

A Comparative Study of Entrepreneurship Education Curriculum and Social-emotional Learning for Children

Batool Sabzeh¹, Nasrin Ansari²

1. Assistant Professor, Department of Educational Sciences, Farhangian University, P.O. Box 14665-889, Tehran, Iran,

Corresponding author email: b.sabzeh@cfu.ac.ir

2. Assistant Professor, Department of Educational Sciences, Farhangian University, P.O. Box 14665-889, Tehran, Iran

Article Info

Article type:

Research Article

Article history:

Received 09 Oct. 2023

Received in revised form 17

Feb. 2024

Accepted 14 Mar. 2024

Published online 01 Jun. 2024

Keywords:

Curriculum,
Social-emotional learning,
Entrepreneurial education,
Comparative study

ABSTRACT

Objective: This comparative analysis scrutinized the entrepreneurship education curriculum and social-emotional learning, aiming to distinguish the similarities and discrepancies between the two programs based on the ten components of the Acker curriculum.

Methods: This study involved a detailed comparison that was conducted through the utilization of the Brody method.

Results: The study revealed that both initiatives share commonalities concerning the instructor's role, educational materials, group dynamics, geographical setting, and scheduling. Nonetheless, distinctions exist in their underlying principles, goals, subject matter, educational tasks, and evaluation techniques. Nevertheless, both schemes contribute to enhancing the individual and social growth of children, enabling them to cultivate mutual competencies in self-awareness, self-esteem, self-regulation, strategic planning, social consciousness, interpersonal communication, decision-making, and problem-solving skills.

Conclusions: The outcomes of this investigation serve as a foundational exploration and open up the opportunity to amalgamate these two programs, thereby crafting a more beneficial and efficient educational framework to equip individuals with the necessary skills for a productive role in forthcoming societies. Moreover, this integration would avert the need for multiple and/or conflicting programs.

Cite this article: Sabzeh, B. & Ansari, N. (2024). A comparative study of entrepreneurship education curriculum and social-emotional learning for children. *Iranian Journal of Educational Research*, 3 (2), 51-74.

DOI: <https://doi.org/10.22034/3.2.51>



© The Author(s).

Publisher: University of Hormozgan.

DOI: <https://doi.org/10.22034/3.2.51>

Introduction

Apart from learning to read, write and count, teaching basic life skills to children is very important. This article addresses two key areas of learning for children: Social-emotional learning (SEL) and entrepreneurial education (EE). Acquiring the necessary competencies in the field of SEL and EE is one of the key competencies recommended by the European Commission (2006) for lifelong learning. In line with personal development, healthy and sustainable lifestyles, employment, active citizenship and social participation, these capabilities have been considered by education policymakers and decision-makers (EACEA, 2016). The idea of including issues such as entrepreneurship in the education system in recent decades has attracted the attention of many.

The meaning and concept of entrepreneurship for educating children is different from the general concept of "Entrepreneurship" as related to business or entrepreneurial knowledge (Leffler, 2014). Instead, terms such as "entrepreneurial education" (Arkila, 2000) and "entrepreneurial learning" (Leffler and Falk-Lundqvist, 2013; Heder et al., 2011; Axelsson, Hagglund & Sandberg, 2015), which focus mainly on personal development focus on the mindsets, skills and abilities needed by learners. In other words, EE for children, according to McClelland (1961), is a lifestyle that enhances and develops entrepreneurial attitudes, skills and abilities. An important part of the goals and programs of EE is to develop the attitude of "entrepreneurial self-efficacy" (Fisher et al., 2008) and the formation of an entrepreneurial mindset (Zhang, 2020) to strengthen skills such as creativity and innovation, social skills, self-awareness and self-esteem, teamwork, project management, collaboration, accountability, problem-solving and the creation of an entrepreneurial identity in children (Sutherland et al, 2016).

SEL is an integral part of education and is a lifelong process by which individuals learn how to get to know themselves better, communicate with others, and work together to achieve goals and support the community (retrieved in 2020 from CASEL's website <https://casel.org>). SEL creates competencies in the field of self-awareness, self-management, social awareness, communication skills and decision-making skills, and in each of these cases, knowledge and understanding of the subject and then creating a positive attitude and finally achieving skills in the goal.

