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# Entrepreneurship in Preschool Education: Turkish Preservice Teachers' Entrepreneurship Features, Comparison with their Lecturers' Views and Suggestions for Development

Sila Kaya-Capocci<sup>1</sup>

<sup>1</sup> Faculty of Education, Agri Ibrahim Cecen University, Agri, Turkey

<sup>2</sup> Integrated Science Association (ISA), Universal Scientific Education and Research Network (USERN), Ireland

Correspondence: Asst. Prof. Sila Kaya-Capocci, Faculty of Education, Agri Ibrahim Cecen University, Agri, Turkey. E-mail: silakaya@agri.edu.tr

## Abstract

Learning skills and developing competencies at early ages augment its benefits later in life, and therefore, can be effective in the long run. Starting from this point, the paper argues the need for and importance of enterprise education in preschool education. The paper aims to explore preservice preschool teachers' entrepreneurship features and make suggestions for implementing enterprise education in teacher education programmes. "The Entrepreneurship for Teacher Candidates Scale" was employed with 184 preservice preschool teachers, followed by interviews with four of their lecturers. Descriptive statistics and two-way ANOVA was used to analyse the quantitative data, and thematic analysis was used for the qualitative data. Overall, the results showed that preservice preschool teachers' perception of their level of entrepreneurship features was high, which was not agreed by lecturers except for self-confidence. The results of two-way ANOVA did not indicate any significant difference ( $p > .05$ ) for any of the factors investigated (i.e., gender, year of study, taking entrepreneurship courses previously, and/or having an entrepreneur in the family). This means that participants had similar scores and have similar levels of entrepreneurship features. Having no impact of the year of study and entrepreneurship courses attended previously on participants' entrepreneurial features may suggest the revision of preschool teacher education programmes and the content development targeting such features. Finally, practice-based, active, and collaborative teaching is suggested rather than theory-based teaching for enterprise education in preschool teacher education programmes. Teacher-academics meetings, seminars and workshops about enterprise education are suggested for professional development of preschool teachers.

**Keywords:** Enterprise Education, Entrepreneurship Feature, Preschool, Preservice Teacher Education, Professional Development

## 1. Introduction

Education is an evergreen process helping to develop people's knowledge, skills and attitudes. To bring up individuals strongly equipped with different competencies required in the 21st century, it is important to start

education early since basic characteristics are shaped back at early ages. One of the future's required competencies is viewed as entrepreneurship.

Recently, the focus at schools is moving from entrepreneurship to enterprising or entrepreneurial learning (Axelsson, Hagglund, & Sandberg, 2015; Korhonen, Komulainen, & Raty, 2012; Leffler, 2014). This may be because people used to view an entrepreneur as a greedy person driven by monetary ambition but recently, the need for enterprising people started to be acknowledged everywhere (Berglund, Johannisson, & Schwartz, 2012). Teachers' perception of an entrepreneur was also changed to a person providing different opportunities for world improvement, personal fulfilment, and collective actions. In recent years, entrepreneurship has been argued in educational settings in two ways: 1. entrepreneurship discourse concerning business and enterprise and 2. enterprising discourse aiming at personal development and entrepreneurial skills enhancement, such as children's ability to initiate, look for opportunities, as well as being responsible, participative, self-confident, and creative (Leffler, 2014). That is, it can be said that while entrepreneurship knowledge is viewed as one of the priorities in entrepreneurship education, developing entrepreneurial skills, environment, and pedagogies is prioritised in enterprise education rather than teaching entrepreneurship knowledge. Between these two different educations, teachers are ambiguous about teaching entrepreneurship with a business focus and prefer using enterprise education approach (Axelsson, Hagglund, & Sandberg, 2015). In this paper, enterprise education approach in adopted.

Various studies are conducted in secondary or third level education and showed the benefits of entrepreneurship at different ages (Deveci & Seikkula-Leino, 2018; Eltanahy, Forawi, & Mansour, 2020). For example, Deveci and Seikkula-Leino (2018) conducted a literature review on entrepreneurship in teacher education between 2000 and 2016. The total of 76 relevant studies that they found highlighted the importance of entrepreneurship in teacher development and recommended the inclusion of entrepreneurship in initial teacher education. At secondary level, Eltanahy, Forawi, and Mansour (2020) incorporated entrepreneurial practices into high school STEM education through an interdisciplinary E-STEM model. The researchers highlighted the importance of developing projects for STEM high school students to create value in society as well as the need for developing a pedagogical framework, where they proposed the E-STEM framework. A very limited number of studies are found at younger educational levels, such as preschool and primary education. Insulander, Ehrlin, and Sandberg (2015) highlighted the importance of enterprise education and entrepreneurial learning. Children's skills are developed, and awareness of the social environment is raised at early ages. Therefore, children's social awareness, sensitivity to environmental issues, creativity to come up with solutions to the problems, and expression of their opinion on different topics can be developed through social entrepreneurship in preschool education (Sarıkaya and Coskun, 2015). Similarly, Axelsson, Hagglund and Sandberg (2015) and Lindstrom (2013) argued that early age is the ideal phase to influence students' attitudes by implementing an entrepreneurial approach because entrepreneurial self starts to evolve at this period of life. Seikkula-Leino (2011) also supported that enterprise education is specifically more effective for younger children. Yan (2018) addressed the need for entrepreneurship in preschool education and the existing problems for this integration. Similarly, Garcia-Rodriguez, Gutierrez-Tano, and Ruiz-Rosa's (2018) study on entrepreneurship programmes with primary school students pointed to the need for initiating enterprise education at earlier ages for such implementations to be more effective. Although these studies highlight the need for and importance of enterprise education in preschool education, there is a limited number of studies conducted in preschool education context. Many researchers believe that education kills creativity, which is one of the entrepreneurial skills. Studies show that while all students in Turkish primary schools could come up with innovative ideas, 7% of high school students and 12% of university students could not come up with any new ideas (Elçi, 2011). This means that the current education system may hinder the development of entrepreneurial skills unless it is implemented effectively and starting from early childhood, particularly preschool. To develop students' entrepreneurial skills effectively at early ages, the primary focus of entrepreneurship in education should be shifted from content to pedagogy (Eltanahy, Forawi, & Mansour, 2020). However, there is still very little known about how this approach can be implemented in preschools and integrated into the pedagogy (Insulander, Ehrlin, & Sandberg, 2015). As teachers are the first implementers of different approaches, preservice preschool teachers' entrepreneurship features are of importance.

