

**A STUDY OF TEACHING COMPETENCIES AND PEDAGOGICAL PRACTICES
OF TEACHERS TEACHING EMC IN RELATION TO THEIR UNDERSTANDING
OF THE CURRICULUM**

REENA

*School of Education, Sharda University
Greater Noida, UP*

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Introduction

Entrepreneurship Education is very important for a developing country like India (Kristianti, et al., 2024; Saranza et al., 2022; Rehman & Elahi, 2012). After liberalization, great efforts were initiated in the field of Entrepreneurship Education. To meet the needs of the present population, it becomes important to impart Entrepreneurship Education effectively so that it not only develops skills among the students but also develops an entrepreneurial attitude and leads them to become self-reliant. 'Entrepreneurship education is a significant tool to improve entrepreneurial intention' (Martin et. al 2021; Basu,2014)'. 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). Entrepreneurship education aims to make pupils more opportunity-oriented, inventive, creative, and vibrant. So, Potential entrepreneurs should be educated to enhance their entrepreneurial competencies (Lackeus, 2015). Research shows that entrepreneurial competencies in human behaviour can be induced and controlled by external factors, therefore it is necessary to teach entrepreneurship in schools, from an early age (Tattwamasi,2005; National Knowledge Commission, 2008; Kautonen et al.2015).

Arasti et al. (2012) stated that the knowledge and skill of an educator to use various teaching methods, particularly those linked to teaching entrepreneurship, have a major role in the effectiveness of entrepreneurship education. Thus, to boost students' entrepreneurial intentions, student-centric learning methods, practical knowledge, and entrepreneurial understanding are required (Adha et al. 2023). Effective education of any subject depends on its effective implementation and this implementation depends on the teachers' knowledge, skills, pedagogy, attitude, etc. The whole responsibility lies on the teachers, who play a significant role in the teaching-learning process. A strong need emerges here to study the teaching competencies, and pedagogical practices followed by secondary school teachers teaching Entrepreneurship education.

The Entrepreneurial Mindset Curriculum (EMC)

In the field of entrepreneurship education, the concerns of 'what to educate and how to educate' become vital nowadays. (Ronstadt, 1987). According to Agrawal (1995), The curriculum, which has great significance in education, must not be a mere repository of facts; rather, it ought to have real-world applications.

In the present study, the Entrepreneurship Mindset Curriculum (EMC) introduced in March 2020 by SCERT, Delhi is referred to here as the Entrepreneurship Mindset Curriculum (EMC). The EMC has 6 components, which are mindfulness, student special class, live entrepreneur interaction, career exploration, business blaster, and thematic units. However, the business blaster component is designed for the senior secondary level. The secondary-level curriculum contains only 5 components.

The curriculum framework recommended three pedagogies in which experiential, learning principles enable the learners to develop the expected skills and abilities for a better future. At the secondary level, a 35-40-minute period for every day is assigned to EMC. Here classroom learning and outside-the-classroom experience, are considered valuable for learners.

TEACHING COMPETENCIES

Teaching competency is a higher-order, complex skill in which the teacher is correlating different skills and experiences (Blumenke and Delaney,2012). The educators facilitate the concepts, present them to the students, connect the students' experiences with this concept, and help them understand creation. For effective teaching in a particular subject, the teachers must have some basic attitudes, and skills, which are known as Competencies. Brakaj & Safrankova (2024) stated that by helping students identify opportunities through developing skills, knowledge, and attributes into values, entrepreneurial competencies overcome the gap between teaching and learning and prepare them for various business world challenges. Thus, to effectively teach entrepreneurship, teachers need to possess certain competencies.

In this research study, 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 were considered as teaching competencies required for teaching Entrepreneurship Education at the secondary level (Ducette J., Mcbar et al.,1987).

Pedagogical Practices

Entrepreneurship Education is a broad field that encompasses several courses and activities (Albornoz & Rocco, 2009). The requirements of society are also influencing it. As a result, traditional teaching approaches make it extremely difficult to transmit material, knowledge, and skills. Entrepreneurship Education is multidimensional (Tattwamasi, 2005). So, it requires a different pedagogy and learning activities than regular economics subjects (Goksen-Olgun et al, 2022).

