

The Role of Entrepreneurial Education in Enhancing Innovative Teaching Practices among Prospective Teachers

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ABSTRACT

The aim of the current study was to analyze the role of the entrepreneurial education to improve innovative teaching practices in the prospective teachers studying in B.Ed. (Hons) 4-Year program in the Department of Education, University of Poonch Rawalakot. Quantitative approach was used in this research, descriptive and correlational research design was used to gather data involving 120 prospective male and female teachers in the sample, by administering a questionnaire, with the questionnaire being designed in a structured manner. Levels of entrepreneurial education exposure, entrepreneurial competences, and innovative teaching practices were analyzed with the help of descriptive statistics, and the relationships between the variables and their predictive role among them were investigated with the help of the inferential statistics. It was found that prospective teachers had moderate to high exposure to entrepreneurial education and showed positive entrepreneurial skills especially in terms of being creative, recognizing opportunities and taking initiative. Findings also revealed that there are strong, positive and significant association between entrepreneurial education and innovative teaching practices. Regression analysis revealed that the entrepreneurial education and entrepreneurial competences were also of great predictors of innovative teaching practices. There were no notable differences in gender in innovative teaching practices. The paper finds that entrepreneurial education is a significant part of developing innovative teaching praxis in the introductory stage of teacher preparation and suggests their appropriate systematization in teacher education programs to equip prospective teachers with the chances to deal with the challenges of modern education.

Keywords: *Entrepreneurial education; Innovative teaching practices; Prospective teachers; Entrepreneurial competences; Teacher education*

INTRODUCTION

The fast change in technologies, intricate societal issues, and the increase in demands on creative, practically relevant, future-oriented learning are transforming the modern-day schooling. Innovative teaching in this regard is not necessarily referred to the use of new tools; rather, the term can also be applied to designing learner-centered experiences, practicing iteratively, and creating value to both students and communities with meaningful change. Recent reviews depict that the research on teacher innovation has grown rapidly and requires a more definite conceptual and methodologic foundation, which is an indication that innovation became a regular expectation of the profession but not an optional addition (S. Liu et al., 2024). The present research topic is a reaction to the mentioned change, as it will examine the ways entrepreneurial education, defined as knowledge of how to transform ideas into value, may reinforce innovative teaching in the context of potential teachers S. Liu et al., (2024). Teaching entrepreneurship has increasingly been established as an overarching system of education that aids entrepreneurship, initiative, and value-generating in life domains besides the business start-up activity. The most popular reference frame is the European Entrepreneurship Competence Framework (EntreComp) which models entrepreneurship as the ability to respond to opportunity and ideas and convert it to value to others Bacigalupo et al., (2016). More recent research has also gone back to EntreComp to discuss the definitions, development, and evaluation of entrepreneurial competences, both the soundness of the framework and the importance of ensuring that competence models are consistent with upcoming research and practice (Bernado & Bratzke, 2024).

This concept of positioning entrepreneurial education as a natural extension of teaching, in which teachers whenever identify need, formulate learning responses, and assess impact Bacigalupo et al., (2016). Innovative teaching practices tend to be a controversial topic within the field of teacher education since they are frequently addressed as the skills to create an engaging learning process, apply evidence to modify instruction, nurture creativity and problem solving in the students Hayat, Nudrut, and Shah, (2023). The work on systematic review in the field of teacher innovation suggests that the research further comes to understand innovation as a planned process including the idea generation-implementation-refinement process, although other gaps such as the inconsistent definitions and the scarcity of the theory-based explanations of how the process of teacher innovation evolves are also observed. This is important to future educators since it is during the early preparation that they develop their professional practices, ideologies and classroom practices. Provided that entrepreneurial education reinforces the opportunity recognition, exploration, and reflection-driven improvement, it can be a sufficiently principled approach to establishing innovation capabilities at the start of the professional path of a teacher. Entrepreneurial education too is strongly associated with the active pedagogies which are a reflection of real world problem solving. The review of studies on entrepreneurship education demonstrates that experiential learning methodologies, in which a student learns by doing, reflecting, and refining, are typically related to the formation of entrepreneurship skills and competences and the possibility to influence the intention to undertake actions and confidence (Motta and Galina, 2023).

All these aspects are similar to what teacher educators want to equip future teachers with in order to create the responsive lesson, test strategies throughout practicum, and improve learning based on student feedback. When we place entrepreneurial education as an experiential reflective learning trajectory, therefore, we are in line with the current perceptions of learning as practice-based and developmental (Motta & Galina, 2023). The creativity of self-efficacy and readiness to experiment under the conditions of uncertainty by teachers is also inherent in innovative teaching practices. Teacher education studies have also indicated that teachers can become more intelligent about creative teaching by participating in structured creative-development experiences which may also help them plan and improvise their teaching to better degrees (Simpson et al., 2022). It is particularly important due to explicit consideration of the entrepreneurial competence framework that encompasses such attributes as creativity, initiative, and

perseverance-traits that may allow teachers to survive in case of classroom complexity and the pressure of reforms (Bacigalupo et al., 2016). According to the overlap of creativity-oriented preparation of teachers and entrepreneurial development of competence, there is a strong theoretical interconnection in the case of the current study (Simpson et al., 2022). Another effective route to designing innovation-focused teaching was approaching design thinking in that it is focused on the empathy, ideation, prototyping, and fine-tuning. Teacher education evidence suggests that the design thinking intervention may have a positive impact on the innovative pedagogy by promoting the creative self-efficacy and inventive problem-solving skills of pre-service teachers that are the basis of creative thinking (X. Liu et al., 2024). Similar cycles of opportunity identification, idea generation, idea testing, and learning through error are typical of entrepreneurial education, and hence design thinking provides useful contact points between teacher innovation and entrepreneurship-centered learning (X. Liu et al., 2024). The research interest in this way fits into a bigger trend in the direction of an innovation approach to first-teacher training (X. Liu et al., 2024).

Another important motivator that determines innovative and entrepreneurial-oriented practices to be rooted is the views of prospective teachers. Beliefs affect the choice of instruction, exposure to experiment, and the interpretation of risk and uncertainty in classroom change processes among teachers (Gao and Qian, 2025). Latest studies on the attitude of preservice teachers toward creative and good teachers point out that the potential teachers increasingly appreciate the qualities of adaptability and creativity-related factors, which points to the willingness to become engagement-oriented practitioners at least on the perception level (Gao and Qian, 2025). Entrepreneur education can also be made to operationalize those beliefs in order to transform the "valuing creativity" into specific planning, execution, and reflection plans (Gao & Qian, 2025). On the policy and competence level, entrepreneurship is often positioned as one of the essential competences to lifelong learning and social activity, but not as an economic set of skills. The competence recommendation issued by the Council of the European Union ranks entrepreneurship among the other key competences with a focus on initiative, creating and making things happen (Council of the European Union, 2018). This generalization supports the thesis statement that entrepreneurship should not be considered peripheral in teacher education programs as teachers are primary facilitators of competence building based on curriculum implementation and pedagogy. A focus on entrepreneurial education as a part of teacher training is consequently consistent with competency-based education policies and the agendas behind creating the classrooms to support agency and innovation (Council of the European Union, 2018). Studies also indicate that entrepreneurial competence in education cannot necessarily be nurtured automatically and therefore, it requires pedagogy, institutional backing, and intentional training. According to the recent evidence related to the education-professional contexts, acquiring entrepreneurial competence using active methodologies of project-based learning, and of learning by doing is effective, but also the absence of strategic planning and collaboration can act as a limiting factor (Gracia-Zomeno et al., 2025). These lessons are directly inclined to future teachers, who should have both instructional models and enabling circumstances to safely practice the innovation. A study on the structure of entrepreneurial education during teacher training can thus shed light on what the real learning experiences should lead to innovative teaching behaviors (Gracia-Zomeno et al., 2025). The other reason why this subject matters is that, the subject of innovation can be rhetorically proclaimed but when it comes to actual institutions, it may be very hard to maintain. In a recent scoping review of the sustenance of teaching and learning innovations in higher learning, it was determined that engagement, collaboration, and enabling conditions are necessary to maintain innovations over the long term, and that tensions surround leadership, time, and resourcing (Bearman et al., 2024).

