. <https://doi.org/10.1080/03050068.2018.1541661>
- Campbell, E. (2008). The Ethics of Teaching as a Moral Profession. *Curriculum Inquiry*, 38(4), 357–385. <https://doi.org/10.1111/j.1467-873X.2008.00414.x>
- Carr, D. (2006). Professional and personal values and virtues in education and teaching. *Oxford Review of Education*, 32(2), 171–183. <https://doi.org/10.1080/03054980600645354>
- Carrington, S., & Sagers, B. (2008). Service-learning informing the development of an inclusive ethical framework for beginning teachers. *Teaching and Teacher Education*, 24(3), 795–806. <https://doi.org/10.1016/j.tate.2007.09.006>
- Carvalho, L., Bonifácio, E., & Proença, A. (2025). Ethics in the teaching profession – the perception of students in initial training. *Social Sciences & Humanities Open*, 11, 101554. <https://doi.org/10.1016/j.ssaho.2025.101554>

- Chan, C., & Ananthram, S. (2019). Religion-Based Decision Making in Indian Multinationals: A Multi-faith Study of Ethical Virtues and Mindsets. *Journal of Business Ethics*, 156(3), 651–677. <https://doi.org/10.1007/s10551-017-3558-7>
- Chen, S., Salleh, S. M., & Salleh, M. A. M. (2025). Media and information literacy among pre-service teachers: A systematic review of key trends and gaps (2013–2024). *International Journal of Information Management Data Insights*, 5(2), 100348. <https://doi.org/10.1016/j.ijime.2025.100348>
- Clark, D. B., Scott, D., DiPasquale, J. P., & Becker, S. (2024). Reframing design in education: Proposing a framework to support pre-service teachers in adopting designerly stances. *Journal of the Learning Sciences*, 33(4–5), 613–666. <https://doi.org/10.1080/10508406.2024.2397762>
- Cohen, A., Kolikant, Y. B.-D., Sapir, M., Resnik, J., & Patterson, T. J. (2025). Pedagogies of dialogue in global citizenship education: Pre-service teachers navigate controversial issues across borders. *Discourse: Studies in the Cultural Politics of Education*, 1–13. <https://doi.org/10.1080/01596306.2025.2574981>
- Cremers, P. H. M., Wals, A. E. J., Wesselink, R., & Mulder, M. (2016). Design principles for hybrid learning configurations at the interface between school and workplace. *Learning Environments Research*, 19(3), 309–334. <https://doi.org/10.1007/s10984-016-9209-6>
- Crigger, N., & Godfrey, N. (2014). From the Inside Out: A New Approach to Teaching Professional Identity Formation and Professional Ethics. *Journal of Professional Nursing*, 30(5), 376–382. <https://doi.org/10.1016/j.profnurs.2014.03.004>
- Daff, L., Tame, C., & Sands, J. (2024). A course design approach that encourages reflective practice habits. *The International Journal of Management Education*, 22(2), 100990. <https://doi.org/10.1016/j.ijme.2024.100990>
- Darling-Hammond, L., Flook, L., Cook-Harvey, C., Barron, B., & Osher, D. (2020). Implications for educational practice of the science of learning and development. *Applied Developmental Science*, 24(2), 97–140. <https://doi.org/10.1080/10888691.2018.1537791>
- De Witt, A., Bootsma, M., Dermody, B. J., & Rebel, K. (2024). Designing transformative interventions for a world in crisis: How the ‘Worldview Journey’ invites for personal, cultural, and systems transformation.

- Environmental Science & Policy*, 162, 103896.
<https://doi.org/10.1016/j.envsci.2024.103896>
- Dunn, R., Hattie, J., & Bowles, T. (2019). Exploring the experiences of teachers undertaking Educational Design Research (EDR) as a form of teacher professional learning. *Professional Development in Education*, 45(1), 151–167. <https://doi.org/10.1080/19415257.2018.1500389>
- Dutta, D., Mishra, S. K., & Budhwar, P. (2022). Ethics in competency models: A framework towards developing ethical behaviour in organisations. *IIMB Management Review*, 34(3), 208–227.