In this research, Experiential, Reflectional and Inspirational pedagogies (as recommended by EMC framework 2020, SCERT Delhi) along with traditional (teacher-centred) pedagogy were considered Pedagogical practices.

Objective

- To assess the teaching competencies of teachers teaching the Entrepreneurship Mindset Curriculum at the secondary level in the schools of DoE, Delhi.
- To assess the pedagogical practices followed by teachers teaching the Entrepreneurship Mindset Curriculum at the secondary level in the schools of DoE, Delhi.
- To study the teaching competencies and pedagogical practices of teachers teaching EMC (Entrepreneurial Mindset Curriculum) in relation to their understanding of the curriculum at the secondary level in the schools of DoE, Delhi.

Hypothesis

- Ho1: There will be no significant relationship between teaching competencies, and understanding of the curriculum of secondary school teachers working in the schools of DoE.
- Ho2: There will be no significant relationship between pedagogical practices and understanding of the curriculum of secondary school teachers working in the schools of DoE.

Methodology

The study is based on the descriptive survey method. Systematic Random Sampling was used to choose a representative sample of the population. A total of 300 Teachers, teaching Entrepreneurial Mindset Curriculum at the secondary level in DoE Schools of Delhi, were taken as a sample of the study.

Research Tools

- The Self-Rating Questionnaire (SRQ) (Revalidated by the researcher, 2024).

This tool was initially developed by Ducette J., Mcbar et al. in 1987. After that, the researcher revalidated the tool. The tool is a self-rating questionnaire comprising 70 brief

statements based on 13 competencies. The tool’s Cronbach alpha value is 0.956. In this tool, the respondents are expected to mark their responses on a 5-point Likert scale where 5 – Very Well; 4 – Well; 3 – Somewhat; 2 – Very Little and 1 – Not at all. The respondents were categorised into 5 groups based on the scores obtained through the tool. These categories are Novice; Beginner; Average Proficient; Proficient and, Expert.

- Entrepreneurial Pedagogical Practices Scale (EPPS) for secondary school teachers (Constructed and validated by the researcher, 2024).

The Entrepreneurial Pedagogical Practices Scale (EPPS) was constructed on a 5-point Likert Scale. The tool’s Cronbach alpha value is 0.972. The tool comprised 86 items. The tools have three parts: The first part was related to the respondents’ demographic information. The second part dealt with the first subscale related to teachers’ understanding of EMC and the respondents were asked to rate the items on a 5-point Likert scale, where 1-Strongly Disagree; 2-Disagree; 3 Neutral; 4-Agree; & 5-Strongly Agree. For this, 6 Sigma criteria were used under 5 categories, which are: very poor; poor; fair; good; & very good. The third part was related to the second subscale related to pedagogical practices followed by respondents and the respondents were asked to rate the items on a 5-point Likert scale (based on their current academic year experience), where 1-rarely (Less than 2 periods in a month); 2-occasionally (2-3 periods in a month); 3-sometimes (4-5 periods in a month); 4-frequently (6-8 periods in a month); and, 5-usually (more than 8 periods in a month).

Data Analysis

The mean, SD, and Pearson Correlation were used to analyse the data.

The graph given below (figure 1) shows the analysis of various pedagogical practices followed by secondary school teachers teaching the Entrepreneurship Mindset Curriculum in DoE schools