Now, the question arises: What are the similarities and differences between EE and SEL programs? This is important when a school aims to foster a comprehensive development of students and in this regard, while paying attention to the SEL development of children and adolescents, also

addresses the important issue of entrepreneurship. In this case, understanding the similarities and differences between educational programs in these two categories will lead to better decisions and correct implementation of programs, avoiding duplication or omission of important categories, or even providing a clear answer to this question. Can these two programs come together and be merged or are they so different that they will require completely separate plannings and execution? Therefore, this article intends to investigate the two important curricula of SEL and EE. The basis of this research is the ten main components of the curriculum including rationale, aims and objectives, content, learning activities, the teacher's role, materials and resources, grouping of learners, location, time and assessment ([Acker, 2007](#)).

Theoretical framework for the research paper

Preschool and elementary education have a large contribution to children's education ([Heckman, 2006](#)) due to their broad, profound, and lasting impact on various aspects of children's development ([OECD, 2016](#)). As developmental psychologists have put it, "children rapidly develop foundational capabilities on which subsequent development builds" ([Shonkoff & Phillips 2010, p. 5](#)). Thus, childhood education plays a vital role in determining the paths of academic growth, future life, employment, and income ([Bierman et al., 2014](#)). It is necessary to consider appropriate education in various fields such as EE and SEL for children. Different research efforts have been made in these two fields. This requires "pedagogical alignment" in the important elements of the curriculum and the creation of a stable structure between them. The results of a recent UNICEF study conducted in nine countries in 2020 showed that suspension of in-person classes due to the COVID-19 epidemic has affected the well-being and SEL of children and young people, while the importance of developing social-emotional skills for current and future individuals is widely known and the prevalence of this epidemic has shown the need to expand and improve SEL from different perspectives, especially from the education system ([Caf, 2022](#)). Sarıkayaa and Coşkun (2015) emphasize the importance of learning during childhood, confirming that if education is provided in this period and has characteristics that support SEL, cognitive, physical, and linguistic development of children, it is likely to help children have a more fulfilling life. In this regard, social entrepreneurship education as one of the emerging approaches can develop children's abilities and enable them to provide innovative solutions to social problems. In

addition, social entrepreneurship education supports children's self-sufficiency, creativity, empathy, rational thinking and entrepreneurial skills. Offered in consequential courses, it has an important place in children's lives and affects the academic and social success of children in preschool and higher education.

Bigos & Michalik (2020) have shown the positive effect of self-awareness and self-motivation on entrepreneurial tendencies and have emphasized the development of emotional skills in curricula to support entrepreneurial goals. By highlighting the use of emotional competencies and emotional skills in encouraging and forming entrepreneurial intention in children, Fernández-Pérez & et al. (2019) have shown that emotional competencies, such as positive attitudes and perceived self-efficacy, play an effective role in entrepreneurship training programs. (Arpianen et al. 2013) examine students' experiences of EE and focus on gaining a better understanding of the main sources of emotion, as well as the role and dynamics of emotion in learning. Abdillah Royo, Sarip and Shaari (2015) also focused their research on three main areas of entrepreneurship research in Malaysia. The results of this study of human dynamism (e.g., personality differences) are a basis for understanding how personality affects entrepreneurs. As noted, reviewing various studies shows the relationship and impact of EE and SEL on each other.

Material and Methods

The present paper falls into the category of applied research in terms of its purpose and is considered descriptive in terms of data collection, for which a comparative approach was adopted. Comparative analysis is a fundamental tool that plays a key role in concept formation, inductive discovery of new hypotheses, or theory-building by focusing on similarities and differences (Collier, 1993). Considering the research purpose, the authors adopted Brody's method (1964), where four stages of description, interpretation, juxtaposition, and comparison are proposed (Aghazadeh, 2017 and Khol, 1977). The comparative approach of Brody's four-step method (1964) (i.e., Description, Interpretation, Juxtaposition, and Comparison) has been used (Aghazadeh, 2008; Khol, 1981). In the Description phase, the EE and SEL curricula were described. In the second stage, i.e., Interpretation, the main indicators and features of each of the two programs were identified based on the ten elements of Acker's (2007) curriculum. Then, in the Juxtaposition stage, the classification information is displayed next to each other according to the previous stages. In

the comparison stage, the similarities and differences between the two programs are extracted based on the previous stages. The similarities and differences between the two and the explanation of the integrated program were discussed.