This paper explores preservice preschool teachers' entrepreneurship features and aims to propose suggestions for developing more effective entrepreneurship courses in teacher education programmes. The paper first argues the importance and benefits of integrating entrepreneurship into preschool education, followed by the review of the literature on entrepreneurship in preschool education worldwide and in Turkey. Secondly, the participants, the data collection tools, and data collection and analysis processes are introduced. In the results section, preservice preschool teachers' perspectives on their entrepreneurship features are presented and compared their lecturers' views. This is followed by the factors affecting teachers' entrepreneurship features and lecturers' suggestions for developing a more effective teacher education programme. The discussions are conducted based on research questions and the common themes mentioned in the results, namely the professional development and preschool teacher education programmes. Finally, the study is concluded, and suggestions are made.

## 2. The Perceived Need for Entrepreneurship in Preschool Education

Over the last few decades, entrepreneurship has been discussed in different contexts at different levels of education. While various researchers viewed entrepreneurship as starting a business and discussed it from a financial perspective (Blundel, Lockett, & Wang, 2017), some viewed it as a driver of social change rather than monetary expectations (Barbera-Tomas, Castello, De Bakker, & Zietsma, 2019) and discussed it from a social perspective, and some others viewed it as an opportunity to improve people's life quality (Hoz Rosales, Camacho Ballesta, & Tamayo Torres, 2019) and discussed it from an innovative perspective. Between the studies, there were also parts in common about entrepreneurship. The studies showed that enterprise education helps improve different features in life, such as contributing to advance the economy and society (Atkinson, & Mayo, 2010; Department of Education and Skills - DES, 2015; Goodwyn, 2017; Kaya, Erduran, Birdthistle, & McCormack, 2018) and develop people's competencies and their understanding of the world (Kaya-Capocci, McCormack, Erduran, & Birdthistle, 2021). An entrepreneurial individual can be created through enterprise education. According to OECD/CERI (1989, p.36):

An entrepreneurial individual has a positive, flexible and adaptive disposition to change, seeing it as normal and as an opportunity rather than a problem. To see change in this way, an entrepreneurial individual has a security born of self-confidence, and is at ease when dealing with insecurity, risks and the unknown. An entrepreneurial individual has the capacity to initiate creative ideas and develop them into action in a determined manner. An entrepreneurial individual is able, even anxious to take responsibility, is an effective communicator, negotiator, influencer, planner and organiser.

The literature shows that enterprise education is highly important at second and third level education to create entrepreneurial individuals equipped with many qualities. If we want to create future entrepreneurial citizens, enterprise education should start at early ages.

Cognitive and non-cognitive skills are developed during different stages in life, where the skills learned during one period in life (e.g., at primary school) augment the benefits of investments in these skills in subsequent periods (e.g., at high school or university). Early investments in skills may thus be particularly effective in the long run (Huber, Sloof, & VanPraag, 2014, p.90).

Many benefits of enterprise education have also been highlighted in the literature. Integration of entrepreneurship in preschool education may help achieve sustainable development of preschool education, provide them further success as college students, and promote employment in the future (Yan, 2018). Research shows that a meaningful enterprise education can support children to understand, realise and reflect the positive character (Putri & Djoehaeni, 2018). Not only this but also it may help raise a generation who values others' emotions and opinions as well as respects others and the environment, builds a strong community, and reaches social welfare and sustainable development (Sarikaya & Coskun, 2015). Because childhood is considered as the take-off for developing the entrepreneurial self, preschool may be considered as a better age group to gain positive attitudes towards entrepreneurship and adopt an entrepreneurial approach (Lindstrom, 2013). Seikkula-Leino (2011) also supported the implementation of enterprise education at early ages and believed that it is more effective for younger children. Sarikaya and Coskun (2015, p.892) highlighted the need for implementation of social

entrepreneurship in preschool education since “social values, creativity, ethics, and many social behaviours are taught to children for the first time” in preschool.

Although its importance and the perceived need for the integration of entrepreneurship into preschool education, Vican and Vuletic (2013) found a very limited number of research on entrepreneurship in childhood education published in different conferences and almost no research in peer-reviewed journals. After many years, the current non-systematic literature review in the following section also indicated the same results.

### *2.1 Literature on Entrepreneurship in Preschool Education*

The non-systematic literature review showed a scarcity of research worldwide and in Turkey. Conference papers and the papers focusing on more than one subject are excluded in this paper. This section introduces the international research on entrepreneurship in preschool education, followed by the national research in Turkey to point to the need for the current research paper.