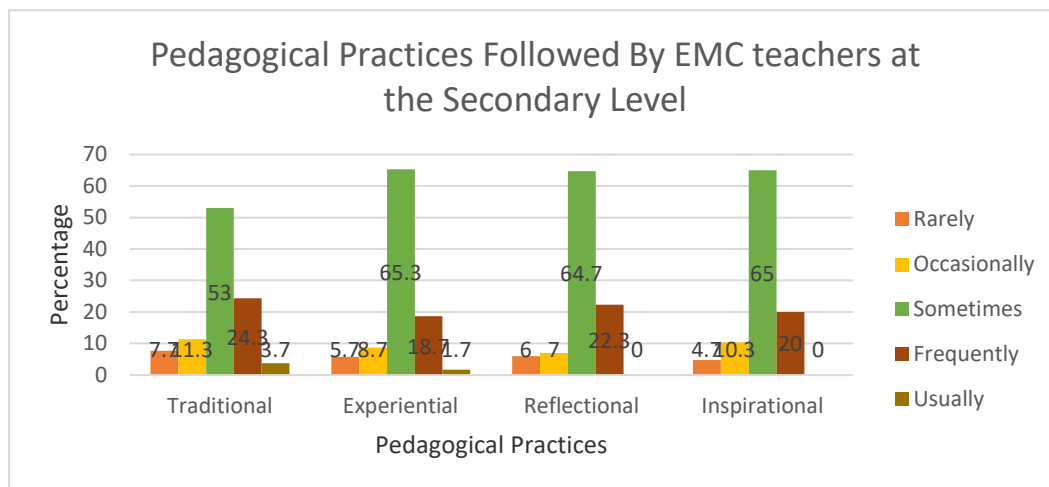


Figure 1: Pedagogical Practices Followed by EMC Teachers at the Secondary Level in the Schools of Dir. Of Education.

The data demonstrates that more than 64% of teachers used Experiential, Reflectional and Inspirational pedagogy for 4-5 periods a month (sometimes). In comparison to these, the traditional pedagogy was used for 4-5 periods in a month by 53% of teachers. Around 5% of teachers used Experiential, Reflectional and Inspirational pedagogical practices for less than 2 periods a month (rarely). Around 8% of teachers used traditional pedagogy for less than 2 periods a month (rarely) which indicates that they give less priority to the traditional pedagogy. The bar chart indicates that not a single teacher used the Reflectional and Inspirational pedagogy for more than 8 periods in a month.

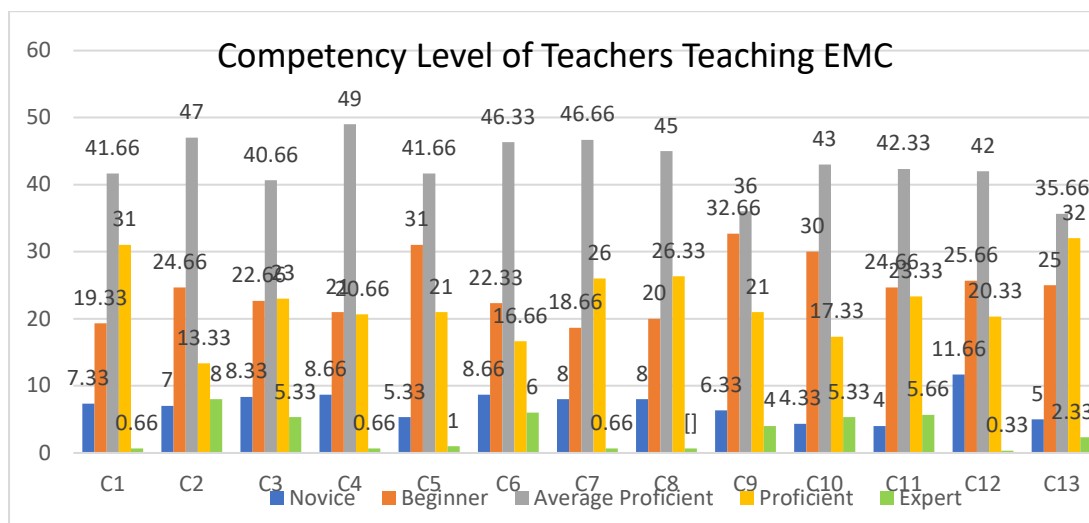


Figure 2: The competency level of teachers teaching EMC at the secondary level in DoE schools in Delhi.

Figure 2 mentioned above, shows the competency level of teachers teaching EMC at the secondary level in DoE schools in Delhi. The graph shows the following:

- **Expert and Proficient Levels are often Low among Competencies:** Expert has the largest presence at 8% in C2, while Proficient has a percentage of 23.33% in C8. It reflects that very few teachers have advanced proficiency in teaching the EMC at the secondary level in the DoE schools.
- **Competencies with High Levels of Average Proficiency:** The percentage of educators in the Average Proficient category for competencies C3, C4, C5, and C6 is high (49%, 41.66%, 46.33%, and 46.66%, respectively). This consistency shows that even while a large number of teachers possess the necessary competencies, they might not be especially proficient or inventive in using them. They are just moderately competent in teaching EMC subjects.