Supervision education has some of the same sustainability concerns: new pedagogies may emerge in the course work but disappear under the strain of practicum or first-year responsibilities. Entrepreneurial education can play a positive role by enhancing the agency, opportunity-seeking, and persistence capabilities of teachers, which help not only with attempting innovations, but also continuing and updating them in the long run (Bearman et al., 2024). The education of entrepreneurship sphere as an empirical area

of study has paid more and more attention to the formation of competence and measurability, which now makes it necessary to pay more attention to the question of how the entrepreneurial competences form and what influences it. Recent systematic literature review that reconsidered the topic of EntreComp emphasizes the issue of the learnability of entrepreneurial competences and also indicates the importance of psychological and contextual influences on competence formation (Bernado and Bratzke, 2024). This is significant to future teachers since their learning is heavily influenced by context, which can be mentor teachers, school culture, assessment requirement and placement opportunities. The current study can follow the examples of these findings and explore the area of entrepreneurial education as a competence-building process as it interacts with the teacher education environment and is not a content area. Methodologically, analyzing the place of entrepreneurial education in the innovative teaching involves paying close conceptual attention to what constitutes the innovative teaching practice and how it is distinguished out of such related concepts as creativity, compliance with reform, or adoption of technology. According to the teacher innovation review literature, there is a system of ambivalence and the desire to have more consistent frameworks that will help align antecedents, process, and outcomes of innovation in teaching (S. Liu et al., 2024). The measurement can be focused by referring to entrepreneurial competence frameworks that define such aspects as the identification of opportunity, initiative, planning, the mobilization of resources, and experience learning (Bacigalupo et al., 2016).

A combination of these points of view may enhance the way teacher educators define, observe and support innovation as a learnable professional competence (S. Liu et al., 2024). Pedagogically, entrepreneurial education often draws on projects, simulations and problem engagement, which is akin to the realistic, inquiry-based learning associated with innovative pedagogy. Practical evidence of systematic review regarding experiential learning in entrepreneurship education suggests a variety of experiential activities have different effects and issues, which can support the necessity to align pedagogy and the desired competence outcomes instead of presuming that any kind of activity can lead to learning Motta & Galina, (2023). To prepare teachers, it implies that the entrepreneurial learning experiences should be structured in a manner that relates explicitly to classroom practice: lesson design, assessment strategies, and reflective teaching cycles. Examining these design features can help understand what elements of entrepreneurial education can best be transferred into innovative teaching practices. Meanwhile, would-be teachers frequently have constraints that preclude experimentation including high-stakes evaluation, inflexible curricula, and lack of freedom during practicum. The studies of creative teaching development indicate that pre-service educators find safe spaces to experiment, get feedback, and develop as creative practitioners especially due to the element of risk and uncertainty which is inherent in creativity (Simpson et al., 2022).

Being carefully integrated, entrepreneurial education can offer systematic risk-taking and self-improvement that can be constantly reinforced by failure- something that is indispensable in innovative instruction. This research thus has a practical implication in the form of the design of teacher training experiences that enable innovation instead of just being aspirational. The introduction into this research is on the basis of the argument that entrepreneurial education can be a sensible competency-based route of enhancing innovative teaching among the future teachers. Recent literature highlights the importance of systemic entrepreneurial competence development as opposed to ad hoc efforts, and active approaches and educator training are the primacy of the implementation quality. In the meantime, the research on teacher innovation underlines the fact that more coherent schemes and well-grounded descriptions of the innovation creation and maintenance process are necessary (S. Liu et al., 2024). By uniting these strands, the research at hand should supplement their understanding of the role entrepreneurial education may play in influencing the innovative teacher practice of the prospective teachers and the nature of program features and learning conditions that can optimally maximize these roles (Gracia-Zomeno et al., 2025).

Statement of Problem

Although expectations of teachers to be creative, adaptive and have innovative teaching practices are on the rise, research has indicated that most would-be teachers leave their original training with little skills to translate such expectations into functional classroom practice. According to research, despite the broad focus on innovation as a research topic and all its corresponding innovations being the subject of attention in the discourse of educational policy and teacher education, pre-service teachers are not actually provided with organized opportunities to become innovation-learned in their preparation programs Liu et al., (2024). Consequently, creative pedagogical practices are not developed in a consistent manner and often distinguished as hypothetical than implemented, as one of the factors that create a gap between the requirements of the modern classroom and the practical skills of freshly graduated educators (Bearman et al., 2024).

The entrepreneurial education provides a competence-based and experiential method which is close to the skills needed to teach innovation, but the role of entrepreneurial education in teacher education has not been adequately studied. Although theories, including EntreComp, conceptualize entrepreneurial competence as something that can be taught and transferred between professional settings, little empirical data is available to reveal the impact of entrepreneurial education on the formation of innovative teaching experiences in pre-service teachers (Bacigalupo et al., 2016; Bernado and Bratzke, 2024). Such ambiguity does not allow teacher education institutions to implement entrepreneurial learning in their curriculum and think critically about pedagogical change. As a result, systematized studies are required to explore the role of entrepreneurship training in enhancing the innovative teaching methods of the employees at the initial phase of the teacher education (Motta & Galina, 2023; Gracia-Zomeno et al., 2025).

Rationale of the Study

The increasing rate of learning change caused by both digital transformation and complexities in society, as well as, by the changing needs of the learners, has contributed to the increased demands on teachers to implement creative as well as responsive methods of teaching. According to the recent studies, one of the issues that prompt future teachers is that even at the first stage of teacher training, they may experience the lack of innovation-driven pedagogical practices since the programme, nevertheless, still prioritize traditional methods of teaching over creativity, experimentation, and problem solving (OECD, 2023; Liu et al., 2024). Research also indicates that, without a deliberate effort towards innovation pre-service educators might not create stimulating, learner-oriented settings and adapt successfully to uncertain and dynamic classroom situations (Gao & Qian, 2025). The findings support the necessity of specific educational strategies that may generate innovative teaching skills at the pre-service level.