Results

Stage one: Description of EE and SEL

EE Curriculum

Today, EE has been incorporated in the national school curriculum and in the official curriculum of many countries as one of the key competencies for lifelong learning (European Commission Recommendation, 2018). The main goal of EE programs is to create and develop entrepreneurial competencies (Lackéus, 2015) which is based on three main components of entrepreneurial knowledge, attitude and skills (European Commission, 2006; Sanchez, 2013; Fisher et al., 2008). In other words, the logic behind EE is the development of an entrepreneurial mindset in three aspects: individual, economic and social (UNESCO, 2020).

Creating and developing entrepreneurial skills is possible through continuous and age-appropriate learning. Therefore, in most EE programs for children, an entrepreneurial mindset (Sørensen & Gronemann, 2019) and self-efficacy (Chen, 2010) are considered. The component of entrepreneurial knowledge is concerned with children's familiarity with social roles, especially the role of entrepreneurs in society, entrepreneurial job opportunities, how to evaluate opportunities, etc. (Eurydice, 2016). The component of entrepreneurial attitude pertains to the formation of entrepreneurial passion, "I want", self-efficacy "I can" (Fisher et al., 2008), activism means "I do"; tolerating the certainty or ambiguity of "I dare" (Sanchez, 2011; Murnieks, 2007), the entrepreneurial identity meaning "I am / I am valuable" (Krueger, 2005; Krueger, 2007), the "I create" innovation attitude (Krueger, 2005; I overcome difficulties" (Markman et al., 2005). Entrepreneurial skills include interpersonal skills (as seen in working groups, leadership, socializing, listening, resolving disputes through negotiation, accountability); learning skills (such as active learning, adapting to new situations, coping with uncertainty / tolerance of ambiguity, independence); strategic skills (prioritizing needs, setting goals and focusing on goals) and skills related to opportunities (including ideation, creativity, identifying opportunities and taking action

to exploit opportunities, financial literacy, identification of resources, etc.) (Fisher et al., 2008; European Commission, 2007; Eurydice, 2016; Palmer & Johansson, 2018; Lackéus, 2015; JA-YE, 2006).

It should be noted that some of these skills not only serve as a goal of EE, but also as the main skills needed by learners in children's curricula. Nevertheless, skills such as creativity, which are known as characteristics of new and innovative methods, are the basic elements and drivers of ideation and the innovative aspect of the main goals of all entrepreneurship programs (Eurydice, 2016). In general, it seems that according to the educational levels, entrepreneurial skills appropriate to each level, especially in elementary school have been simplified and matched with titles that have more comprehensible examples for children.

There are often three approaches to providing content and topics for entrepreneurship education to children:

- In the inter-program approach, EE is included transversely and horizontally in different subjects
- In the second approach, EE is taught as a separate compulsory course or as part of compulsory courses.
- In the third approach, EE is presented as an optional topic or as part of optional topics (Eurydice, 2016).

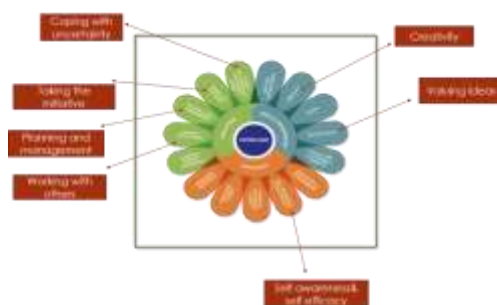
In addition to schools, various educational institutions and centers offer EE courses, the most successful and comprehensive of which is the Junior Achievement - Young Enterprise Program (JA-YE), adopted by many countries including EU and US countries (taken from JAEUROPE). This program is designed for different age groups, including preschool and elementary school children, and considers the three axes of EE, financial literacy and job preparation from simple to advanced levels. EE aims to help learners understand the role of individuals in the family and society, as well as discover ideas, solutions, decisions, responsibilities and partnerships with others. The programs for preschool and elementary school children include six consecutive themes, each with five practical activities at school, as well as activities after school. Activities are planned according to the age group at different levels, i.e., the individual, the family, the neighborhood, the community, the city and the region. Trainings are organized in the context of in-person or virtual classrooms. The course content is supported by national standards for math,

social studies, science and reading. Activities such as storytelling, painting, working on projects, role playing, etc. are used. The duration of each class is 45 minutes. The JA program claims that it promotes creative thinking, decision-making skills, verbal communication, teamwork, listening and talking, brainstorming, problem-solving, critical thinking, collaboration, and more.

BizWorld in the Netherlands is a program that has been pursued for elementary students since 2004. The goals of this program are to focus on entrepreneurial mindsets, goals such as self-efficacy, leadership and cooperation, social-emotional skills, skills management skills, job skills and networking, innovation, etc. This program lasts two to four weeks (four days a week) with 25 students in each class. Students are divided into groups of five and do their group projects for three hours in each session in a guided exploratory learning method, and finally the performance of the groups is evaluated and shared with others (BizWorld).