<https://doi.org/10.1016/j.iimb.2022.10.002>
- Eaton, S. E. (with Khan, Z. R.). (2023). *Ethics and Integrity in Teacher Education* (1st ed). Springer International Publishing AG.
- Eriksson, A., Olsson, D., & Gericke, N. (2025). Teaching for photosynthesis literacy: An education design research study. *Journal of Biological Education*, 1–18. <https://doi.org/10.1080/00219266.2025.2467764>
- Esser-Noethlichs, M., & Hegland, L. (2025). PE teachers' experiences with teaching outdoor swimming, self-rescue and lifesaving: A context for skill development or Bildung? *European Physical Education Review*, 1356336X251358128. <https://doi.org/10.1177/1356336X251358128>
- Eßling, I., Todorova, M., Sunder, C., Steffensky, M., & Meschede, N. (2023). The development of professional vision in pre-service teachers during initial teacher education and its relationship to beliefs about teaching and learning. *Teaching and Teacher Education*, 132, 104250.
<https://doi.org/10.1016/j.tate.2023.104250>
- Evangelou, S. M., & Xenos, M. (2025). Peer assessment in education: A seven-year implementation and iterative development of a customizable digital tool. *Next Research*, 2(4), 101000.
<https://doi.org/10.1016/j.nexres.2025.101000>
- Farr, F. (2010). *The Discourse of Teaching Practice Feedback* (0 ed.). Routledge.
<https://doi.org/10.4324/9780203846742>
- Feng, X., Zhang, N., Yang, D., Lin, W., & Maulana, R. (2025). From awareness to action: Multicultural attitudes and differentiated instruction of teachers in Chinese teacher education programmes. *Learning Environments Research*, 28(2), 345–386. <https://doi.org/10.1007/s10984-024-09518-9>

- Fernández De Casadevante, M. (2023). Overcoming cultural barriers resulting from religious diversity. *Church, Communication and Culture*, 8(1), 104–124. <https://doi.org/10.1080/23753234.2023.2170898>
- Fernández-Espinosa, V., Redondo-Corcobado, P., & Velázquez Gil, M. (2025). Perspectives and attitudes of teachers on character education in schools in the Community of Madrid. *Cogent Social Sciences*, 11(1), 2556219. <https://doi.org/10.1080/23311886.2025.2556219>
- Finefter-Rosenbluh, I., & Power, K. (2023). Exploring preservice teachers' professional vision: Modes of isolation, ethical noticing, and anticipation in research communities of practice. *Teaching and Teacher Education*, 132, 104245. <https://doi.org/10.1016/j.tate.2023.104245>
- Fraser-Burgess, S., Heybach, J., & Metro-Roland, D. (Eds.). (2024). Traditions in Ethics and Education: In *The Cambridge Handbook of Ethics and Education* (1st ed., pp. 1–300). Cambridge University Press. <https://doi.org/10.1017/9781009188128.003>
- Frijters, S., Ten Dam, G., & Rijlaarsdam, G. (2008). Effects of dialogic learning on value-loaded critical thinking. *Learning and Instruction*, 18(1), 66–82. <https://doi.org/10.1016/j.learninstruc.2006.11.001>
- Grande, V., Lennerfors, T. T., Peters, A.-K., & Von Hausswolff, K. (2024). The virtuous, the caring, and the free: Ethical theory to understand the ethics of the teacher as a role model in engineering education. *European Journal of Engineering Education*, 49(1), 1–21. <https://doi.org/10.1080/03043797.2023.2236959>
- Guilfoyle, L., McCormack, O., & Erduran, S. (2024). The role of research experiences in developing pre-service teachers' epistemic beliefs. *Teaching and Teacher Education*, 144, 104599. <https://doi.org/10.1016/j.tate.2024.104599>
- Hakimi, L., Eynon, R., & Murphy, V. A. (2021). The Ethics of Using Digital Trace Data in Education: A Thematic Review of the Research Landscape. *Review of Educational Research*, 91(5), 671–717. <https://doi.org/10.3102/00346543211020116>