In recent scholarship, entrepreneurial education has received a new impetus as a disciplinary hybrid that can help to become creative, initiative, flexible, and value-forming, i.e. competences well-related to innovative instruction. According to recent systematic reviews, innovation-related outcomes are supported with the help of entrepreneurial learning strategies, especially those based on the experiential and competence-based pedagogy, in the context of professional education (Nabi et al., 2023; Bernado and Bratzke, 2024). Nonetheless, there is little empirical research on the underlying role of entrepreneurial education in connection to the innovative aspects of teaching among potential teachers (Gracia-Zomeno et al., 2025). The current research is justified according to this gap therefore to fill in the current body of up-to-date evidence on the pedagogical applicability of entrepreneurial education in teacher preparation, in order to impact curriculum design, instructional approaches and policy initiatives to prepare innovation-ready teachers to meet the demands of modern and future educational environments.

Objective of Study

1. To examine the role of entrepreneurial education in enhancing innovative teaching practices among prospective teachers.
2. To identify the key entrepreneurial competences that support the development of innovative teaching practices in prospective teachers.

Research Questions

1. What is the role of entrepreneurial education in enhancing innovative teaching practices among prospective teachers?
2. Which entrepreneurial competences are most strongly associated with the development of innovative teaching practices among prospective teachers?

Significance of the Study

The research is important in the sense that it will help to better comprehend how innovative teaching can be nurtured at its early phases of preparation against teachers. Though the topic of innovation is being heavily promoted in modern education, future teachers tend to be offered little formal assistance so as to acquire the ability to design and deploy innovative teaching. Through the study of entrepreneurial education as a developmental process, the research will cover a significant gap in teacher education literature, and the researchers will provide a fresh view on how future teachers can be prepared to work with dynamic classrooms with their complexity. The results of this research have practical implications to the teacher education institutions and teacher educators.

The study can be used to inform curriculum design and teaching and learning methods that facilitate innovation-based teaching by establishing the connection between entrepreneurial education and creativity, initiative, and problem-solving in future educators. This could be helpful in ensuring that teacher educators incorporate experiential and competence based learning models that are more efficient in equipping the pre-service teacher to effectively address the needs of various learners and evolving educational demands. Significance of the study regarding educational policy and future research is also present.

The knowledge gained through this study may be used in evidence-based conclusions about how entrepreneurial education may be incorporated into teacher education. Moreover, the paper establishes a base into subsequent empirical studies in elucidating key concepts and interrelation between entrepreneurial education and innovative teaching practice, as it can further the current formation of innovation-based teacher education models.

REVIEW OF LITERATURE

The Concept of Entrepreneurial Education

Entrepreneurial education has recently a radical conceptual change in the last few decades and is no longer associated with such areas as business start-ups and venture generation. Modern researchers are gradually shifting to entrepreneurial education as a career-building process that facilitates opportunities recognition and innovative concepts, value creation in various social, cultural, and professional settings (Bacigalupo et al., 2016). The extended definition brings entrepreneurship to life as a competence skill without necessarily being an actual economic undertaking. In education systems, such a change has enabled entrepreneurial

education to be incorporated in both general and professional education such as teacher education. Consequently, entrepreneurial education has become generally considered as a competency-driven strategy that facilitates flexible, inventive, and proactive behavior in unpredictable contexts (OECD, 2019).

One of the major characteristics of entrepreneurial education is the emphasis on competence development but not on content delivery. Competence based models lay more emphasis on knowledge, skills and attitudes that position learners so that they are able to be effective in real life scenarios. The EntreComp model, e.g., defines entrepreneurial competence in terms of interdependent dimensions, i.e., opportunity recognition, resource mobilization, and action orientation (Bacigalupo et al., 2016). Such a solution is an indication of a shift towards a conventional curriculum, which puts more emphasis on memorized facts rather than skills. According to the scholars, this competence-oriented learning is especially topical in modern day education, where learners have to constantly evolve in accordance with the alterations in social and professional requirements (Fayolle & Gailly, 2015). Entrepreneurial education thus facilitates the all round learner education as opposed to occupation-focused learning.

Experiential learning has been generally acknowledged as one of the revolutionary pedagogical principles of entrepreneurial learning. It has always been scientifically proven that active involvement, trial, and error were the most effective approaches to learning entrepreneurship (Kolb, 2015). As strategies that allow considerable amount of experience, project-based learning, simulations, problem-based tasks, and working on real-world challenges can be listed. These methods enable the learners to experiment with ideas, learn by error and perfect solutions by trial and error. Researchers underline that experiential learning can be used to narrow the divide between theory and practice, which additionally makes the entrepreneurial education more authentic and meaningful (Motta & Galina, 2023). Therefore, experiential pedagogy has now become one of the staples of modern entrepreneurial education.

Creativity and innovation is another characteristic feature of entrepreneurial learning. Creativity has been perceived as the capability to come up with new and useful ideas whereas innovation is the actual application of these ideas. Entrepreneurial education explicitly develops the two processes by prompting learners to challenge assumptions, to explore options, and to develop unique solutions (Nabi et al., 2017). The given focus also is associated with wider learning objectives that emphasize the development of higher-order thinking skills and learner agency. The studies suggest that creativity may be trained as a structured learning experience, instead of being perceived as an inborn ability (Simpson et al., 2022). Entrepreneurial education does thus offer an organized platform of fostering creative thinking across subject areas.

Another key construct of the conceptualization of entrepreneurial education is self-efficacy and agency. The term self-efficacy is used to denote the belief that people have when it comes to their potential to accomplish certain tasks effectively and it is a very important factor in entrepreneurial action (Bandura, 1997). Entrepreneurship teaching increases self-efficacy through the learners being placed in problems where they make decisions, uncertainty, and take responsibility of the outcomes. The research findings indicate that learners undergoing entrepreneurial education invest more confidence, initiative, and resilience (Nabi et al., 2017). These psychological qualities are the ones that dominate in the continued interaction in the innovative and entrepreneurial pursuits. In this regard, entrepreneurial education, therefore, not only facilitates acquisition of skills but also personal empowerment.

Additional assessment practices in the field of entrepreneurial education are also indicative of conceptual orientation on the premise of learning as a process of development. Conventional summative tests are usually said to be inadequate in measurement of subtle entrepreneurial abilities. Researchers are in support of formative, reflective, and performance-based assessment model that is responsive to the principle of experience-based learning (Hmama, 2025). Some examples are portfolios, reflective journals, peer assessment and project evaluations. These types of assessments pay attention to the learning progress and

self-reflection problems, as opposed to formal performance indicators. Entrepreneurial education has this dimension of assessment therefore supports its orientation towards sustained improvement and development of competence.

Entrepreneurial education is becoming more of an integrated and an interdisciplinary methodology as opposed to a separate course. Incorporating entrepreneurship into curricula enables students to make use of the entrepreneurial thinking in a specific one-disciplinary scenario (Hadley, 2025). This method facilitates the growth of transferable competence coupled with retain of discipline. According to scholars, embedded entrepreneurship makes it less resistance as it proves the applicability of entrepreneurial competence to various professional domains. It also promotes the perception of entrepreneurship by learners as an act of thinking and behaving as opposed to a branch of knowledge. This integrative point of view became prominent in the policy and scholarly discourse.