The CRADLE Teaching Methodology is an educational program for elementary children aged 8 to 12 that focuses on their entrepreneurial skills while teaching foreign languages. This program uses student-centered educational approaches, based on reciprocal projects and exploratory learning. The purpose of this program is to develop individual features such as problem-solving, personal responsibility, social responsibility, curiosity and communication and cooperation. Entrepreneurial competencies underpin creativity, idea evaluation, self-awareness and self-efficacy, working with others, planning and management, tolerance of ambiguity and innovation in children (as quoted in CRADLE)

Entrepreneurship is recognized as a key competency in the ENTERCAMP's pivotal report (Bacigalupo et al., 2016). The European Commission has categorized entrepreneurial competencies into three main areas of ideas and opportunities, resources, and practical applications, each of which has 5 competencies and a total of 15 competencies, which are included in the EE curricula. Some of these competencies are considered in light of to the children's age groups (ENTERCAMP, 2018)



Entrepreneurial competencies ENTERCAMP (2018)

These strategies are developed for in-class, out-of-class or at-school activities (Eurydice, 2016), to familiarize students with the local community or occupations. Moreover, practical entrepreneurial efforts can be mentioned as special experiences that may happen only once. Ideal teaching-learning methods in entrepreneurial education approaches fall into three categories: 1) Game-based activities, 2) Project-based activities, 3) Exploration, discovery and methods based on artistic and creative activities for children (Sabzeh, 2018).

Assessment of an entrepreneurship curriculum for children that emphasizes personal development, is an important part of the learning process and such an assessment is made from the perspectives of teachers, students (self-assessment) and peers or colleagues. Using a workbook, observing students regularly, monitoring by creating a personal skills booklet, doing individual and group projects, practical activities such as drawing and making collages, and finally oral and written tests are also common (Eurydice, 2016).

Social-Emotional Learning (SEL) Curriculum

In the second decade of the 21st century, UNESCO offered a new definition of literacy, listing emotional and communicative literacy as two of the 12 most important skills that characterize literacy. SEL, on the other hand, is an integral part of education and a lifelong process by which individuals learn to know themselves better, communicate with others, and work together to achieve goals and support the community (CASEL, 2022). Over two decades of research have shown that education has been effective in developing SEL skills. Meanwhile, Golman (1995) declared that children are more lonely, more depressed, more angry, more rebellious than before. They are more impulsive and more prone to anxiety and aggression (Golman, 1995). UNICEF has

recommended that schools help children and adolescents with their health and development (UNICEF, 2022). The UNICEF proposal makes sense, as many years are spent in school receiving education. Emotional social learning creates competency in 5 cases: Self-awareness, self-management, social awareness, communication skills and decision-making skills at four levels: Class, school, family and community.



CASEL's SEL Framework (CASEL, 2022)

Self-awareness is the ability to recognize one's feelings and thoughts and their effect on behavior. Self-management is the ability to regulate one's feelings, thoughts, and behaviors in a variety of situations, and includes stress management, impulse control, self-motivation, and adjustment and effort to achieve personal and academic goals. Social awareness is the ability to consider and empathize with others, to create a culture to understand social and moral norms, to recognize family, school and community. Communication skills include the ability to establish and maintain healthy and positive relationships with different individuals and groups, and include clear communication, active listening, cooperation, and resistance to inappropriate social pressures. Constructive negotiation of conflicts and requesting or providing assistance when needed is included in this component. Finally, responsible decision-making, the ability to choose how one behaves in their personal and social interactions based on ethical standards, safety, social norms are realistically explained along with evaluating the consequences of actions and taking into

account the well-being of ourselves and others (2022). Curricula have been developed to create SEL, each covering a portion of the goals mentioned.