- Hansen, S., Hessevaagbakke, E., Lindeflaten, K., Elvan, K., & Lillekroken, D. (2024). Nurturing ethical insight: Exploring nursing students' journey to ethical competence. *BMC Nursing*, 23(1), 568. <https://doi.org/10.1186/s12912-024-02243-x>

- Hare, R., Ferguson, S., & Tang, Y. (2025). Enhancing student experience and learning with iterative design in an intelligent educational game. *British Journal of Educational Technology*, 56(2), 551–568. <https://doi.org/10.1111/bjet.13526>
- Hawlitshchek, P., & Henschel, S. (2025). Promoting teacher knowledge and self-efficacy for data-based decision-making: Dimensional structure, sensitivity to professional development, and relationships with teachers' intended data use. *Zeitschrift Für Erziehungswissenschaft*. <https://doi.org/10.1007/s11618-025-01321-3>
- Heyder, T., Passlack, N., & Posegga, O. (2023). Ethical management of human-AI interaction: Theory development review. *The Journal of Strategic Information Systems*, 32(3), 101772. <https://doi.org/10.1016/j.jsis.2023.101772>
- Ho, C. S. M., & Lee, J. C.-K. (2025). From intuition to action: Exploring teachers' ethical awareness in the use of AI tools in education. *Computers and Education: Artificial Intelligence*, 9, 100502. <https://doi.org/10.1016/j.caeai.2025.100502>
- Hoadley, C., & Campos, F. C. (2022). Design-based research: What it is and why it matters to studying online learning. *Educational Psychologist*, 57(3), 207–220. <https://doi.org/10.1080/00461520.2022.2079128>
- Hogan, S. (2014). Being Ethical: Process Drama and Professional Ethics Education for Pre-service Drama Teachers. *NJ*, 38(1), 74–87. <https://doi.org/10.1080/14452294.2014.11649574>
- Hooper, A., & Johnson, K. (2025). Teacher educators' reflections on supporting pre-service and early career educators' social-emotional learning. *Social and Emotional Learning: Research, Practice, and Policy*, 5, 100100. <https://doi.org/10.1016/j.sel.2025.100100>
- Hordvik, M., Haugen, A. L., Engebretsen, B., Møller, L., & Fletcher, T. (2021). A collaborative approach to teaching about teaching using models-based practice: Developing coherence in one PETE module. *Physical Education and Sport Pedagogy*, 26(5), 433–447. <https://doi.org/10.1080/17408989.2020.1812558>
- Janapati, G., & Vijayalakshmi, V. (2024). Creating a resilient pedagogy: Character strengths intervention for aspiring educators. *Acta Psychologica*, 249, 104465. <https://doi.org/10.1016/j.actpsy.2024.104465>

- Jimenez, L., Groves, S., Cole, C., Holtz, E., & Worley, C. (2025). A mixed-methods approach to understanding pre-service teachers' perceived cultural competency development. *Cogent Education*, 12(1), 2556619. <https://doi.org/10.1080/2331186X.2025.2556619>
- Karakuş, N., Gedik, K., & Kazazoğlu, S. (2025). Ethical Decision-Making in Education: A Comparative Study of Teachers and Artificial Intelligence in Ethical Dilemmas. *Behavioral Sciences*, 15(4), 469. <https://doi.org/10.3390/bs15040469>
- Kaur, H., Sanjaiy SI, D., Paul, T., Kumar Thakur, R., Kumar Reddy, K. V., Mahato, J., & Naveen, K. (2024). Evolution of Endpoint Detection and Response (EDR) in Cyber Security: A Comprehensive Review. *E3S Web of Conferences*, 556, 01006. <https://doi.org/10.1051/e3sconf/202455601006>
- Khanolainen, D., Nesterova, Y., Semenova, E., Fatkhulova, E., & Trach, J. (2024). Teachers' beliefs and characteristics predictive of their willingness to cultivate a safe, ethnically inclusive school environment. *International Journal of Educational Research*, 127, 102420. <https://doi.org/10.1016/j.ijer.2024.102420>