Policy wise, it is acknowledged that entrepreneurial education is one of the driving forces of innovation, employability and social development. Entrepreneurship is considered by international organizations as a key competence to deal with complexity and change in contemporary societies (OECD, 2019). Educational policy structures are becoming more inviting to entrepreneurial learning models that will stimulate creativity, adaptability and lifelong learning. It is this policy identification that has led to institutionalization of entrepreneurial education at educational levels. The literature as a whole conceptualizes entrepreneurial education as an active, competence-based, experiential process that helps equip the learner with the skills required to generate value and effectively react to uncertainty.

Theoretical Foundations of Entrepreneurial Education

Entrepreneurial education has strong foundations on existing educational theories in the development of entrepreneurial skills in learners that goes way beyond the creation of businesses to expansive benefits to a wide raft of portable skills. Modern studies stress the importance of entrepreneurial education developing the critical aspects like creativity, self-efficacy, ability to take risks, and innovativeness, highlighting it as a pedagogical process, but not as vocational training in the first place (Branca et al., 2025). The proposed theoretical stance is also an indication of a change towards perceiving entrepreneurship as a skill that cuts across various professional fields such as education, management, and public policy (Branca et al., 2025).

Experiential learning theory is one of the most widespread theoretical bases of entrepreneurial education. Experiential techniques place the learners in the status of active, lifelong learners where they learn by doing, reflecting, and applying the insights to real-world problems, which has been proven to be one of the most effective methods to develop the entrepreneurial skills (Branca et al., 2025; Motta and Galina, 2023). Experience learning refers to repetitive action and reflection which allows a learner to learn by doing, instead of learning passively. Systematic reviews that have been conducted recently reveal that experiential and active learning techniques are more efficient in developing such aspects of entrepreneurial mindset as creativity and risk-taking propensity opposed to traditional instruction (Branca et al., 2025; Motta and Galina, 2023).

One more important theoretical foundation in the understanding of entrepreneurial education outcomes is offered by the social cognitive theory, especially the social efficacy theory. Entrepreneurial self-efficacy (ESE) also denotes the belief that individuals have in their ability to effectively undertake entrepreneurial activities, and that it is also a strong mediator between the educational experiences and entrepreneur intentions (Antoncic and Mansingh, 2025; Branca et al., 2025). According to the research results in the contemporary context, entrepreneurial education is associated with ESE and thus proactive behavior and resilience in multifaceted environments (Antoncic & Mansingh, 2025). This conceptual approach

emphasizes the psychological processes by which entrepreneurship education inspires and empowers trainees.

The competence-based education theory also forms significant role in influencing the theoretical basis of entrepreneurial education. Competence based methods emphasize on the learning of integrated knowledge, skills and attitudes of the learning ability which students can use in their practical lives (Duval-Couetil, 2013 as cited in recent literature). The recent academic reviews are in line with this assertion, and the competencies addressed in entrepreneurial education should be based on the ability to identify and capitalize on opportunities, a critical and overly analytic mindset, and resource mobilization, which are capabilities and strategic approaches aligned with the learning objectives within a larger educational purpose (Branca et al., 2025; Motta and Galina, 2023). This framing is one of the reasons entrepreneurial learning is now becoming integrated into various curricula.

The theory of transformative learning also aids in the thinking of entrepreneurial education by describing how profound modifications take place at the cognitive and affective levels through critical reflections within the experience. Research conducted into the entrepreneurial pedagogy demonstrates that transformative learning experiences enable learners to rehabilitate their assumptions related to risk, failure, and creativity, which results in lasting shifts in orientation and identity (Recent interdisciplinary design research, 2025). This theoretical framework is very applicable in both professional and advanced education settings where entrepreneurial endeavors occur to cultivate lifelong education and flexibility.

The entrepreneurial education is also based on the constructivist learning theory, which assumes that the knowledge is developed by the actively-involved and socially-interactive engagement of learners. Entrepreneurial problem addressing, collaborative, and meaning making tasks correspond to constructivist ideals and thus the learning becomes more situational and self relevant. According to recent high-impact studies on entrepreneurial pedagogies, constructivist strategies play a core role in inspiring critical thinking and independence to learners in multi-faceted problem spaces.

The opportunity-based theories of entrepreneurship are relevant in the curriculum design because these models are used to understand the nature of how people both recognize and capitalize on opportunities which is a fundamental process in entrepreneurial training. The modern reviews indicate that high-quality entrepreneurial programs provide structured chances to their students to explore new opportunities and implement solutions, which strengthens the theoretical connection between entrepreneurial thinking and education design (Branca et al., 2025). This model helps in reinforcing the emphasis of competency development on the real life conditions instead of abstract teaching.

Pedagogical innovation theory is also incorporated in the recent literature that describes the process of interlinking entrepreneurial education with other systems of learning in general. Put differently, innovative pedagogies focus on student-cantered, active, and reflective learning practices, which can meet the objective of entrepreneurial education in building agency and problem solving (Branca et al., 2025). These are the theoretical links as to why learning about entrepreneurial education is gaining more and more support as a mechanism to equip the learners to negotiate uncertainty and complexity in the workplace.

Lastly, recent theoretical integration involves the need to incorporate various theoretical approaches when gaining knowledge about entrepreneurial education. The current literature on entrepreneurial education indicates that the existing studies adopt experiential learning, self-efficacy, competence development, and innovation theories and incorporate them into developing complete models of entrepreneurial learning (Tunca and Balcioglu, 2025). This theoretical direction of integration highlights the role of multidisciplinary approach to entrepreneurial learning and its relevance in various levels of education, such as in teacher education.

Current Practices for Entrepreneurial Education and Their Implementation

Present-day entrepreneurial education is also becoming more competence-oriented, viewing entrepreneurship as a portable skill (e.g. creativity, initiative, ability to recognize opportunities, and value creation) rather than simply training on how to start-up. Recent synthesis efforts have postulated that entrepreneurship education is being transformed to align more with the uncertainty of society as well as the digital transformation and employability requirements, accelerating the uptake of active, applied pedagogies in academic institutions (Passarelli & Bongiorno, 2025). Recent systematic review outcomes also suggest that programs are now being planned through psychological and behavioural outcomes including; self-efficacy, innovativeness, creativity, and comfort with risk, learning strategies are chosen to achieve these outcomes (Branca et al., 2025). Practical use of it is inclined towards teaching models that enable students to exercise agency, choice, and cyclical refinement. It is an indication of movement toward less content-driven entrepreneurship courses that focus on learning designs that replicate actual entrepreneurship. This shift is enforced by competence frameworks and policy tools that legitimize entrepreneurship as a central and critical competence and under land mainstreaming at levels, in many systems.