Five international papers and two national papers were found within the criteria. The papers published worldwide were commonly about teachers and preschool teachers, a couple of papers targeted both students and teachers, and one paper analysed the literature. Between these papers, Lindstrom (2013) explored the preschool teachers' perception about their students' potential of developing civic competences, sense of initiative, and entrepreneurship in order to achieve active citizenship. The study was conducted through questionnaires from 529 professionals and other personnel working with children enrolled at the preschools in Sweden. Most participants partly or strongly agreed that preschool students (young children) could develop their leadership and creativity through different plays and activities and adopt an entrepreneurial approach. The results also showed that the self-emotion skills, such as self-efficacy, self-image, self-esteem, and self-confidence are important for entrepreneurship and active citizenship, and preschool students have potential to develop their citizenship and entrepreneurship through such skills. Looking at the skills that can be developed at preschool, the study also indicated that young people's personal development could be supported through active citizenship and entrepreneurship.

In another seminal study, Axelsson, Hagglund and Sandberg (2015) conducted research on entrepreneurial learning with five preschool teachers in Sweden. The results of questionnaires and interviews showed that entrepreneurial learning improved teachers' discursive teaching and students' entrepreneurial skills. The results also showed that ongoing reflection, active participation, a meaningful learning situation, and a tolerant atmosphere have an impact on entrepreneurial learning. The participating teachers referred to taking initiatives, problem-solving, decision-making as well as being active, creative, curious, communicative, and enterprising when talking about a positive entrepreneurial learning incident the children are practising. The participating teachers believed that the children were becoming motivated and self-confident during the research and thus, suggested to start using enterprise education at early ages.

Yin, Yang and Liu (2020) explored the psychological problems of 205 preservice preschool teachers and their entrepreneurial intentions in the industry in China. The paper argued that a positive emotional experience could promote entrepreneurial behaviour, and therefore, positive entrepreneurial environments should be promoted at universities. The results showed that students believe that they develop inadequate knowledge and skills at college, which the researchers believe could be the main reasons for students' negative attitudes toward entrepreneurship. The findings also indicated that the most significant entrepreneurial psychological issue is having low entrepreneurial ability, which is the same with the entrepreneurship qualities that participants believe they need to improve.

Kondracka-Szala and Malinowska (2019) conducted a semantic field analysis of the literature and made suggestions on what should be considered when preparing an early childhood education teacher for teaching at enterprise education classes. The objectives of enterprise education are explained in the paper as follows:

The primary objective is to steer the thinking and actions of students towards enhancing entrepreneurial activity in the local community, to undertake ventures preceded by thoughtful analysis of the contexts of action and to improve practice/organisation by introducing innovations. It is to encourage teachers to break the monotony of routine instructional methods, and to sensitise them to the need to respond to changes occurring inside and outside the organisation. (p.163)

To achieve these objectives and foster the entrepreneurial spirit, the researchers believe that (a) future teachers should be equipped to be promoters and initiators of change as well as local community leaders, (b) equipping teachers with such features requires a new approach and new model of cooperation between education participants, and (c) this cooperation can be achieved through teaching internships and study visits.

Insulander, Ehrlin, and Sandberg (2015) investigated the ways preschool students can receive support and recognition for active participation in entrepreneurial environments. The paper aimed to increase preschool teachers' awareness of the benefits of enriching everyday practice with entrepreneurial activities on supporting early childhood education. The study was conducted in three preschools with nine preschool teachers and their students. The paper compared three activities in different schools in terms of learning design and settings. The results indicated that preschool students' creativity was sometimes hindered by teachers when teachers' focus shifted from encouraging entrepreneurial skills, such as creativity and curiosity, to the implementation of the activity. To promote enterprise education, various researchers support creating an environment allowing disagreements. For example, Kondracka-Szala and Malinowska (2019) believe that enterprise education should support discovering the relationship between education and provocation in an environment embracing disagreement, flourishing different ways of thinking and understanding, and encouraging invention.

Looking at the national literature, only two papers were found within the previously mentioned criteria. Both papers focused on preschool teachers. Yavuz Konokman and Yanpar Yelken (2014) addressed an inadequate number of studies focusing on teachers' attitude towards entrepreneurship and their perception of self-efficacy. They conducted research with 170 preservice preschool teachers and found that they had a positive attitude towards entrepreneurship with high entrepreneurship level. No significant result was found on the impact of gender difference, but the results showed that the participants' attitudes significantly differ between the years of education. In another study, Kaya-Capocci and Karaoglu (2022) investigated the pre-service preschool teachers' stereotypical perceptions about entrepreneurs. The study was conducted with 47 fourth grade pre-service preschool teachers in Turkey. The participants drew an entrepreneur on the Draw an Entrepreneur Scale and explained their drawings. The results showed that participants had stereotypical thoughts and a low-level understanding of entrepreneurship. The participants viewed an entrepreneurial person commonly from a financial entrepreneurship perspective, with a limited perception of social and innovative entrepreneurship perspectives. Another stereotypical thought was about the gender of an entrepreneur. Participants commonly drew an entrepreneur as a male. The researchers recommended developing an entrepreneurial mindset in undergraduate level courses.

Overall, there was a lack of studies focusing on entrepreneurship in preschool education. As opposed to what some researchers believe, the non-systematic literature review showed that entrepreneurship in education can improve teachers' discursive teaching and students' self-emotional skills and entrepreneurial skills, such as creativity, leadership, taking initiatives, and problem-solving, as well as students' curiosity, active participation, and motivation. To equip young students with entrepreneurial skills, teachers need to have entrepreneurial features and should be able to implement new approaches and methods in classrooms. Entrepreneurial preschool teachers should be someone who can see through the whole process through a different prism and encourage the learning process "by doing, exchanging, experiencing, and experimenting, and through risk taking, problem solving, dramatisation, and interaction with the environment" (Senkane, 2014, p. 193, cited in Insulander, Ehrlin, & Sandberg, 2015). Such teachers can support the next generation in new possibilities both today and tomorrow, constitute values, and take responsibility for future challenges to shape someone's identity and bring up a creative person (Insulander, Ehrlin, & Sandberg, 2015). To create entrepreneurial teachers, teacher education programmes play a critical role. Tican (2019) recommended to investigate entrepreneurship and creative thinking skills of the pre-service teachers studying in the new teacher training programme. In order to implement entrepreneurship into

undergraduate teacher education programmes, we first need to investigate preservice teachers' entrepreneurial features.