- Kolajo, Y. (2025). Advancing pedagogical excellence through reflective teaching practice and adaptation. *Reflective Practice*, 26(6), 832–847. <https://doi.org/10.1080/14623943.2025.2504143>
- König, J., Heine, S., Weyers, J., Arntz, C.-G., Kramer, C., Strauß, S., Gerhard, K., Mühle, J., Engartner, T., Großschedl, J., Hanisch, C., Hanke, P., Hennemann, T., Jost, J., Kaspar, K., & Rott, B. (2025). Effectiveness of interventions in teacher education: Synthesis of reviews (2010–2024). *Zeitschrift Für Erziehungswissenschaft*. <https://doi.org/10.1007/s11618-025-01319-x>
- Kopcha, T. J., Schmidt, M. M., & McKenney, S. (2015). Editorial 31(5): Special issue on educational design research (EDR) in post-secondary learning environments. *Australasian Journal of Educational Technology*, 31(5). <https://doi.org/10.14742/ajet.2903>
- Kula, S. S. (2025). Metaphorical perceptions of pre-service teachers about inclusive education and the effects of an inclusive education course on perspectives about the teaching profession in Türkiye. *Teaching Education*, 36(4), 430–450.

<https://doi.org/10.1080/10476210.2025.2549804>

- Kyambade, M., Nkurunziza, G., Namatovu, A., Tushabe, M., & Kwemarira, G. (2025). Enhancing critical thinking and ethical decision-making through learner-centered strategies in business education. *Cogent Education*, 12(1), 2588420. <https://doi.org/10.1080/2331186X.2025.2588420>
- Lachheb, A., Abramenska-Lachheb, V., Moore, S., & Gray, C. (2023). The role of design ethics in maintaining students' privacy: A call to action to learning designers in higher education. *British Journal of Educational Technology*, 54(6), 1653–1670. <https://doi.org/10.1111/bjet.13382>
- Lehtonen, D. (2021). Constructing a design framework and design methodology from educational design research on real-world educational technology development. *EDeR. Educational Design Research*, 5(2). <https://doi.org/10.15460/eder.5.2.1680>
- Li, B., Li, Z., & Fu, M. (2022). Understanding beginning teachers' professional identity changes through job demands-resources theory. *Acta Psychologica*, 230, 103760. <https://doi.org/10.1016/j.actpsy.2022.103760>
- Li, H. (2025). Reflective Practice for Pre-Service Teachers' Professional Development. *SAGE Open*, 15(3), 21582440251363136. <https://doi.org/10.1177/21582440251363136>
- Lilja, A. (2023). Important Perspectives and Concepts to Teach in Ethics Education. *Social Sciences*, 12(10), 582. <https://doi.org/10.3390/socsci12100582>
- Lim, W. M. (2026). Theory and theory development: Guidelines for establishing theoretical gaps, foundations, contributions, and implications. *Journal of Business Research*, 202, 115745. <https://doi.org/10.1016/j.jbusres.2025.115745>
- Magaña Figueroa, C., & Flores, E. (2016). *Developing Professional Identity Through Pre-Service Teachers Experiences*. 2208–2212. <https://doi.org/10.21125/edulearn.2016.1441>
- Marginson, S. (2024). The Double-Coded Self in Higher Education: Student Self-Formation and Social Sustainability. *British Journal of Educational Studies*, 1–21. <https://doi.org/10.1080/00071005.2024.2422444>
- Matete, R. E. (2021). Teaching profession and educational accountability in Tanzania. *Heliyon*, 7(7), e07611. <https://doi.org/10.1016/j.heliyon.2021.e07611>

- McKenney, S., & Reeves, T. C. (2021). Educational design research: Portraying, conducting, and enhancing productive scholarship. *Medical Education*, 55(1), 82–92. <https://doi.org/10.1111/medu.14280>