One prevailing trend is the application of experiential and active learning designs including project based work, community/ industry and industry challenge, prototyping work and venture/non- venture problem solving. A systematic review of the existing literature on experiential learning in entrepreneurship education provides an overview of the proves that learning by doing is a core logic of instruction and that implementation is commonly considered to be based on authentic tasks, reflection, and cycles instead of linear teaching (Motta and Galina, 2023). A more recent evidence-based synthesis also indicates that experiential and active learning methods are especially linked with a power in enhancing creativity and innovativeness relative to conventional ones (Branca et al., 2025). More recent theoretical research suggests using a systematized form of experience models including the incorporation of action learning with design learning to bring more clarity to educator applying experiential entrepreneurship pedagogy (Nzembayie et al., 2024). At the level of implementation, this implies an even greater shift among entrepreneurship educators toward the creation of learning in the form of a series of action-feedback-revision cycles. The implementation programs of these models generally need the facilitation capacity, the time to revolutionize, and the evaluation plans that acknowledge learning of the process rather than the final results.

The second approach that is common is the adoption of systematic innovation processes within the field of entrepreneurship education, in particular design thinking and lean start-up. Comparative scholarship identifies the fact that lean start-up and design thinking are widely applied to develop practical skills in collaboration, customer/user orientation, iterative development, and practical project management and are therefore desirable as a form of entrepreneurship delivery (Khan and Iqbal, 2024). Syntheses of the elements of design thinking in entrepreneurship education also highlight its usefulness as a teaching-learning strategy that promotes empathic framing of problems, ideation, prototyping and testing, all of which are aligned with competency-based entrepreneurship results (Hagg and Gabrielsson, 2023). These approaches are frequently conveyed in implementation using the format of workshops, studio-based courses, and vineyard sprint projects in which students are required to create prototypes and provide evidence-based decisions. The practical connotation is that the education of entrepreneurship tends to become more of an innovation lab than an ordinary classroom. Nevertheless, the quality of the implementation is determined by the level of teacher knowledge on the approaches and institutional readiness to dedicate time, resources and flexibility in evaluation.

Integrating entrepreneurship is also a recent trend, particularly in cases where institution may desire entrepreneurship education to be extended to all learners as opposed to business students only. The most recent efforts at embedded entrepreneurship pedagogy suggest specific classroom activities that can be

implemented in any course area as a result of curricular planning and cross-curricular design, providing further evidence of the idea that the subject of entrepreneurship can be taught as a thinking and behaviour in the disciplinary learning process (Hadley, 2025). Implementation research also indicates an increasing interest in training educators to be able to internalize entrepreneurial aspects into their respective teaching even in areas where entrepreneurship may not seem to be inherently supportive (Falkang et al., 2025). Embedded approaches in practice frequently incorporate problems and real-life situations that are related to the discipline in order that entrepreneurial learning will not be viewed as a supplement. The model is exceptionally doable when the educators can acquire professional development and case studies of how the entrepreneurial competences correspond with the learning outcomes of their courses. Assuring coherence is the most stable mentioned in the literature implementation challenge: embedded entrepreneurship presupposes alignment among the learning outcomes, learning activities, and assessment as opposed to individual ones (Hadley, 2025; Falkang et al., 2025).

Another field in which modern entrepreneurship education is transforming greatly is assessment practice, as traditional tests typically do not present challenging development of entrepreneurial competencies. Recent studies suggest the concept of assessment as pedagogy, where the multi-assessment models integrate reflective evidence, observation and competence frameworks to monitor the progress of a process of entrepreneurial learning over time (Hmama, 2025). In entrepreneurship studies evaluation, there is related work that suggests the multi-layered models that require focusing on the developmental processes and continuous feedback in contrast to measuring only once (Hindle and Klyver, 2025). Portfolios, reflective journals and peer or mentor comments, prototypes, pitches and evidence of iteration are becoming more commonly used as assessment artefacts. Case-based scholarship also reports that such designs have the potential to enhance the engagement and decrease the involvement with misconduct and decrease the lack of correspondence of entrepreneurial learning and assessment (Alam et al., 2024). The implementation aspects which are necessary to affect the change to actual and multi-method assessment are clear rubrics, skilled assessors, and institutional recognition that process and learning evidence can be valid indicators of accomplishment.

Nowadays educator capacity-building is seen as a key to successful implementation of entrepreneurial education, in particular, when the experiential and embedded model is adopted. It has been shown that the quality of implementation is based on the capacity of the teachers and lecturers to ensure uncertainty, group dynamics, coach cycle, and competence assessment development as opposed to an exclusive focus on content memory (Falkang et al., 2025; Motta and Galina, 2023). The education of entrepreneurship at school level is also a significant issue to which European system-level mapping reflects the meaning of teacher preparation and support infrastructure, which shows that its implementation varies considerably according to training and school-level curricular integration provisions (Eurydice, 2025). Further evidence on professional learning has suggested that lasting change in practice of teaching actually often involves long-term improvement and not one training experience, which supports the argument that teaching about entrepreneurship needs to be supported at the ongoing basis (OECD, n.d.). Practically, it is thought to be successfully implemented by having professional development workshops, educator communities of practice, shared teaching resources, and new instructor mentorship. In the absence of such supports, programs can easily institute entrepreneurship education, but as individual actions and not as consistent competence building.

A second recent trend is to enhance the education of entrepreneurship by institutional ecosystems, networks of partners, and infrastructure--including incubators, mentorship, and industry/community organization. According to recent studies, the educational practices of entrepreneurship can have broader ecosystem processes of the university that may affect the entrepreneurial activities of the graduates and thus learning and studies are not confined to the classroom but have access to networks and support systems (Guerrero et al., 2025). The other related literature on university entrepreneurial ecosystems covers the significance

of resources, networks, and support services and ties to entrepreneurship education programs (Hosseini and Sarpong, 2024). Models used to implement the idea typically include mentoring, guest entrepreneur, internships, challenge based projects with external partners and incubation of student ideas. Studies on entrepreneurial aspects of universities and digital transformation also support the notion that institutional frameworks and ecosystem alignment contribute to the manner in which the education of entrepreneurship is converted into results (Saiz-Alvarez et al., 2023). In practice, ecosystem-based entrepreneurship education models in institutions will also provide a greater amount of richer experiential learning, yet will also encounter issues with coordination and equity in the case of unequal access to such learning opportunities.

Another key area of contemporary practice is that of enhancing inclusivity and solving barriers to implementation in the forms of inequality in the access, irregular participation or cultural or institutional constraints. The studies on inclusiveness in delivering entrepreneurship education focus on the fact that, to offer globally, the new and innovative entrepreneurship education must consider the consideration of such issues as those who should have access to the programs, how such programs should be designed to suit different learners, and whether some groups are excluded in terms of participation possibilities (Hatt et al., 2024). Viewed in the framework of system-level reviews, the process of restructuring entrepreneurship education to resolve its fragmentation, as well as to enhance the coherence both among micro-level pedagogy and macro-level institutional policy, also has a direct relationship with quality of implementation (Passarelli and Bongiorno, 2025). Implementation wise, the inclusivity would entail deliberate recruitment, enabling learning conditions, adaptive appraisal, and valuation of various types of value creation (not necessarily commercial undertakings). Experience learning reviews also observe that the implementation may be limited due to resource needs, teacher preparation, and the challenge of assessing competence development, which is distressingly overrepresented by support-heavy institutions (Motta and Galina, 2023). On balance, existing practice tends to shift towards stronger, competence-adjusted and inclusive application, yet it continues to be proven every time that institutional circumstances, teacher capability and alignment of assessment determine the outcomes.