### 3. Methodology

Mixed method is a commonly used method in education due to having the advantages of both qualitative and quantitative methods. While the quantitative method is presenting whether there is a significant phenomenon emerging, qualitative data shows the reason for the emergence of the phenomena. This method provides a complete understanding of the phenomena that the researcher is investigating by providing different perspectives on the situation (Johnson & Onwuegbuzie, 2004). The mixed method also provides rich data and prevents losing the data that can potentially be useful (Bryman, 2012; Cohen, Manion & Morrison, 2011).

The paper explores preservice preschool teachers' entrepreneurship features and their lecturers' (academics) views on whether or not they have it. This paper also aims to explore the factors affecting teachers' entrepreneurship features and propose suggestions for developing more effective entrepreneurship courses in teacher education programmes. To do so, the following research questions (RQs) are investigated:

RQ-1: How are the entrepreneurship features of preservice preschool teachers in comparison with their lecturers' views on preservice preschool teachers being equipped with these features?

RQ-2: Do the entrepreneurship features differ according to gender, year of study, taking entrepreneurship courses previously, and/or having an entrepreneur in the family?

RQ-3: What are the suggestions of preschool education lecturers on developing the entrepreneurship features of pre-service preschool teachers?

In this mixed method research, an entrepreneurship level scale was employed with 184 preservice preschool teachers, and interviews were conducted with four lecturers. The results are analysed with the Statistical Package for the Social Sciences (SPSS) and thematic analysis.

#### 3.1 Participants and Data Collection Tools

184 preservice teachers who are studying in a preschool education programme (year 1 to 4) at a public university in Turkey participated in this research. This university is in a socio-economically underdeveloped location in the east of Turkey. Furthermore, students studying in this area are commonly coming from economically disadvantaged families. After collecting the quantitative data, four lecturers teaching in the same programme volunteered to participate in the interviews. To protect their anonymity, the lecturers were named LA, LB, LC, and LD.

The quantitative data were collected via "The Entrepreneurship for Teacher Candidates Scale" developed by Deveci and Cepni (2015). A section was added to the scale about the background information to determine the factors affecting the entrepreneurship features, such as gender and the existence of an entrepreneur in the family. After adding this section, the scale included two sections: 1. Background information and 2. Entrepreneurship features. Background information about the participants is presented in Table 1.

Table 1: Background information about the participants

Characteristics		f	%
Gender	<i>Female</i>	141	76.6
	<i>Male</i>	43	23.4
Year of study	<i>1</i>	39	21.2
	<i>2</i>	39	21.2
	<i>3</i>	42	22.8
	<i>4</i>	64	34.8
Involvement in any entrepreneurship education (courses, seminars, etc.)	<i>Yes</i>	66	35.9
	<i>No</i>	118	64.1

Involvement of a family member in an entrepreneurial activity	<i>Yes</i>	57	31
	<i>No</i>	81	44
	<i>I am not aware</i>	46	25

The second section (Entrepreneurship features) was a 5-point Likert scale (Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree) consisting of 38 statements. This section focused on five features and each feature involved seven to nine statements (Risk Taking - 7 statements, Seeing Opportunities - 9 statements, Confidence - 7 statements, Emotional Intelligence - 8 statements, and Being Innovative - 7 statements). The Cronbach alpha of each factor on the scale is over .77. According to Ozdamar (2011) if the Cronbach alpha is between .7 and .9 ( $.70 \leq \alpha < .90$ ), the reliability of the scale is accepted high.

The qualitative data were collected via semi-structured interviews. The interview questions were generated based on “The Entrepreneurship for Teacher Candidates Scale” and included eight questions with some sub-questions. The questions targeted the lecturers’ opinion of entrepreneurship features and their importance in preschool education, the participants’ entrepreneurship features, their agreement with the findings about participants’ features, and their suggestions on what can be done to improve such features.

### 3.2 Data Collection and Analysis

All ethical procedures were followed throughout the study. The study also had an approval from the research ethics committee of the university where the study was conducted. After collecting the consent forms, participants filled in “The Entrepreneurship for Teacher Candidates Scale” taking approximately 15 minutes. Following the quantitative data collection, the lecturers who were teaching in the preschool education programme (year 1 to 4) were requested to volunteer for the research. After collecting the consent forms, the interviews were conducted with four volunteer lecturers. Each interview took approximately 25-30 minutes.

Both qualitative and quantitative analysis were used to respond to the RQs. Quantitative data collected from participants (pre-service preschool teachers) were analysed through SPSS, and the qualitative data collected from lectures were analysed through thematic analysis. To answer the RQ-1, the descriptive statistics were used to identify the mean of participants’ overall and specific entrepreneurship feature scores in the scale. Both participant and lecturer results were coded as low, medium and high for each feature, and the results were compared. To answer the RQ-2, two-way ANOVA was employed due to the normal distribution of the quantitative data ( $P=0.2$ ). To ensure that nothing is missed out in the analysis, pairwise comparison of background information was also conducted. To answer the RQ-3, the qualitative data were analysed via thematic analysis. To do so, the lecturers’ responses were transcribed, read, re-read, and coded into different themes. The themes were revised a few times and then, finalised.