- Meeuwssen, B. (2023). Thematic Paper on Ethics in Higher Business Education—Educational Design Research Need. *Caritas et Veritas*, 12(2), 72–83. <https://doi.org/10.32725/cetv.2022.028>
- Mirattanaphrai, P., & Srikoon, S. (2025). Design and development of innovator self-assessment questionnaire for students in grade 6: Utilizing educational design research. *Social Sciences & Humanities Open*, 11, 101414. <https://doi.org/10.1016/j.ssaho.2025.101414>
- Mohamed, M. S. (2025). Enhancing Ethical Reasoning in Science Education: A Technology-Driven Instructional Approach. *Journal of Academic Ethics*, 23(4), 2511–2535. <https://doi.org/10.1007/s10805-025-09663-7>
- Morrison-Love, D., & Patrick, F. (2025). UNDERSTANDING the challenge of developing pedagogical reasoning in initial teacher education: Theorising as practice-focused research. *British Educational Research Journal*, 51(4), 1904–1926. <https://doi.org/10.1002/berj.4167>
- Nadlir, Mukhlisah, Baihaqi, M., & Huda, H. (2025). Humanizing teacher education for madrasah contexts: A curriculum model integrating ethical reflection on socio-scientific issues. *Cogent Education*, 12(1), 2583513. <https://doi.org/10.1080/2331186X.2025.2583513>
- Nic Mhuirí, S., Kelly, D., Owens, E., & Howard, F. (2025). Ethical considerations in teacher reflection and research. *Irish Educational Studies*, 1–22. <https://doi.org/10.1080/03323315.2025.2479437>
- Nichol, D., Mulholland, K., Counihan, C., Meller, S., Anderson, A., Luke, C., & Gray, W. (2025). Back to basics: Pre-service teachers’ experiences of ‘SimulatEd’, a suite of low-technology simulated-scenarios to promote preparedness for professional practice. *Teaching and Teacher Education*, 164, 105089. <https://doi.org/10.1016/j.tate.2025.105089>
- Osiesi, M. P., & Blignaut, S. (2025). Impact of the teacher education curriculum on the development of 21st-Century skills: Pre-service teachers’ perceptions. *Social Sciences & Humanities Open*, 11, 101317. <https://doi.org/10.1016/j.ssaho.2025.101317>
- Pach, J., Stoffels, M., Schoonmade, L., Van Ingen, E., & Kusrkar, R. A. (2025). The impact of educational activities on professional identity formation in

- social sciences and humanities: A scoping review. *Educational Research Review*, 48, 100704. <https://doi.org/10.1016/j.edurev.2025.100704>
- Papouli, E. (2019). Aristotle's virtue ethics as a conceptual framework for the study and practice of social work in modern times. *European Journal of Social Work*, 22(6), 921–934. <https://doi.org/10.1080/13691457.2018.1461072>
- Parmaxi, A., & Zaphiris, P. (2020). Lessons learned from a design-based research implementation: A researcher's methodological account. *International Journal of Research & Method in Education*, 43(3), 257–270. <https://doi.org/10.1080/1743727X.2019.1671327>
- Pevec-Zimmer, S., Juang, L. P., & Schachner, M. K. (2024). Promoting Awareness and Self-Efficacy for Culturally Responsive Teaching of Pre-Service Teachers Through the *Identity Project* – a Mixed Methods Study. *Identity*, 24(4), 288–306. <https://doi.org/10.1080/15283488.2024.2344086>
- Pritchard, M. S., & Englehardt, E. E. (2024). Moral Education in the Virtues. In S. Fraser-Burgess, J. Heybach, & D. Metro-Roland (Eds.), *The Cambridge Handbook of Ethics and Education* (1st ed., pp. 145–165). Cambridge University Press. <https://doi.org/10.1017/9781009188128.011>