- **Disparities in Novice and Beginner Levels:** There are notable differences between the Novice and Beginner levels in several competencies. The lowest percentage of novice educators, 5.33%, is found in C4, whereas C5 contains 11.66% of them.
- **Larger Novice and Beginner Level Competencies:** Competencies C2 and C9, which have comparatively larger percentages of Novice and Beginner teachers (31% for C2 and 32.66% for C9), are examples of these competencies.

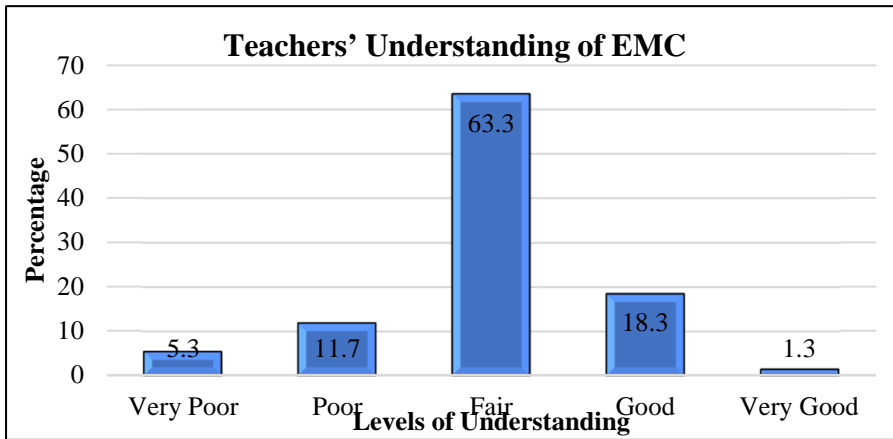


Figure 3: Percentage Representation of Teachers' Understanding of EMC Teaching at the Secondary Level.

The above graph shows the understanding level of teachers about the Entrepreneurship Mindset Curriculum. The graph reveals that the maximum percentage of teachers have a fair understanding of the EMC. Whereas only 1.3% of teachers have a very good level of understanding. A significant percentage of teachers (17%) show poor or below-level understanding of EMC. These teachers required special attention from the policymakers or curriculum developers.

The Pearson correlation was analysed to study the relationship between teaching competencies, pedagogical practices and understanding of EMC. The table given below shows the correlation between teaching competencies and understanding of EMC

Table 1: Correlation of Teaching Competencies and Understanding of EMC of Teachers teaching at the secondary level in the schools of Directorate of Education, Delhi.

C. No.	Competencies	Understanding of Curriculum
C1	Initiative	.059
C2	Sees and Acts on Opportunities	.098
C3	Persistence	.088

C4	Information Seeking	.149*
C5	Concern for High Quality of Work	.064
C6	Commitment to Work Contract	.069
C7	Efficiency Orientation	.005
C8	Systematic Planning	.050
C9	Problem-Solving	.052
C10	Self-confidence	.066
C11	Assertiveness	.019
C12	Persuasion	.072
C13	Use of Influence Strategies	.054

* Significant at 0.05 level.

Table 1 shows that out of 13 competencies, the strongest significant correlation is seen with ‘Information-seeking’ competency. This implies that educators who actively seek out information usually possess a greater understanding of the curriculum. Apart from this, competencies like ‘Sees and Acts on Opportunities’ and ‘Persistence’ also demonstrate a significant correlation with understanding of EMC.

- However, other competencies, such as ‘Efficiency orientation’, ‘Problem-solving’, ‘Assertiveness’, and ‘Use of Influential Strategies’ exhibit highly fragile relationships, indicating that these competencies have a negligible effect on curriculum understanding. Based on the above findings the researcher is unable to accept the Ho1, “There will be no significant relationship between teaching competencies, and understanding of the curriculum of secondary school teachers working in the schools of DoE”.