## 4. Results

The results are presented and discussed under three main headings based on the RQs. Aligned with the RQ-1, the findings of participants’ views are presented on the entrepreneurship features that they are equipped with and their lecturers’ views on whether the students show these features, and the results of participants and their lecturers’ views are compared. Regarding the RQ-2, the results of whether participants’ entrepreneurship features differ according to gender, year of study, taking entrepreneurship courses previously, and/or having an entrepreneur in the family and the binary combinations of these factors are introduced. As part of RQ-3, preschool education lecturers’ suggestions on and the implementation of how pre-service preschool teachers’ entrepreneurship features can be developed are presented.

### 4.1 How are the entrepreneurship features of preservice preschool teachers in comparison with their lecturers’ views on preservice preschool teachers being equipped with these features?



To analyse the entrepreneurship features of the participants, the overall participant scores were analysed (see the results in Table 2). The highest score that the participants could get was 5 and the lowest is 1.

Table 2: Descriptive statistics of participants' scores

	N	Minimum	Maximum	Mean	Std. Deviation
Mean	184	2,29	5,00	3,9501	,43565

The scores are divided into three categories: low, medium, and high. The interval numbers of categories are as follows:

- Low level of entrepreneurship features:  $1 \leq \text{mean} < 2.3$
- Medium level of entrepreneurship features:  $2.3 \leq \text{mean} \leq 3.6$
- High level of entrepreneurship features:  $3.6 < \text{mean} \leq 5$

Based on this categorisation, Table 2 shows a high level of entrepreneurship features. Even though the overall level of entrepreneurship features is found high, the results may differ from feature to feature. Therefore, the level of each entrepreneurship feature is explored separately and illustrated in Table 3.

Table 3: Descriptive statistics of participants' scores for each entrepreneurship feature

Entrepreneurship features	N	Minimum	Maximum	Mean	Std. Deviation
<i>Risk taking</i>	184	2	5	3,89	,542
<i>Realising opportunities</i>	184	2	5	4,11	,507
<i>Self-confidence</i>	184	2	5	3,98	,554
<i>Emotional intelligence</i>	184	2	5	4,06	,534
<i>Being innovative</i>	184	2	5	3,72	,596

According to Table 3, participants agreed or strongly agreed that they have each of five entrepreneurship features. The results showed that the highest level of entrepreneurship feature was "realising opportunities" and the lowest level of entrepreneurship was "being innovative". That is, most participants were of the opinion that they could usually realise the opportunities awaiting them. However, even though participants believe that they are innovative individuals, they showed more hesitation compared to other entrepreneurship features.

It is important to highlight that this scale is designed to measure the perception of the participants on whether they have the entrepreneurship features. Therefore, participants considering themselves having these features may not necessarily mean that they are equipped with them. That is, this might only be their perception. To make the result more reliable, participants' results are compared with their lecturers' views coming from their non-structured observations in their teaching hours. Within this purpose, the lecturers were asked about their opinion on whether the pre-service preschool teachers taking their classess show entrepreneurial features, such as risk taking and being innovative. The results are presented in Table 4.

Table 4: Lecturers' opinions on the level of participants' entrepreneurship features

Entrepreneurship features	Participants' opinions	LA	LB	LC	LD
<i>Risk taking</i>	High	Medium	Low	Low	Medium
<i>Realising opportunities</i>	High	Medium	Medium	Medium to Low	Medium
<i>Self-confidence</i>	High	High	High	High	High
<i>Emotional intelligence</i>	High	High	High	Low	High
<i>Being innovative</i>	High	High	Low	High	High

Table 4 shows that although participants were of the opinion that they are equipped with all five entrepreneurship features, lecturers usually disagreed with participants, except for self-confidence. Lecturers believed that participants show low or medium level features of risk taking and realising opportunities. LC and LD explained this with the social-economic status of the families whose children are studying at the university where the study was conducted. LC explained this by stating that "when students grow up with money concerns, they have a tendency to go for a safer-option rather than taking risks". Furthermore, the lecturers believe that to expect students

to realise opportunities, firstly, there should be existing opportunities. The university where the study was conducted is in an underdeveloped area. The area has many challenges, such as hard winter conditions, poverty, and lack of infrastructure. Considering such conditions, it is hard to compare students' persuasion of opportunities in socio-economically developed cities with underdeveloped cities. It would not be surprising if students have a low level of realising opportunities. However, surprisingly, participants believe that they have a high level of risk taking and realising opportunity features. In Table 4, both participants and lecturers had the same opinion about participants' self-confidence. LB was of the opinion that "this is not only about our students, it is more about the new generation. Interestingly, all the new generation has high self-confidence". Concerning emotional intelligence, all the lecturers except LC agreed that participants show a high level of this feature due to working with kids. However, LC addressed that:

My expertise is in the area of emotional intelligence, and I am also teaching this in the class. There are different aspects of emotional intelligence. When I look at the students, they have, for example, social skills but they lack self-regulation. They cannot regulate their emotions and actions.

All lecturers except LB believed that participants were innovative individuals. When LB was asked about the reason for her opinion, she said that "When I give projects or homework, students do not come up with anything new or innovative". Contrarily, LA stated that:

I run creative drama courses. In this course, we conduct different activities and students come up with very interesting ideas. For example, once students brought some rubbish to the class. They acted as a family going for a picnic and leaving their rubbish behind. They gave the rubbish to the others and discussed what could be done with it.

There may be different reasons for giving different answers to these questions, some of which may be the lecturers' experience in the relevant topic and the scope of the classes that they are teaching.