4Rs, Caring School Community, I Can Problem Solve, The Incredible Years Series, Michigan Model for Health, MindUP, Open Circle, PATHS, Positive Action

There are other similar examples of suitable programs for primary and preschool (CASEL n.d.). The PATHS curriculum, for example, was developed by the PATHS Institute in 1994 and claims to promote emotional and social competence, reduce aggression, and reduce behavioral problems in preschool to elementary school children, as well as enhance the child's academic performance in educational processes. The curriculum has been primarily developed for schools and classrooms and tailored to common school curricula (PATHS Program LLC, 2022). Examining other programs that each address the issue of children's social and emotional development and solving problems caused by underdevelopment or deviation from the developmental path leads to the following results: 1. Positive social behaviors 2. Reduced behavioral problems 3. Less unhappiness 4. Academic Achievement (CASEL, 2022)

To achieve these goals, appropriate content has been designed for each of the mentioned programs. For example, the 4Rs program, applicable to kindergartens up to the fifth grade, has 35 lessons for each level of education in addition to the current curriculum; and each lesson lasts 20 to 60 minutes with one lesson per week; and by forming a group, understanding and managing emotions, active listening, assertiveness, problem-solving, prevention of coercion and active participation tries to help children achieve their goals. Group discussions, as the name suggests, involve discussions between the groups of children. Group singing, participating in purposeful games, practicing to understand and strengthen emotions, and the like are considered in other programs. The role of the teacher is to guide and facilitate. During these programs, instructors may sometimes need to explicitly teach skills and talk to students about certain topics. For example, in controlling anger and bullying, it may sometimes be necessary to inform students. Teacher manuals, student workbooks, family guides, and a variety of media and tools (such as worksheets, audio files, music, game cards, educational videos, activity guides, charts, posters, and a variety of media, computer, and physical games - interactive software - online lesson portals - connecting classes and the like) are used in the implementation of curricula that are intended to achieve goals in different locations. Too Good for Violence is a program that focuses on the class, school, family, and community.

Social-emotional learning programs can be implemented in four locations, and depending on the type of program and its goals, some of them may receive more attention and emphasis. Some programs such as PATHS, run during the school year and class. Others, such as 4Rs, are pursued during the school year but outside of school time. However, many programs are integrated with the conventional curriculum or separately from the conventional curriculum and are completely independent, and are implemented in separate hours or separate locations, which will require different assessments depending on the type of implementation and location. At a glance, assessments of SEL programs can be done through:

1. Self-report
2. Observation
3. Measuring Student Behavior

Self-assessment, peer assessment, and meta-assessment (teacher assessment) or asking observers and assessors are the methods that can be used to measure student behaviors. For example, Too Good for Violence uses all the three methods. But in the Steps to Respect program, only Self-report is enough. In this program, Self-report and Measuring Student Behavior are used to measure improved academic performance, increased positive social behavior, reduced conduct problems, and reduced emotional distress (CASEL, n.d.).

Stage Two and Three: Interpretation and Juxtaposition in the EE and SEL Curricula

This section outlines separately all the ten elements of the EE and SEL curricula from Acker's perspective, which include Rationale, Aims & Objectives, Content, Learning activities, Materials & Resources, Grouping, Location, Time, and Assessment.

Table 1. Interpretation and Juxtaposition in the EE and SEL Curricula

Curriculum	Rationale
EE	Development of an entrepreneurial mindset at the individual, economic and social levels: Increasing the motivation and interaction of learners toward deep learning Key competence for lifelong learning Leads to increased social resilience, personal development, increased interaction in schools and happy, creative, opportunity-oriented, action-oriented and innovative learners.
SEL	It is an integral part of education and it is a lifelong process through which individuals get to know themselves better, communicate with others and work together to achieve goals and support the community. Social and emotional learning is of importance in a number of areas, including student achievement, neuroscience, health, employment, psychology, classroom management, learning theory, economics, and prevention of youth problem behaviors, thus helping with the mental health of children and adolescents (UNICEF, 2012). It has been considered one of the 12 literacy indices by UNESCO.
	Aims and Objectives
EE	The main objective of entrepreneurship programs is to create and develop entrepreneurial competencies based on the three main components of entrepreneurial knowledge, attitude and skills. These competencies fall into three main areas: ideas and opportunities, resources, and practical applications. Among these competencies are creative thinking, decision-making, verbal communication, teamwork, listening and speaking, idea development, problem-solving, critical thinking, self-efficacy, leadership and collaboration, socio-emotional skills, management skills, vocational, skills networking skills, and innovation.
SEL	Social-emotional learning creates competencies in five areas: Self-awareness; self-management; social awareness, communication skills, and decision-making skills. Outcomes related to these five competencies indicate positive social behaviors, reduction of behavioral problems, more happiness, and academic achievement.
	Content
EE	The contents of EE programs are in accordance with entrepreneurial competencies and are based on three main components: 1) Entrepreneurial knowledge which is concerned with issues such as familiarity with jobs and social roles, the environment, etc.; 2) Entrepreneurial attitudes are focused on curriculum topics and contents that boost self-confidence, innovativeness as a means of socialization, which are broadly associated with self-awareness, consciousness, self-esteem, self-affirmation, assertiveness, or a sense of mastery over a skill; 3) Entrepreneurial skills include interpersonal skills such as teamwork, accountability, learning skills, strategic skills, and opportunities-related skills. Content is presented in three ways: EE as a separate topic; Integrating entrepreneurship into other courses in interdisciplinary programs ; EE as an optional subject
SEL	Content in social-emotional learning programs revolves around the following 5 topics: Self-awareness; Self-management; Social awareness; Relationship skills; Responsible decision-making Content is presented in three ways: Independent Curriculum; Integration into a formal curriculum; and Presentation in classroom processes
	Learning activities
EE	Various activities such as discussion, reading, writing, and documenting about living environments, individual and group projects, real-life scenarios, artistic and handicraft activities, staging exhibitions, creative individual and group games, storytelling, field trips, camping, etc.
SEL	Based on the curriculum and its objectives, it could entail various activities that include reading, presenting material, storytelling by teachers and students, drawing shapes, preparing charts and group singing, participating in group discussions, and so on.
	Teacher's role

