

MEASURING ENTREPRENEURIAL COMPETENCIES: A REVIEW PAPER

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Abstract: -

India is poised to become the country with the highest youth population in the world' (PM Modi March 2018). But in the present time when the whole world is battling with problems like COVID-19 and economic slowdown, creating employment opportunities for all is the main challenge for any nation. Effective entrepreneurship education is essential to show the right direction to the youth wandering in search of employment and channel their potential into the nation's economic development. Teachers need skills to facilitate entrepreneurial education at different levels.

This paper aims to review the literature and find various tools for measuring entrepreneurial competencies. The last 23 years of research papers were taken from various sources for this review paper. The '*Entrepreneurial Competencies*' key term was used to filter the papers on the website. The team filtered around 145 papers at the initial level. After the refiltration, the researcher shortlisted 35 papers for the literature review.

Based on the literature review, the researcher finds that entrepreneurial competencies can be developed through education. The research also suggested that competencies cannot be developed in the classroom and require experience outside the boundary wall.

Key Words: - entrepreneurial; competencies; pedagogy; curriculum

Introduction

The role of 'Teacher' has emerged according to societal needs and changes. Now the teacher is not only the source of knowledge but also a facilitator who facilitates the young minds to develop or create their knowledge. He has the power to change the entire universe through his guidance. The New Education Policy of India (NEP, 2020), envisions students as individuals empowering themselves in the face of the rapidly changing international context and states. In Part 4.23, NEP 2020 says, 'Students must be successful, innovative, adaptable and productive individuals. Learning certain subjects, skills, and abilities is also necessary to become a successful Entrepreneur'. Trivedi (2014) stated that the youth have innate entrepreneurial qualities, but they don't have the competencies to put them into practice. These competencies can be developed through entrepreneurship education so that their inner talent is not wasted. In such situations, the teacher must be equipped with competencies and knowledge upgradation. Now here, competent and trained teachers are the basic requirement of any education system.

What is ‘Competency’

The word "competence" is commonly used in all professions. Competency is defined as the total of observable, measurable knowledge, abilities, and character attributes that increase an employee's productivity and, ultimately, the organization's success. Competency is a part of someone's personality, which involves functioning well in any type of workplace, a person must exhibit certain behaviours, which are known as competencies. According to the European Commission (2006), ‘Competency is the combination of knowledge, skills and attitudes’. According to the European Commission (2018), in addition to knowledge and comprehension, competencies also involve the capacity to use those things when carrying out a task (skill) and the mindset with which the learner approaches the work, in. As per the European Commission (2018), Knowledge comprises facts, numbers, established notions, ideas, and theories that bolster comprehension of a certain field or subject; abilities and capacities to carry out procedures and apply prior information to produce desired outcomes are known as skills and attitudes involves the state of mind and propensity to behave or respond, values, beliefs, or conditions.

In reference to entrepreneurial education at the school level, the teacher simplifies the concepts, presents them to the students, links the experiences of the students with this concept and again guides them for the synthesis of knowledge. The teacher is the central part of this whole teaching-learning process. For effective entrepreneurial education, the teachers must have some basic attitudes, and skills, which are known as competence.

The Emergent Need: Entrepreneurial Competencies

According to Almahry et al,2018, “Entrepreneurship is about creating and building something useful. It is about the ability to take risks and face the fear of failure”. The goal of entrepreneurship education is to make pupils more opportunity-oriented, inventive, creative, and vibrant. So, potential entrepreneurs should be educated to enhance their entrepreneurial competencies (Lackeus,2015). Entrepreneurship is converting ideas into practice (Bhardwaj, 2020). But in its broadest sense,' it appears to encompass communication skills, complex mental processes, better planning, quick decision making, flexibility, measurement of success, etc. '(Dearborn, 2014). Encouraging entrepreneurship as a daily activity has to be considered a general meta-competence which is placed ontologically and educationally before several kinds of enterprises. The first condition for this integration is a change in teacher competencies, skills, knowledge, and attitudes (Focus Paper on Teacher Education, 2009).

Effective education of any subject depends on its effective implementation and this implementation depends on the teachers' efficiency, skill, training, attitude, etc. According to Ruskovaara; Pihkala; Rytola & Leino (2014), teachers are crucial in operationalizing entrepreneurship education.