- Quinton, M. L., Shepherd, K. L., Cumming, J., Tidmarsh, G., Dauvermann, M. R., Griffiths, S. L., Reynard, S., Skeate, A., Fernandes, A., Choucair, T., Downs, J., Harrison Denning, K., McDonough, M. H., Mitchell, L., Rhind, D. J. A., & Tresadern, C. (2025). Best practices for supporting researchers' mental health in emotionally demanding research across academic and non-academic contexts. *International Journal of Qualitative Studies on Health and Well-Being*, 20(1), 2464380. <https://doi.org/10.1080/17482631.2025.2464380>
- Radanliev, P. (2025). AI Ethics: Integrating Transparency, Fairness, and Privacy in AI Development. *Applied Artificial Intelligence*, 39(1), 2463722. <https://doi.org/10.1080/08839514.2025.2463722>
- Reed, M. S., Ferré, M., Martin-Ortega, J., Blanche, R., Lawford-Rolfe, R., Dallimer, M., & Holden, J. (2021). Evaluating impact from research: A methodological framework. *Research Policy*, 50(4), 104147. <https://doi.org/10.1016/j.respol.2020.104147>
- Rozuel, C. (2012). Moral imagination and active imagination: Searching in the depths of the psyche. *Journal of Management Development*, 31(5), 488–

501. <https://doi.org/10.1108/02621711211226060>
- Rytzler, J., & Magnússon, G. (2025). Bildung, Didaktik, and the pedagogy of higher education. *Teaching in Higher Education*, 30(7), 1806–1818. <https://doi.org/10.1080/13562517.2025.2487776>
- Sakiman, J. B., & Yasin, M. (2023). Importance of Ethics of Education Management. *International Journal of Academic Research in Business and Social Sciences*, 13(12), Pages 4940–4951. <https://doi.org/10.6007/IJARBS/v13-i12/20343>
- Scoupe, R., Delnoij, L., & Beusaert, S. (2024). Reflective practice among pre-service teachers: The role of portfolios. *Educational Research*, 66(4), 429–447. <https://doi.org/10.1080/00131881.2024.2412642>
- Sheppick, C. (2024). Unveiling the benefits of reflective learning in professional legal practice. *International Journal of the Legal Profession*, 31(2), 207–221. <https://doi.org/10.1080/09695958.2024.2345924>
- Smit, B. H. J., Tigelaar, D. E. H., Berry, A. K., & Admiraal, W. F. (2024). Teacher educators' views on educating pre-service teachers for participatory action research in secondary schools. *Teaching and Teacher Education*, 141, 104460. <https://doi.org/10.1016/j.tate.2023.104460>
- Svaricek, R. (2024). Sceptical teacher and silent students: A case study of teacher changes during a teacher professional development programme. *Journal of Education for Teaching*, 50(2), 310–328. <https://doi.org/10.1080/02607476.2023.2296459>
- Tao, T., Balakrishnan, V., & Binti Kamaruddin, A. Y. (2025). Research on moral reasoning applicable to the education of pre-service teachers: A systematic literature review. *Cogent Education*, 12(1), 2554324. <https://doi.org/10.1080/2331186X.2025.2554324>
- Thornberg, R., Forsberg, C., Hammar Chiriac, E., & Bjereld, Y. (2022). Teacher–Student Relationship Quality and Student Engagement: A Sequential Explanatory Mixed-Methods Study. *Research Papers in Education*, 37(6), 840–859. <https://doi.org/10.1080/02671522.2020.1864772>
- Tirri, K., & Kuusisto, E. (2022). *Teachers' Professional Ethics: Theoretical Frameworks and Empirical Research from Finland*. BRILL. <https://doi.org/10.1163/9789004532649>
- Tobin, B., Farren, M., & Crotty, Y. (2024). Impacting teaching and learning through collaborative reflective practice. *Educational Action Research*, 1–

-
21. <https://doi.org/10.1080/09650792.2024.2394933>
- University of Wollongong, & Wotring, A. (2025). Contextualising dialogic teaching through educational design research: Evolving teaching principles with EFL teachers and students. *Teaching English as a Second or Foreign Language--TESL-EJ*, 28(4). <https://doi.org/10.55593/ej.28112a3>