#### *4.2 Do the entrepreneurship features differ according to gender, year of study, taking entrepreneurship courses previously, and/or having an entrepreneur in the family?*

Two-way ANOVA is run through SPSS to identify the relationship between the participants' entrepreneurship features and the factors affecting them, such as gender and year of the study. The results did not indicate a significant difference ( $p > .05$ ) for any of the factors. This means that participants had similar scores and have similar levels of entrepreneurship features. The analysis did not show a significant difference ( $p > .05$ ) according to the gender of the participants. That is, the results indicate that the scores of entrepreneurship features of female participants were similar to male participants. This may point to that when female participants are provided with equal opportunities to male participants, they both can become entrepreneurs in the feature. There was no statistically significant result ( $p > .05$ ) on the relationship between the study of the year and participants' entrepreneurship features. This means that the scores obtained from the scale shows similar values according to the level of study. No significant difference was found ( $p > .05$ ) between participants' entrepreneurship features and their previous involvement in entrepreneurship courses. It may be said that the score of the entrepreneurship features of the participants who took an entrepreneurship course was not very different than the participants who did not. Here, the effectiveness of the entrepreneurship courses available can be questioned. Finally, the results did not indicate a statistically significant difference ( $p > .05$ ) between the participants' entrepreneurship features and having an entrepreneur in the family. That is, participants who have an entrepreneurial family member and who do not, have similar entrepreneurship features.

To ensure the results, pairwise comparison of four participant profile aspects were analysed separately. The results did not show a significant difference ( $p > .05$ ) for any aspect.

#### *4.3 What are the suggestions of preschool education lecturers on developing the entrepreneurship features of pre-service preschool teachers?*

Four lecturers were interviewed about what can be done and what methods, strategies, or activities can be used to improve entrepreneurial features. In this section, lecturers' suggestions for improving entrepreneurship features and the potential activities are examined respectively.

#### 4.3.1 Suggestions for improving entrepreneurship features

When the lecturers were asked about how students can improve entrepreneurial features, four themes came up: individual, family, academics, and faculty/university. The first theme was about what students can do personally. The lecturers believed that entrepreneurship features could be improved through personal and professional development. Within this context, it was suggested to join university clubs and ask academics for support. For example, LD mentioned that "students can try to play an instrument or learn different teaching methods, such as finger games. When they have personal and professional development, entrepreneurship features will follow". In the second theme, a few lecturers mentioned what families could do to reach this goal. Lecturers addressed that families could support students' curiosity, creativity, self-confidence, self-respect, and the sense of achievement by letting them do things their own way, not stopping them when they make mistakes, and encouraging them to learn from their mistakes. Additionally, families are suggested to be in touch with educators to learn about how they can play with kids. Within this context, while LC was recommending families to play emotional learning activities at home, LD addressed that:

It is important to develop self-confidence, self-respect, and personality from childhood in order to achieve self-actualisation. When the needs in Maslow's hierarchy of needs are met and self-actualisation is achieved, entrepreneurship features can be developed. Families play a role to help children actualise themselves.

The third theme was about what the lecturers can do. Lecturers mentioned that they could develop classroom activities, use different teaching methods and strategies, and develop relevant content. Two of the lecturers also mentioned the importance of giving voice to students in the classroom. LB mentioned that lecturers' motivation and students' attitude drive each other. Therefore, lecturers should, first, develop a positive entrepreneurship perspective and become motivated, and then, help students improve their features. LB stated that "changing our own perspective will affect our students. Our motivation has an impact on students, and their attitude changes our motivation. It is a vicious cycle".

As part of the fourth theme, lecturers addressed that the faculty could provide professional development by organising workshops, conferences, seminars, and fairs for academics and students. LA stated that "for example, the career centre can get in touch with me and say that they want me to organise a workshop for the lecturers or students to improve their creativity, and I can help with that". LA and LD mentioned supporting the collaboration between local government, entrepreneurs, companies, and students. For this purpose, LD, for example, suggested initiating a practice school as part of the university, and training students there and giving them an opportunity to practice their learning.

#### 4.3.2. Activities for improving entrepreneurship features

Lecturers were asked about the ways that entrepreneurship features can be integrated into different courses and what should be considered for this implementation. Many methods and strategies were mentioned by lecturers, for example, station technique, vision boards, enacting, creative drama, story completion, teamwork, project development, argumentation, student and entrepreneur meetings, field trips to observe social, scientific, and financial enterprises about preschool education, and reading books about entrepreneurs and discussing them. Lecturers also made suggestions about what should be considered when developing and implementing these activities:

- Creating environments where students can come up with ideas and test them
- Moving from theory to practice
- Inclusion of 21st century skills

- Adopting learning by doing
- Encouraging to learn from mistakes
- Using collaborative learning
- Relating to everyday life
- Utilising active learning

Some example activities were also provided, which are presented in the following.

**Project development:** Students can be asked to identify a few everyday issues and come up with potential solutions to them. The teachers encourage students to take an entrepreneurial perspective and take action to apply their solutions. Students may fail to solve the issue or implement their ideas. The teacher guides students about how they can learn from mistakes and start again to take actions. This activity can help develop students' resilience, perseverance, creativity, problem-solving, risk-taking, and realising opportunities.

**Story completion:** Students are presented with an unfinished object, such as half a bottle of water or a package of biscuits, an incomplete crocheting, or a used pair of shoes. Students can be asked different questions about the objects, such as who they belong to and what was experienced to leave these objects unfinished. This activity can help students develop emotional intelligence and creative thinking.

**Enacting:** Students select an author and research his/her publications. Then, students choose a few of the books and divide them into different pieces like a puzzle. These pieces are distributed to students without following an order. Students come together and complete each work by bringing the puzzle pieces. Then, students write a serenade about the work and enact it. In this activity, students develop creativity, problem solving, self-confidence, and emotional intelligence.