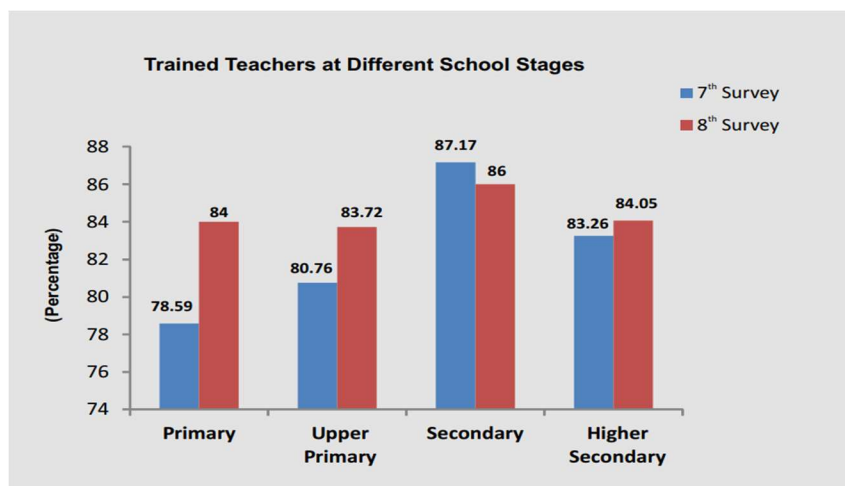


Figure 1 Trained teachers at different school stages

Sources: - 8th AISES Concise report, NECRT, Delhi, India (2009-10)

To ensure the quality of education, prospective teacher training and during-service training must be prioritized (Kuratko and Morris, 2018). According to Basu (2014), the primary obstacle to entrepreneurship education is untrained educators. Shankar (2012) has highlighted the paucity of trained teachers as a major constraint in entrepreneurship education in India. A teacher is the most important component of school education and the country is facing a shortage of skilled and trained teachers at various levels of education (NKC, 2008). This shortage of teachers has become more prevalent since education became a fundamental right (National Curriculum Framework for Teacher Edu., MHRD, 2009). Realizing the importance of competent teachers, The Chattopadhyay committee (1983-85) recommended at least 5 years training period for teachers working at the secondary level. The committee also suggested that special efforts should be made to develop competence in prospective and on-the-job teachers. The Kothari Commission (1964-66) recommended that enhancing the quality of education requires educators to be professionally prepared. Because, "Of all different factors which influence the quality of education and its contribution to National development, the quality, competence and character of teachers are undoubtedly the most significant." (Kothari Commission, 1964-66). So, it is necessary to measure these competencies and plan some remedial programs after that. Now strong demand emerges here to find various tools related to entrepreneurial competencies.

Methodology

This paper aims to review the literature and find various tools for measuring entrepreneurial competencies. The last 23 years of research papers were taken from various sources for this review paper. The '*Entrepreneurial Competencies*' key term was used to filter the papers on the website. The team filtered around 145 papers at the initial level. After the refiltration, the researcher shortlisted 35 papers for the literature review.

Teaching Competencies Required for Entrepreneurship Education

After the literature review, the researcher found various concerns related to the entrepreneurial competencies of teachers. Which competencies are crucial for entrepreneurship education? How to develop these competencies in teachers? Do these competencies differ as per the teaching

subject or school level? What if teachers do not possess these competencies? etc. This paper focuses on entrepreneurial competencies included in various tools as per the literature review.

The Diagnostic Analysis of Elementary Education Schemes in Rural Punjab (2016) report, sponsored by Niti Ayog, highlights the need for dedicated teachers in government schools to upgrade their skills and develop a critical understanding of new policies and pedagogical changes (Vimal, 2020). Teachers need skills to facilitate entrepreneurial education at different levels (Grigg, 2021). According to Cris et al. (2022), "entrepreneurial competencies" are composed of organizational, strategic, conceptual, human relations, commitment, and opportunity skills. Joensuu et. al. (2020), considered teachers' innovativeness and risk-taking ability to be the key competencies and educators who possess less inventive and risk-taking skills do not employ as many entrepreneurial teaching techniques as those who possess these qualities.

According to Deepti (2018), teaching competency is a set of professional skills and dispositions that the teacher should possess to carry out his or her job effectively. Teaching competencies are defined as the knowledge, skills, abilities, and other characteristics that enable a secondary teacher to perform skilfully in an entrepreneurial mindset class. All that is necessary for a teacher to effectively transfer knowledge and produce the intended learning outcomes in the form of academic accomplishment in their students is a composite set of abilities that they must possess. These skills are known as teaching competencies. Whereas Hocenski, et al (2019), considered leadership and risk-taking, creativity to be the main competencies of entrepreneurial teachers. According to Natuna & Rinaldi (2017), teaching entrepreneurship is the ability of a teacher to incorporate entrepreneurial values through integration with all academic areas. They consider innovative thinking, courageous leadership, action orientation, and persistence to be the main competencies for teachers. According to Capote and Dinagsao (2016), competencies like opportunity seeking, human relation, conceptual, organizing, strategic, and commitment are necessary to develop an entrepreneurial mindset. Whereas Tadvı & Margre (2016), stated that, teachers must have competencies like innovation, risk-taking, problem-solving, self-confidence, initiative-taking, creativity, etc.