EE	Teachers adopting the EE approach provide learning opportunities in the form of individual or group projects; facilitate the learning process in a safe and informative environment through child-centered activities; help children learn from their mistakes; rearrange the learning process; encourage children to think and participate in responding to how, why and what they should do; organize various projects and activities based on experience and group interactions; direct activities toward developing creative, innovative and entrepreneurial ideas. Teaching strategies across an entrepreneurial approach often include Experiential learning, situated learning, problem / project-based learning, social constructivist learning, active learning activities outside the classroom, and practical entrepreneurial experiences.
SEL	Teachers can play roles such as leading group discussions; connecting classrooms (Flat Stanley); supervising the activities of students in carrying out projects; adopting direct teaching and education; and encouraging students to do their assignments. Generally, the teaching methods used include role-playing, project-based learning, group discussion, prescribed individual learning, and field trips. Collaborative learning is an integrated method, in which group discussion is more common.
Materials and Resources	
EE	Teacher manuals and workbooks for learners Entrepreneurship training packages including manuals, exercises, worksheets, CDs, etc. Educational videos, users, digital resources, computer games, websites
SEL	Teacher manuals, student workbooks, family guides Including Types of users, audio files, music, game cards, educational videos, activity guides, charts, posters and visual media, computer and physical games, interactive software, online lesson portals, and connecting classrooms (Flat Stanley)
Grouping	
EE	Educational levels and age groups from pre-primary to secondary school
SEL	Each curriculum is developed and structured based on its respective school grades starting from K-12. There are also programs suitable for adolescents or children, categorized and presented in each curriculum.
Location	
EE	In the school; out of the school, at home; in the community
SEL	In the classroom; out of the classroom in the school, at home; in the community
Time	
EE	In the curriculum and classrooms (without no specific time allocation) During supplementary or extracurricular programs (outside the official training hours) In the form of bi-weekly or monthly camps on summer or spring holidays
SEL	During the school year during class time or outside the school time
Assessment	
EE	Assessment of the entrepreneurship curriculum is done from three perspectives: <ul style="list-style-type: none"> • Teachers and educators • Students (self-assessment) • Peers and colleagues (observation) Assessment of learners is generally done by checking portfolios; observation of students; observation of individual and group works; assessment of cooperation and participation in activities; oral or written exams; personal skills booklet; practical activities; individual and group projects, posters, drawings or collages.
SEL	<ul style="list-style-type: none"> • Self-report • Observation • Measuring student behavior To use these tools, self-assessment, peer assessment, and teacher assessment methods or the use of observers and assessors to measure students' behavior or observation can be used, which is done at three levels: minimal, Adequate, and Extensive.

Stage four: Comparison of the EE and SEL curricula

The following tables present the similarities and differences between the EE and SEL curricula.