**Creative drama:** A teacher gives a task to the class on behalf of the World Health Organisation (WHO). The students are informed that an epidemic is transmitting across the world from the country of slobs, and WHO selected the students to educate the public in this country. Students go to the country and introduce the cleaning products. For example, a group of students go to the country and introduce the nail clips. They first ask how they cut their fingernails and get different answers such as using sharp stones to file them. In the end, students discuss how effective their method was. This activity supports students' entrepreneurship features such as innovation, creativity, self-confidence, and emotional intelligence.

## **5. Discussion**

The findings are discussed in three sections: 1. Outcomes of the research questions, 2. Preschool teacher education programmes, and 3. Professional development.

### *5.1 Outcomes of the Research Questions*

The results of the RQ-1 showed that although participants believed that they were equipped with high levels of entrepreneurship features, the only agreement the lecturers had with participants was on the self-confidence feature. There are various studies conducted at different education levels showing the importance of developing such features (Axelsson, Hagglund & Sandberg, 2015; Insulander, Ehrlin, & Sandberg, 2015; Kondracka-Szala & Malinowska, 2019; Yavuz Konokman & Yanpar Yelken, 2014). Priscilla Oguejiofor (2017) believed that the inclusion of entrepreneurship in preschool may support students' achievement in classes, decrease different issues such as social-emotional and mental health problems, foster self-sufficiency, and increase the potential for employability. Concerning the development of entrepreneurship features, the current scales only show the perception of students or teachers on whether they think they have the features. Furthermore, there is a difference between participants' views of what entrepreneurial features they have and their lecturers' views of what entrepreneurial features the participants (preservice preschool teachers) are equipped with. Therefore, this study

recommends creating rubrics to observe student behaviour and determine if they are really equipped with these features.

Findings of RQ-2 indicated that the four factors regarding background information did not have a significant impact on participants' entrepreneurship features. For instance, concerning gender, both female and male participants had a similar level of entrepreneurship features. This result was also found by other researchers, such as Yavuz Konokman and Yanpar Yelken (2014) and Yilmaz and Sunbul (2009). Yavuz Konokman and Yanpar Yelken (2014) concluded that gender is not a variable that has an impact on being entrepreneurial; however, in our society, a female might be perceived less entrepreneurial due to her role in the society viewed as a person who should be happy with what she already has. Yilmaz and Sunbul (2009) believed that male and female preservice teachers perceive themselves with similar entrepreneurial features and addressed the potential reason for this result as nowadays, male and female having equal conditions. Therefore, in order to increase the number of female entrepreneurs, it can be suggested to create entrepreneurial learning environments with equal conditions and opportunities for both female and male. The second factor, year of the study, did not have a significant relationship with participants' entrepreneurship features. This result means that the first-year students' perception of their entrepreneurial features was similar to fourth year students. That is, the features that we develop in one-year equals to the features that we develop in four years. Considering the education that a fourth-year student has been exposed, an increase in the features could be expected here. For example, Yavuz Konokman and Yanpar Yelken (2014) found a statistically significant difference between preservice teachers' perception and the year of the study. There may be various reasons for this outcome, for instance, the content of and targeted learning intentions in the programme, lecturers' focus on the activity rather than the development of the features (Garcia-Rodriguez, Gutierrez-Tano, & Ruiz-Rosa, 2018), or the scope of the activities (not embracing the development of such features). Considering the third factor, the results showed no significant difference between participants who have and have not been exposed to enterprise education. Following up with the previous result, this outcome might be an indicator of ineffective implementation of learning methods and strategies or lecturers' perception of the importance of entrepreneurship features. Therefore, based on the second and third factors, it can be suggested to include entrepreneurship features in preschool education and preschool teacher education programmes, revise the content of and targeted learning intentions in the programme accordingly, develop practices (activities) targeting these features, and increasing preservice teachers' awareness of the importance of the features. The results of the fourth factor indicated that the existence of an entrepreneur in the family does not have a statistically significant impact on developing entrepreneurship features. Commonly, it may be believed that having an entrepreneur in the family should have an impact on individuals as education starts in the family and they have a key influence on our lives (Garcia-Rodriguez, Gutierrez-Tano, & Ruiz-Rosa, 2018). Lindquist, Sol and Van Praag (2012) found that having an entrepreneur in the family increases 60% the possibility of a student starting a business in the future. It should be remembered that this study was on students' and teachers' perception of to what extent they think students are equipped with the entrepreneurship features. Having an entrepreneur family member might influence students' intention of starting a business but may not have a crucial impact on their features. However, the socio-economic situation of a family or the city lived in might have a relationship with developing entrepreneurship features and requires further research.

RQ-3 targeted the lecturers' suggestions for the potential activities that can be developed to improve entrepreneurship features, and what should be considered when developing and implementing these activities. Lecturers made suggestions on what should be considered when implementing the activities, such as moving from theory to practice and using collaborative, active, and project-based learning. Similarly, while Pepin and St-Jean (2019) was recommending using entrepreneurial projects to foster leadership, creativity, and achievement, Priscilla Oguejiofor (2017) recommended teamwork, and active and participative learning for enterprise education. However, Pepin and St-Jean (2019) found that entrepreneurial initiatives are usually integrated into pedagogical practices poorly, and students' participation in only one entrepreneurial project does not significantly impact their entrepreneurial attitudes. Within this context, it can be said that such entrepreneurship features can be developed through different activities in teacher education programmes, but more than one activity should be implemented to develop one feature effectively.