The NCTE has divided teaching skills into three categories: social, professional, and personal. These competencies are further divided into other subheadings which are: - competencies connected to educational activities, including contextual, conceptual, content, transactional, and evaluation; managerial proficiencies; Proficiency in interacting with parents; and abilities necessary for collaborating with other organizations and communities. Same as Lackeus (2015), broadly categorised entrepreneurial competencies into 3 different subgroups: - knowledge, abilities, and attitudes. The knowledge subgroup includes information about how to take risks, resource and probability models, opportunities, value creation, finance, idea generation, marketing, technology, accounting, risk, and others. The skills subgroup considered the competencies like: - marketing, interpersonal relationships, fundraising, learning, opportunity, and strategic skills. The attitude subgroup carries entrepreneurial passion, self-efficacy, entrepreneurial identity, proactivity, innovativeness, uncertainty tolerance, and perseverance. Man et al. (2002), also suggested a broad list of entrepreneurial competencies which included interpersonal competencies; opportunity competencies; organizational competencies like leadership or team building; conceptual competencies like taking initiative or being risk-taking; and strategic competencies like project management. and engagement competencies like overcoming adversity.

After reviewing the literature on the variable, ‘Teaching Competencies Related to Entrepreneurship Education’, a summary is prepared in a tabular form. The table given below shows various teaching competencies required for entrepreneurial education as per the literature review.

Table 1 Different Entrepreneurial Competencies, suggested by various researchers

S. No	Recommended By	Entrepreneurial Competencies
1.	Ho & Le (2024)	Innovativeness; Risk-mitigation; Resource-seeking, and Cohesiveness-cultivation
2.	Cris et al. (2022)	Organisational, strategic, conceptual, human relations, commitment, and opportunity skills
3.	Martin et. al. (2021)	Strategic alliances, communication, spontaneity, planning, risk perception, creativity, and futuristic
4.	Joensuu et al (2020)	Innovativeness and risk-taking ability
5.	Hocenski et al (2019)	Leadership and risk-taking, creativity
6.	Natuna & Rinaldi (2017)	Innovative thinking, courageous leadership, action orientation, and persistence
7.	Capote and Dinagsao (2016)	Opportunity seeking, human relation, conceptual, organizing, strategic, and commitment
8.	Entrepreneurship Development Institute of India, Ahmadabad; Tadvil & Margre (2016)	Initiative; Sees and acts on opportunities; Persistence; Information Seeking; Concern for High Quality of work; Commitment to work contract; Efficiency Orientation; Systematic Planning; Problem-Solving; Self-confidence; Assertiveness; Persuasion; and Use of Influence strategy
9.	Ernest, Matthew & Samuel, (2015)	An attitude towards entrepreneurship, entrepreneurial thinking skills, and knowledge related to entrepreneurship
10.	Lackeus, (2015)	The knowledge subgroup: - information about how to take risks, resource and probability models, opportunities, value creation, finance, idea generation, marketing, technology, accounting, risk, and others. The skills subgroup: - the competencies like: - marketing, interpersonal relationships, fundraising, learning, opportunity, and strategic skills. The attitude subgroup: - entrepreneurial passion, self-efficacy, entrepreneurial identity, proactivity, innovativeness, uncertainty tolerance, and perseverance.

11.	Dam, et al. (2010).	Entrepreneurial understanding, professional flexibility, job-related self-efficacy, innovative thinking, networking skills, collaboration skills, and entrepreneurial climate
12.	Man et al. (2002)	Interpersonal competencies; opportunity competencies; organisational competencies like leadership or team building; conceptual competencies like taking initiative or being risk-taking; strategic competencies like project management, and engagement competencies like overcoming adversity.

The researcher found 12 tools developed for measuring entrepreneurial competencies at different levels. Innovativeness, risk-taking, opportunity-seeking, problem-solving and leadership are the common entrepreneurial competencies mentioned in various tools.

Conclusion

The European Commission (2013) stated that the specialized responsibilities and activities that teachers encounter in the classroom—where professional knowledge and abilities are used and demonstrated—are known as teaching competencies. These entrepreneurial competence bridges the gap between teaching and learning by guiding opportunity identification through the development of skills, knowledge, and traits into values, equipping students to face the challenges of the business world (Brakaj & Safrankova, 2024). The researcher found 12 tools developed for measuring entrepreneurial competencies at different levels. Innovativeness, risk-taking, opportunity-seeking, problem-solving and leadership are the common entrepreneurial competencies mentioned in various tools. So, teachers must possess these competencies for effective entrepreneurial education.

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