Table 2. Similarities and differences between the EE and SEL curricula

	Similarities	Differences
Rationale	<p>Focused on the individual, economic and social development</p> <p>One of the eight key competencies for lifelong learning</p> <p>Considered as a need in societies and the world</p> <p>Increases social literacy and interaction in schools</p> <p>Fosters happy and creative learners</p> <p>Helps to improve people's lives</p> <p>Enables learning through education</p>	<p>EE improves people's lives by creating entrepreneurial competencies but SEL improves people's lives by creating emotional-social competencies.</p>
Aims and objectives	<p>Competencies in the following areas:</p> <p>Self-awareness and self-esteem</p> <p>Self-management</p> <p>Social Awareness</p> <p>Communication skills</p> <p>Decision-making and problem-solving skills</p>	<p>Competencies in EE specifically integrate aspects related to entrepreneurial activities, while in SEL it deals more broadly with all aspects of personal growth.</p> <p>SEL focuses more on shaping positive social behaviors, reducing behavioral problems and feelings of unhappiness, while entrepreneurship focuses on fostering creative thinking, decision-making, ideation, problem-solving, socio-emotional skills, innovation, etc. that are in line with entrepreneurial objectives.</p> <p>Academic achievement has been particularly addressed in SEL programs, but have been only implicitly addressed in the entrepreneurship program.</p> <p>In the EE program, competencies are shaped based on the three components of knowledge, attitude and skills, while in the SEL program, three components are pursued only during the implementation of the program.</p>
Content	<p>Part of the entrepreneurial content deals with: Strengthening self-confidence, tolerating ambiguity, coping with problems and obstacles, teamwork, communication with others, companionship and participation, leadership and management, attention, responsibility, conversational skills, etc., all of which are also addressed in the SEL.</p> <p>Content is presented in both in three modes: separate, integrated or inter-program.</p>	<p>In the EE curriculum, the content of the program is divided and presented based on the three components of knowledge, attitude, skill. In the SEL curriculum, on the other hand, these components are not specifically addressed and they seem to have been integrated with it.</p>

Learning activities	In both curricula, an activity may refer to tasks such as discussion, reading, writing, individual and group projects with different topics; creative individual and group games; storytelling; field trips and camping; discussing and sharing information with others, etc.	In the EE curriculum, activities focus on topics related to entrepreneurship, for example, topics such as talking about jobs and roles in society, real-life scenarios, and engaging in entrepreneurial ventures. In the SEL curriculum, however, no specific topics are pursued. Rather, the student's daily life is relevant, and depending on the nature of the program and the breadth of individual development issues, there are activities such as connecting classrooms.
Teacher's role	In both, the role of the teacher is of a facilitator, provider of facilities or equipment, moderator of group discussions; supervisor of students' activities in carrying out projects; direct-method teaching and encouraging students to perform individual and group activities.	There are no differences
Materials and Resources	In both, materials and resources include: Books such as handbooks and workbooks for learners; Digital resources such as educational videos, computer games; audio files, music, websites, - interactive software - online course portals, etc. Non-digital resources such as types of users, game cards, activity guides, charts, posters, various visual media, physical games, and connecting classrooms (Flat Stanley).	There are no differences
Grouping	Both programs are tailored to the needs of the different grades (preschool, elementary and high school) and there are also programs tailored to different age groups.	There are no differences
Location	Location programs in both include: the classroom; out of the classroom at school; at home; in the community.	There are no differences
Time	Providing entrepreneurship and SEL training both in the curriculum in classrooms (without time allocation) and during supplementary or extracurricular programs (outside the formal hours)	Entrepreneurship training is provided in the form of two- or four-week-long camps during the summer or spring holidays, while they are offered during the school year in the SEL curriculum.
Assessment	In both programs, assessment is done in three ways: self-assessment, peer assessment, and teacher assessment or using an observer and assessor to observe students.	There are three levels of assessment for an SEL program, but there are no such levels with EE programs assessment. In SEL programs, most observations and assessments are based on measuring emotional and social behaviors and skills, while in EE programs, attention is paid to entrepreneurial skills and what they do in practice.

The findings in the table above show that the two programs are not significantly different in terms of the teacher's role, materials & resources, grouping, location, and time. They also have

similarities in other aspects such as rationale, objectives, content, learning activities, and assessment. Despite all of their similarities, EE and SEL are also different in some aspects. The main rationale in the SEL curriculum is to solve the individual and social life problems of people, while EE tries to improve people's lives by creating different competencies. In other words, compared to EE, SEL is in some way a response to the basic needs of the individual for a healthy life, while EE aims to create competencies to improve the quality of life. In SEL, the competencies mentioned in the five dimensions are widely pursued to promote individuals in all aspects of individual development, while EE seeks the development of competencies based on individual development from an entrepreneurial perspective. SEL assessment measures emotional and social behaviors and skills at different levels, while EE focuses on entrepreneurial skills and what has been done in practice.