### 5.2 *Preschool Teacher Education Programmes*

Early ages are important for children to become entrepreneurial and capable learners, but current policies do not fully cover the development of these features (O’Connell, Fox, Hinz & Cole, 2016). Similarly, entrepreneurship is currently not involved in preschool education in Turkey. This may not be surprising considering that preschool education is fairly new in the Turkish education system. However, as discussed previously, there is a need for implementing enterprise education in preschool teacher education programmes. While integrating enterprise education, Kaya-Capocci (2022) suggests clarifying characteristics and the aims of enterprise education in preschool education and then, creating a policy and a curriculum for schools and higher education.

Many researchers supported the inclusion of entrepreneurship in early education programmes. For example, Garcia-Rodriguez, Gutierrez-Tano, and Ruiz-Rosa (2018) found that attendance in an entrepreneurship programme increased achievement, personal control, attitude, and the intention and feasibility to start a business. Huber, Sloof & VanPraag (2014) implemented BizWorld programme targeting nine non-cognitive skills, and seven of these skills (Risk taking propensity, Creativity, Need for Achievement, Self-Efficacy, Pro-activity, Persistence, and Analysing) increased significantly. Putri and Djoehaeni (2018) reported that unresolved character values installation issues at early ages result in negative behaviours, such as selfishness and consumptiveness and can be overcome through a meaningful entrepreneur programme applied at early ages. Despite its benefits, there are challenges for this implementation, such as affordable access and funding for preschools, availability of special programmes, and family and community knowledge on children’s early learning (O’Connell et al., 2016). Furthermore, “it puts a lot of responsibility on the preschool teachers both in matters of knowledge, methods and attitudes. Are they equipped for it?” (Axelsson, Hagglund, & Sandberg, 2015). For them to be equipped, (1) enterprise education should be in teacher education curriculum and (2) experimental and conceptual works should be developed and incorporated within this context (Deveci & Seikkula-Leino, 2017).

A recent document about the national education council suggested restructuring the preschool teacher education programmes according to the recent needs (The Ministry of Education, 2022). Yet, entrepreneurship was neglected in the document as one of the needs. The issues hindering this integration may include lack of professional entrepreneurship practice for preservice preschool teachers, practical guidance of entrepreneurship in preschool education curriculum, and entrepreneurship competencies that are required for implementation (Yan, 2018). Teacher education programmes should inspire pre-service teachers to work with various pedagogical methods and strategies (Tican, 2019), where self-emotion skills, such as self-efficacy, self-image, and self-confidence are developed (Lindstrom, 2013). In this study, lecturers suggest using methods and strategies, such as, station technique, vision boards, enacting, creative drama, story completion, teamwork, project development, and student and entrepreneur meetings. Garcia-Rodriguez, Gutierrez-Tano, and Ruiz-Rosa (2018) used an activity where students created and managed a cooperative to design and make products which they later sold at a fair. Suzanti and Maesaroh (2017) used an activity where students were requested to sing when they were going to cross a wooden bridge. The activity aimed to encourage students to be brave and take risks for the purpose to be achieved. To achieve an effective programme, the activities that will be implemented are of importance.

### 5.3 *Professional Development*

A few lecturers mentioned the importance of professional development to enhance students’ entrepreneurial features. If we were to integrate enterprise education into preschool education policies, programmes, and school curriculums, teachers are the first agents who start the implementation. European Commission (2015) views teachers as key factors who inspire students as behaviour models and mentors. Particularly, young students’ relationship with their teachers highly influences their entrepreneurial spirit (Kristová & Malach, 2017). To implement enterprise education, teachers should at least have basic knowledge of entrepreneurship and entrepreneurial competences (ibid). Therefore, if teachers have a lack of knowledge, skills, or attitude, this could decrease the effectiveness of the implementation and negatively influence students’ entrepreneurial spirit. Therefore, professional development of teachers and teacher candidates is highly important.

Professional development can be provided through different ways, such as seminars, workshops, and courses. In Sweden, “several pre-schools have started to work consciously with entrepreneurial learning as a way of setting up a policy profile, and preschool teachers may attend university courses in entrepreneurial learning as a part of their developmental work” (Insulander, Ehrlin, & Sandberg, 2015). Likewise, internships and study visits may help foster the entrepreneurial spirit. The seminars, workshops, or courses can focus on developing teachers’ own entrepreneurship features or teaching them how to improve their students’ features. While various researchers suggest preservice teachers using the Finnish model of entrepreneurship education to develop their own features, some others recommend them to adopt The Entrepreneurship Competence Framework to develop their students’ entrepreneurship features (Stamatovic & Zlatic, 2021).

## 6. Conclusion

This paper aimed to explore preservice preschool teachers’ entrepreneurship features and make suggestions for implementing enterprise education in teacher education programmes. Overall, the results showed that preservice preschool teachers’ perception of their level of entrepreneurship features was high, which was not agreed by lecturers except for self-confidence. As the current scales only show the perception of students or teachers on whether they think they have the features, this study recommends creating rubrics to observe and score the entrepreneurship features during an activity targeting the development of a specific feature. The results of two-way ANOVA did not indicate any significant difference ( $p > .05$ ) for any of the factors investigated (i.e., gender, year of study, taking entrepreneurship courses previously, and/or having an entrepreneur in the family). This means that participants had similar scores and have similar levels of entrepreneurship features. Not having any impact of year of study and entrepreneurship courses attended previously may suggest the revision of preschool teacher education programmes and the content development targeting entrepreneurship features. Finally, practice-based, active, and collaborative teaching is suggested rather than theory-based teaching for enterprise education in preschool teacher education programmes. Teacher-academics meetings, seminars and workshops about enterprise education are suggested for professional development of preschool teachers. It should not be forgotten that “an entrepreneurial society can only be created with teachers having high entrepreneurial spirit” (Onel, 2018), which should start at the preschool level to make an investment for future life (Sarikaya & Coskun, 2015).

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