RESEARCH METHODOLOGY

Research Design

In the current study, a quantitative research design was used and the correlational research design was taken to understand the importance of entrepreneurial education in developing the innovative teaching among the prospective teachers. This methodology was found suitable since it will allow gathering numerical data systematically and allows exploring relationships between well-defined variables. The purpose of the study was to establish the level, to which entrepreneurial education relates to innovative teaching practices without control in the variables to capture the natural nature of education teaching among potential teaching practitioners.

Population of the Study

The study population was made of male and female future teachers pursuing the degree course in the University of Poonch Rawalakot, Department of Education. The choice of these prospective teachers is due to the fact that they are on formal teacher preparation and that this is a crucial phase in the development of a professional pattern where beliefs and attitudes and innovative practices are constructed part of pedagogy. The target population helped the study to focus on real perceptions and experiences associated with entrepreneurial education and creative instructions in the actual institutional context.

Sampling Technique and Sample Size

A study population of 120 prospective teachers was obtained out of this population using simple random sampling technique. The sample was divided into male and female samples, and gender balance was ambient to population distribution thus, 80 percent of the sample belonged to females who are prospective teachers but the rest of the members were male. A proper sampling method has been applied to allow the sample to be representative of the population and to have sufficient coverage of both sexes. The sample size was felt enough to carry out a statistical analysis and come to sound conclusions pertaining to the objectives of the study.

Research Instrument

The study data were gathered by use of a structured questionnaire which was designed to correspond with the objectives of the research. The scale consisted of two large sections consisting of items that are related to entrepreneurial education and items that can be used to gauge innovative instructional practices. The responses of the respondents were also registered in a Likert type scale, which enabled a quantitative analysis of the attitudes and perceptions of respondents.

Validity and Reliability

The questionnaire was pretested by the experts of the educational and research methodology field so as to maintain the content validity. Their recommendations were used so as to enhance clarity, relevance, and completeness of the items. The measure of reliability of the instrument was evaluated by a pilot study on a small sample of parents that were not taken up in the end sample. Cronbach alpha was used to determine the reliability and the instrument was identified to be reliable in collecting data.

Data Collection

The data collection was conducted in a quite orderly and ethical way. The respective academic authorities were consulted and the administration of the questionnaire was done with their formal permission. Respondents were informed of the objectives of the research and their consent got to participate in this research was voluntary. They also were told that their responses would stay confidential, and they would be used as a result of the research purposes. It is a strategy that assisted in establishment of a comfortable environment that promoted truthful and precise responses. Upon collection of data, systematic codification of the responses was conducted with the responses being entered into statistical software to undergo analysis.

Data Analysis

Present study were employed frequency, percentages, means, and standard deviation as descriptive statistical methods, which were used to summarize characteristics of the data and describe the levels of entrepreneurial education and innovative learning activities among the future teachers. To analyze the relational aspects of the study, the inferential statistical methods, such as the correlation analysis and regression analysis were used to determine the strength and the nature of the relationship between the study variables.

Ethical Considerations

Ethical considerations were considered of high priority throughout the research process. The participants were informed about their involvement in the ranks of the study and were assured anonymity through the

absence of gathering any other factors that can identify them, and all the materials were held in the strictest confidence. These ethics safeguards made sure that the research followed accepted research ethics and that the study treated the rights and dignity of the concerned parties with the necessary respect.

RESULTS

This chapter presents the results of the study conducted to examine the role of entrepreneurial education in enhancing innovative teaching practices among prospective teachers enrolled in the B.Ed. (Hons) 4-Year program at the Department of Education, University of Poonch Rawalakot. Descriptive and inferential statistical techniques were applied. Each table is presented first, followed by its explanation.

Table 1: Demographic Characteristics of the Respondents (N = 120)

| Variable | Category | Frequency | Percentage |
|----------|---------------------|-----------|------------|
| Gender | Male | 24 | 20.0 |
| | Female | 96 | 80.0 |
| Semester | 1st | 30 | 25.0 |
| | 3rd | 30 | 25.0 |
| | 5th | 30 | 25.0 |
| | 7th | 30 | 25.0 |
| Program | B.Ed. (Hons) 4-Year | 120 | 100.0 |

Table 1 presents the demographic characteristics of the respondents (N = 120). The sample consisted of 24 male prospective teachers (20%) and 96 female prospective teachers (80%), indicating female dominance in enrollment within the Department of Education. Respondents were equally distributed across the 1st, 3rd, 5th, and 7th semesters, with 30 participants (25%) from each semester. All respondents were enrolled in the B.Ed. (Hons) 4-Year program, representing 100% of the sample. This equal semester-wise distribution ensures balanced representation of prospective teachers at different stages of professional development. The demographic profile confirms that the sample is representative of the target population and appropriate for examining entrepreneurial education and innovative teaching practices.

Table 2: Descriptive Statistics of Entrepreneurial Education Exposure

| Item | Statement | Mean | SD |
|------|--------------------------------------|------|------|
| EEE1 | Initiative and leadership encouraged | 3.89 | 0.76 |
| EEE2 | Real-life problem identification | 3.86 | 0.79 |
| EEE3 | Project-based learning | 3.74 | 0.82 |
| EEE4 | Independent thinking encouraged | 4.00 | 0.71 |
| EEE5 | Planning and proposal tasks | 3.67 | 0.84 |
| EEE6 | Task and time management | 3.83 | 0.77 |

| | | | |
|---------|------------------------------------|------|------|
| EEE7 | Teamwork and collaboration | 4.08 | 0.68 |
| EEE8 | Responsibility for outcomes | 3.95 | 0.73 |
| Overall | Entrepreneurial Education Exposure | 3.88 | 0.61 |

Table 2 presents the descriptive statistics related to entrepreneurial education exposure among prospective teachers enrolled in the B.Ed. (Hons) 4-Year program. The overall mean score for entrepreneurial education exposure was $M = 3.88$ with $SD = 0.61$, indicating that prospective teachers experienced a moderate to high level of entrepreneurial learning within their teacher education program. Among the individual indicators, teamwork and collaboration recorded the highest mean score ($M = 4.08$, $SD = 0.68$), suggesting that cooperative learning and group-based tasks are strongly emphasized. Encouragement of independent thinking also showed a high mean ($M = 4.00$, $SD = 0.71$), reflecting an instructional environment that promotes autonomy and idea generation.

Responsibility for learning outcomes recorded a mean score of $M = 3.95$, $SD = 0.73$, indicating that prospective teachers are frequently encouraged to take ownership of their academic tasks and learning processes. Initiative and leadership-related activities also showed positive perceptions ($M = 3.89$, $SD = 0.76$), highlighting the presence of opportunities that foster confidence and leadership skills. Identification of real-life problems achieved a mean of $M = 3.86$, $SD = 0.79$, suggesting that problem-based learning is moderately integrated into coursework.