Table 2: Correlation of Teaching Pedagogy and Understanding of EMC of Teachers teaching at the secondary level in the schools of Directorate of Education, Delhi.

S. No.	Pedagogy	Understanding of Curriculum
1	Traditional Pedagogy	.892*
2	Experiential Pedagogy	.840*
3	Reflection Pedagogy	.799*
4	Inspirational Pedagogy	.825*

* Significant at 0.05 level.

Table 2 shows the correlation between pedagogical practices and understanding of the EMC. The table indicates that teachers' understanding of the Entrepreneurial Mindset Curriculum (EMC) strongly correlates with their pedagogical practices. These pedagogies involve the traditional one to the innovative teaching pedagogies. Here the correlation indicates that teachers who used traditional pedagogy and innovative pedagogies (experiential, reflection and inspirational pedagogy suggested by the EMC framework) have shown a strong correlation with understanding of the curriculum.

Based on the above findings the researcher is unable to accept the Ho2, “There will be no significant relationship between pedagogical practices, and understanding of the curriculum of secondary school teachers working in the schools of DoE”.

Discussion

Effective entrepreneurial teaching relies on the knowledge and competencies of teachers as well as the teaching pedagogy they use in their classes. Thus, there is a correlation between teaching pedagogies of Entrepreneurship Education and teacher’s degree of entrepreneurial competency. Saranza et al. (2022) stated that educators are primarily responsible for incorporating this subject into the curriculum and identifying the most effective approach. Sherman, Sebora & Digman (2008) stated that the way educators run their classrooms by implementing effective teaching methods is a key component of their entrepreneurial competencies. According to Ruskovaara and Pihkala (2013), there are no established pedagogical norms for Entrepreneurial education, therefore teachers are mostly responsible for incorporating it into their classes. Arasti et al. (2012), also supported the findings. They stated that the knowledge and skill of an educator to use various teaching methods, particularly those linked to teaching entrepreneurship, have a major role in the effectiveness of Entrepreneurship education. The findings are also supported by Mico and Cungu (2023). They stated that teachers need to be conceptually proficient to help students develop entrepreneurial competency. Nadelson et al. (2018) highlighted the need for professional development of teachers’ knowledge. Capote & Dinagsao (2016), suggested that entrepreneurial competencies and knowledge are an important part of success in entrepreneurial areas therefore it is also necessary for teachers to possess these competencies. Albornoz & Rocco (2009), stated that the discipline of Entrepreneurship education is very vast as so many courses and programs were included in this.

Conclusion and Suggestions

In the present study, the researcher investigated the teaching competencies and pedagogical practices of teachers teaching Entrepreneurship Mindset Curriculum in the schools of the Directorate of Education, Delhi in relation to their understanding of EMC. The research finds that a significant no. of teachers possess the average proficiency level. The research reveals that around 65% of teachers used experiential pedagogy for 4-5 periods a month in their classes. The research finds that 53% of teachers used traditional pedagogy for 4-5 periods a month in their classes. It was noticed that 22.3% of teachers used the reflective approach for 6-8 periods a month in their classes. It is observed that no educator uses Inspirational & Reflectional approaches. This research found that 63.3% of teachers have a fair understanding of the EMC curriculum followed at the secondary level. Around 17% of teachers reflected a poor or below-level understanding of EMC, which may affect their teaching competencies and pedagogical practices (Mico and Cungu, 2023). The research reveals that teaching competencies and pedagogical practices have a moderate correlation with understanding of EMC (Anđelković et al., 2020; Saranza et al., 2022). Dam, et al. (2010), found that entrepreneurial content knowledge is important for teachers' entrepreneurial competency development. They also found that entrepreneurial content knowledge is important for teachers' entrepreneurship pedagogy. So, in the future teacher training institutes may consider these findings and plan a training module accordingly. That's why it is very difficult to transmit the content with typical teaching pedagogy. The research highlighted the need for professional development of teachers' knowledge and entrepreneurial competencies. Further studies may be taken to investigate why teachers who have a better understanding of the curriculum, used traditional pedagogy for teaching EMC at the secondary level.

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