- V. Sathasivam, R., Abdullah, M. N. S., & Abd Rauf, R. A. (2024). Theory-Practice Divide: Pre-service Teachers' Application of Pedagogical Knowledge During Teaching Practicum. *Pertanika Journal of Social Sciences and Humanities*, 32(1), 69–86. <https://doi.org/10.47836/pjssh.32.1.04>
- Verma, A., Singh, K., & Gupta, M. (2025). Ethical Dilemmas in the Classroom: A Narrative Approach to Professional Ethics in Indian Teacher Education. *International Journal of Educational Narratives*, 3(3), 274–284. <https://doi.org/10.70177/ijen.v3i3.2206>
- Vlachopoulos, D., & Makri, A. (2024). A systematic literature review on authentic assessment in higher education: Best practices for the development of 21st century skills, and policy considerations. *Studies in Educational Evaluation*, 83, 101425. <https://doi.org/10.1016/j.stueduc.2024.101425>
- Walker, Z., Kho, H. H., Tan, D., & Lim, N. (2020). Practicum teachers' use of mobile technology as measured by the technology acceptance model. *Asia Pacific Journal of Education*, 40(2), 230–246. <https://doi.org/10.1080/02188791.2019.1671808>
- Wiese, L. J., Patil, I., Schiff, D. S., & Magana, A. J. (2025). AI ethics education: A systematic literature review. *Computers and Education: Artificial Intelligence*, 8, 100405. <https://doi.org/10.1016/j.caeai.2025.100405>
- Winanjar Rahayu, Tazkiyah, E., Nurul Murtadho, & Slamet Arifin. (2023). The Role of Teacher Ethics in Developing Student Character in School. *Jurnal Ilmiah Sekolah Dasar*, 7(3), 546–557. <https://doi.org/10.23887/jisd.v7i3.55245>
- Xu, T., Gao, Q., Ge, X., & Lu, J. (2024). The relationship between social media and professional learning from the perspective of pre-service teachers: A survey. *Education and Information Technologies*, 29(2), 2067–2092. <https://doi.org/10.1007/s10639-023-11861-y>

- Xu, W., & Stahl, G. (2022). Reflexivity and cross-cultural education: A Foucauldian framework for becoming an ethical teacher-researcher. *Asia Pacific Education Review*, 23(3), 417–425. <https://doi.org/10.1007/s12564-021-09723-8>
- Yacek, D. W., Jonas, M. E., & Gary, K. H. (Eds.). (2023). Responses to Contemporary Moral Problems. In *Moral Education in the 21st Century* (1st ed., pp. 229–351). Cambridge University Press. <https://doi.org/10.1017/9781009170291.015>
- Yagata, K. (2018). *Bildung* as an essential disposition in becoming a reflective practitioner: Practical application of philosophical hermeneutics to second language teacher education. *Reflective Practice*, 19(3), 322–332. <https://doi.org/10.1080/14623943.2018.1437409>
- Yan, Y. (2025). The Role of the Teacher in Moral Education: Neutrality and Emotional Involvement. *Lecture Notes in Education Psychology and Public Media*, 79(1), 157–166. <https://doi.org/10.54254/2753-7048/2025.LC20537>
- Yin, S. X., Liu, Z., Goh, D. H.-L., Quek, C. L., & Chen, N. F. (2025). Scaling Up Collaborative Dialogue Analysis: An AI-driven Approach to Understanding Dialogue Patterns in Computational Thinking Education. *Proceedings of the 15th International Learning Analytics and Knowledge Conference*, 47–57. <https://doi.org/10.1145/3706468.3706474>
- Ying, J., & Jackson, L. (2025). Beyond dichotomy: Teachers' moral educational roles in changing China. *Journal of Education for Teaching*, 51(3), 451–464. <https://doi.org/10.1080/02607476.2025.2480075>
- Zahid, A., & Nawab, A. (2025). Teaching strategies influencing learning strategies: Exploration of teaching and learning practices in a higher education context in Pakistan. *Social Sciences & Humanities Open*, 11, 101442. <https://doi.org/10.1016/j.ssaho.2025.101442>