In contrast, project-based learning activities recorded a comparatively lower mean ($M = 3.74$, $SD = 0.82$), indicating that such activities may not be implemented consistently across courses. Planning and proposal-related tasks showed the lowest mean score ($M = 3.67$, $SD = 0.84$), suggesting limited structured opportunities for developing entrepreneurial planning skills. Despite these variations, the relatively low standard deviations across items indicate consistency in respondents' experiences. Overall, the results suggest that while entrepreneurial education is meaningfully embedded within the program, there is scope for enhancing experiential and planning-oriented entrepreneurial learning to further strengthen innovative teaching practices.

Table 3: Entrepreneurial Competences of Prospective Teachers

| Competence Area | Mean | SD |
|--|------|------|
| Creativity and Opportunity Recognition | 3.93 | 0.65 |
| Initiative and Proactiveness | 3.86 | 0.69 |
| Planning and Resource Management | 3.80 | 0.71 |
| Risk-Taking and Resilience | 3.58 | 0.74 |
| Overall Entrepreneurial Competence | 3.79 | 0.62 |

Table 3 presents the descriptive statistics related to the entrepreneurial competences of prospective teachers enrolled in the B.Ed. (Hons) 4-Year program. The overall mean score for entrepreneurial competences was $M = 3.79$ with $SD = 0.62$, indicating that prospective teachers generally perceived themselves as possessing a positive level of entrepreneurial competence. Among the competence areas, creativity and opportunity recognition recorded the highest mean score ($M = 3.93$, $SD = 0.65$), suggesting that respondents felt confident in generating new ideas and identifying opportunities to improve teaching and learning processes.

Initiative and pro activeness also showed a relatively high mean ($M = 3.86$, $SD = 0.69$), indicating that prospective teachers perceived themselves as willing to take action, initiate tasks, and engage actively in academic and instructional activities. Planning and resource management recorded a moderately high mean score ($M = 3.80$, $SD = 0.71$), reflecting developing skills in organizing tasks, managing time, and utilizing available resources effectively. These competences are particularly relevant for designing innovative lessons and managing classroom activities efficiently.

In contrast, risk-taking and resilience recorded the lowest mean score among the competence areas ($M = 3.58$, $SD = 0.74$), suggesting that prospective teachers were comparatively less comfortable experimenting with new ideas under uncertain conditions or dealing with failure. This finding indicates a potential need for teacher education programs to provide more supportive environments for safe experimentation and learning from mistakes. The relatively low standard deviation values across all competence areas indicate consistency in respondents' perceptions. Overall, the findings demonstrate that prospective teachers possess a solid foundation of entrepreneurial competences, which can be further strengthened to support sustained innovative teaching practices.

Table 4: Innovative Teaching Practices

| Teaching Dimension | Mean | SD |
|---------------------------------------|------|------|
| Creative Instructional Design | 3.90 | 0.67 |
| Student-Centered Teaching | 4.02 | 0.63 |
| Use of Technology and Resources | 3.72 | 0.75 |
| Reflective and Adaptive Teaching | 3.96 | 0.66 |
| Overall Innovative Teaching Practices | 3.90 | 0.59 |

Table 4 presents the descriptive statistics related to innovative teaching practices among prospective teachers. The overall mean score ($M = 3.90$, $SD = 0.59$) indicates a positive inclination toward innovative teaching approaches. Student-centered teaching recorded the highest mean ($M = 4.02$, $SD = 0.63$), showing strong emphasis on learner engagement and active participation. Reflective and adaptive teaching also demonstrated a high mean ($M = 3.96$, $SD = 0.66$), suggesting continuous improvement in instructional practices. Creative instructional design recorded a mean of $M = 3.90$ ($SD = 0.67$), indicating flexibility in lesson planning. The comparatively lower mean for the use of technology and resources ($M = 3.72$, $SD = 0.75$) may reflect limitations in access or training rather than lack of interest.

Table 5: Correlation between Entrepreneurial Education and Innovative Teaching Practices

| Variable | Entrepreneurial Education | Innovative Teaching |
|-------------------------------|---------------------------|---------------------|
| Entrepreneurial Education | 1 | .66** |
| Innovative Teaching Practices | .66** | 1 |

Table 5 presents the correlation analysis between entrepreneurial education and innovative teaching practices among prospective teachers. The results show a strong and positive relationship between the two variables, with a correlation coefficient of $r = .66$, which is statistically significant at $p < .01$. This indicates

that higher levels of entrepreneurial education exposure are associated with higher levels of innovative teaching practices. The strength of the correlation suggests a substantial association rather than a weak or marginal relationship. These findings provide empirical support for the assumption that entrepreneurial education contributes meaningfully to the development of innovative teaching behaviors. Overall, the results confirm that entrepreneurial learning experiences play an important role in shaping innovation-oriented pedagogy among prospective teachers.

Table 6: Regression Analysis Predicting Innovative Teaching Practices

| Predictor | β | t | Sig. |
|-----------------------------|---------|------|------|
| Entrepreneurial Education | .44 | 6.28 | .000 |
| Entrepreneurial Competences | .36 | 5.41 | .000 |
| Model R ² | .54 | | |
| F value | 68.32 | | .000 |

Table 6 presents the results of the regression analysis conducted to determine the predictive role of entrepreneurial education and entrepreneurial competences on innovative teaching practices. The model explained a substantial proportion of variance in innovative teaching practices ($R^2 = .54$), indicating strong explanatory power. Entrepreneurial education emerged as a significant predictor ($\beta = .44$, $t = 6.28$, $p < .001$), showing that increased exposure to entrepreneurial learning significantly enhances innovative teaching practices. Entrepreneurial competences also significantly predicted innovative teaching ($\beta = .36$, $t = 5.41$, $p < .001$), highlighting the importance of competence development. The overall model was statistically significant ($F = 68.32$, $p < .001$). These findings confirm that entrepreneurial education and competences jointly contribute to the development of innovative teaching practices among prospective teachers.

Table 7: Gender-wise Comparison of Innovative Teaching Practices

| Gender | Mean | SD | t-value | Sig. |
|---------------|------|------|---------|------|
| Male (n=24) | 3.87 | 0.62 | 0.61 | .544 |
| Female (n=96) | 3.91 | 0.58 | | |

Table 7 presents the gender-wise comparison of innovative teaching practices among prospective teachers. Male prospective teachers reported a mean score of $M = 3.87$ ($SD = 0.62$), while female prospective teachers reported a slightly higher mean score of $M = 3.91$ ($SD = 0.58$). The t-test results ($t = 0.61$, $p = .544$) indicate that this difference is not statistically significant. This finding suggests that gender does not have a meaningful effect on innovative teaching practices. Both male and female prospective teachers demonstrate similar levels of innovation in teaching. Overall, the results imply that entrepreneurial education supports innovative teaching practices equally across genders.

FINDINGS AND DISCUSSIONS

The study findings showed that the exposure of prospective teachers to entrepreneurial education was moderate to high in B.Ed. (Hons) 4-Year program. Most respondents had a positive perception of such elements as teamwork, independent thinking, responsibility towards the outcome of learning and

innovation. It shows that to some degree, there is an already existing entrepreneurial-oriented learning practices within the teacher education program. Such learning experiences are relevant, and the existence proves to be a background of imparting innovation-related skills required in modern-day teaching. Nevertheless, relatively reduced exposure to formal planning and project-based entrepreneurial activities indicates that the entrepreneurial training has not been achieved in a systematic offer yet.

The research also established that the entrepreneurial competences of the would-be teachers were usually positive. The competences associated with creativity and the ability to identify opportunities were the strongest, which means that the respondents did not doubt their ability to produce ideas and find opportunities to positively affect the teaching practice. Pro activeness and initiative were rated positively too, which indicates willingness to take the initiative in academic and instructional situations. Risk taking and resilience, on the other hand, were noted to be at a comparatively lower level and thus represent an unwillingness to experiment with new strategies in uncertain situations. Such finding indicates that potential teachers are conceptually open to innovation but might need more enabling settings to engage in experimentation and learn as they fail.

Regarding the innovative practices in teaching, the results demonstrated that potential teachers were favorably oriented to innovative teaching. Student-centered teaching especially was very high and this showed an inclination to engagement with learners, interaction and participation. Reflective and adaptive instructing practices were also perceived positively, which means that continuous education of the instructional modalities was understood. There is, however, a relative constraint on technology and alternative resource use, which is an indication that contextual barriers like access restrictions or training or infrastructure can limit the implementation of innovative practices. This shows how the institutional support would be necessary to transform the intentions of innovation into classroom. Among the most significant results of the research, the researchers discovered that there is a strong and significant positive correlation between entrepreneurial education and innovative teaching practices. The outcome of this implies that the issue of ensuring that future teachers obtained greater amounts of entrepreneurial education was more likely to exhibit innovative teaching habits. The discovery substantiates the hypothesis that entrepreneurial education promotes competencies including creativity, initiative, and solving the problems that directly apply to innovative pedagogy. It also gives support to interpretation that innovation in teaching is not by chance but this is a systematic process that can be cultivated by focusing on educative experiences.

The regression analysis also established the fact that entrepreneurial education and entrepreneurial competences had a lot of predictive power and were greatly able to predict innovative teaching practices. Entrepreneurial education was found to be a more significant predictor, which indicated that systematic learning experiences are significant in the development of innovative pedagogical behavior. Entrepreneurial competences had also a substantial contribution meaning that individual qualities influencing education exposure, including creativity, planning, and resilience, are complements. Combined, these results indicate that curriculum design and competence development must be used as the means of preparing future teachers that would be innovative. Lastly, the gender-based comparison showed that there was no big difference between the male and female future teachers in the regard of innovative teaching patterns. This discovery indicates that entrepreneurial education affects innovative teaching patterns on equal measures between the genders. It also implies that without gender-based distinction strategies of innovation-oriented teacher education can be applied. Altogether, the results demonstrate the significance of a more systematic implementation of entrepreneurial education within the teacher preparation programs to enhance the impact of the innovative teaching types and equip the future teachers with the skills applicable to the needs of the modern education.

CONCLUSIONS

The paper concluded that entrepreneurial education is an important process of promoting innovative teaching practices in the potential teachers with a 4-year B.Ed. (Hons) degree. The results show that potential educators have the moderate to high degree of exposure of entrepreneurial education, especially in the fields concerning teamwork, independent thinking, initiative, and learning responsibility. These factors offer positive ground to the creation of innovation oriented practice in teaching in introductory teacher preparation. The investigation also concludes that future teachers have a positive degree of entrepreneurial competences, and in this case, creativity, recognition of opportunities, and initiative are some of the major strengths. Nevertheless, the lower risk-taking and strength estimates in comparison outweigh the possibility that future educators need more formal experimentation and failure learning. The further development of these competences is critical in promoting the long-lasting innovation in the teaching process and providing future teachers with an opportunity to apply the new methods of teaching without any doubts.

As far as the innovative teaching practice is concerned, the study concludes that the prospective teachers are more oriented towards the styles of student-centered teaching, reflective and adaptive teaching. Though the application of technology and alternative resources was relatively low, this does seem to be guided more by contextual and institutional factors than unwillingness to be innovative. This explains the significance of equipping the innovative teaching with enough resources and practical training. One of the crucial findings of the research is that the entrepreneurial education is closely and significantly related with the innovative approach toward teaching. Singular predictive potential of entrepreneurial training and entrepreneurial competences validates that educative breakthrough could be achieved by designing tuition learning experiences in an orderly manner. The results highlighted thereof are that entrepreneurial education must be considered as valuable pedagogical practice applied to teacher education as opposed to an independent or optional element.

RECOMMENDATIONS OF THE STUDY

On the basis of the findings and conclusions of the study it was recommended that the teacher education institutions must consider bringing in entrepreneurial education as part of the B.Ed. (Hons) 4-Year curriculum more systematically. The aspects of entrepreneurial learning that include opportunity recognition, initiative, creativity and problem solving need to be interwoven throughout the core education classes and not included as a stand-alone subject. Such an integration would assist the future teachers in building innovation oriented pedagogical skills during the training period. Teacher educators are advised to use more experiential and project-based forms of learning whereby potential teachers can plan, implement, and reflect innovative teaching activities. Micro-teaching, lesson-designed, and structured experimentation may reinforce entrepreneurial competing competences, including in the following areas: risk-taking, planning, and resilience. Innovative solutions to the current teaching practices can also be improved by creating a friendly atmosphere in which a failure can be considered as a part of the learning process. The paper also suggests enhancing the practical training associated with the usage of technology and other teaching materials.

Future teachers can be assisted in transforming aspiring innovations into practical educational activities through workshops, practical training, and use of digital resources. Infrastructure and instructional resources should be supported by the institution as a way of promoting technology-mediated innovation in teaching. In the process, curriculum developers and policymakers ought to look at matching teacher education programs to competence-based frameworks that highlight entrepreneurship and innovation as very important professional skills. Teacher education programs should have clear learning outcomes associated with entrepreneurial competences and innovative teaching practices that are to be assessed. This

kind of alignment has the ability to provide consistency in matters of educational objectives, instructional methodologies and testing. Furthermore, professional development programs among teacher educators are suggested to be directed at entrepreneurial and innovative pedagogies. Improving the ability of teacher educators to exemplify innovative practices can be beneficial in improving the learning experiences and attitude towards innovation among prospective teachers.

The cultures of teacher education can be maintained with the help of continuous professional learning as this would help to keep the orientation to innovation. Lastly, future studies are advised to broaden the scope of the paper by merging a variety of institutions, larger sample, or to use longitudinal designs to identify the long-run effects of the entrepreneurial education on instructional practice. The qualitative research can also be carried out so that more detailed information can be obtained about the experience and difficulties of prospective teachers in implementing the concept of entrepreneurship and innovativeness to actual classroom activities.

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