Discussion

The investigations conducted in this study show that EE and SEL competencies have been incorporated in the preschool and primary school curricula of many countries around the world and have been seriously pursued. This shows the importance of these teachings for children. In line with the first goal of this research, all the elements of the EE curriculum and SEL in the existing programs in this field were examined in detail and their various aspects were described. Finally, in accordance with the second objective of the research; Comparison tables and the

integrated curriculum of EE and SEL are presented in the following figure (No. 1):

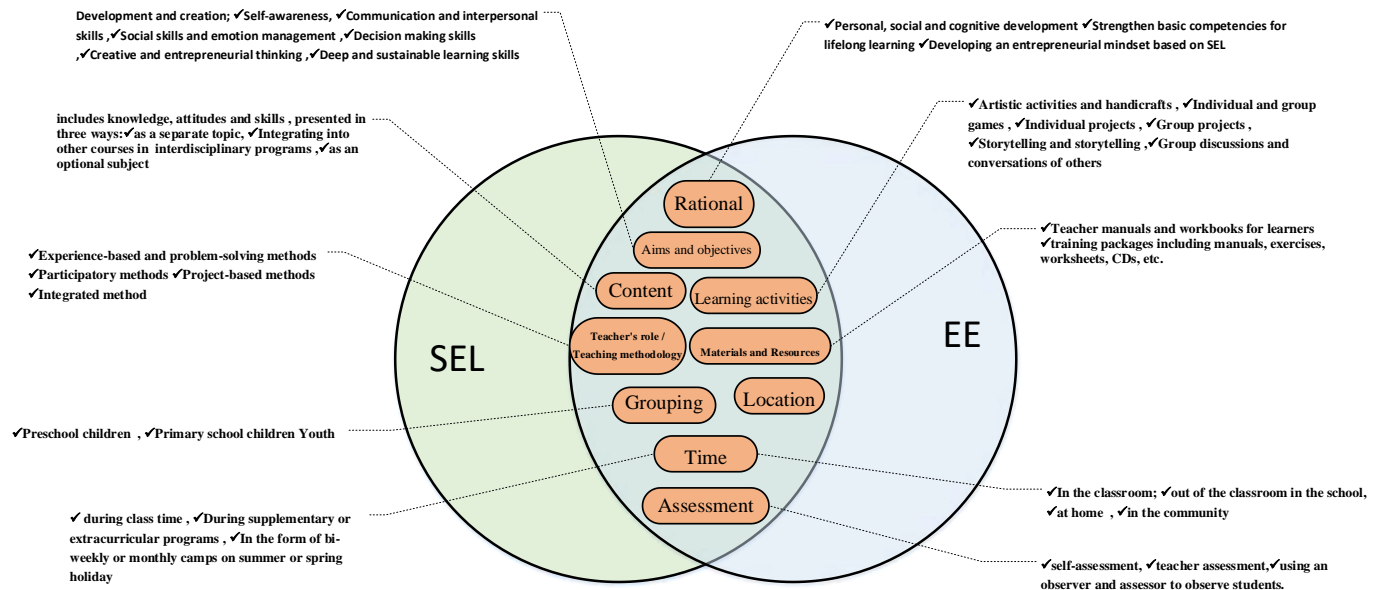


Fig. 1. Integrated EE and SEL curriculum

As shown in Figure 1, the EE and SEL curricula have significant similarities in their curricular aspects as presented in the integrated curriculum. In other words, the integrated curriculum in terms of its rationale, strengthens the basic competencies needed for lifelong learning in addition to the individual and social life growth of children; and ultimately develops the entrepreneurial mindset based on SEL. In terms of its objectives, it pursues the development of competencies in the areas of self-awareness and self-esteem, self-management and planning, social awareness, communication skills and decision-making and problem-solving skills, and creative and innovative thinking. The content is presented in three modes: separate, integrated and inter-program. The teacher serves as a facilitator for the children in learning activities such as discussion, reading, writing, individual and group projects, creative games, storytelling, etc., where they are conducted based on integrated methods that involve participation, gaining experience and problem solving. Written, oral, digital and non-digital resources are used as learning materials and resources in accordance with the objectives of the curriculum. The grouping of learners is appropriate for the educational background and age groups, and suitable spaces are provided for the

implementation of the curriculum, both in schools and classrooms, as well as outside the school and in the home and community environment.

An integrated program can also enhance students' academic achievement by creating core competencies. Additionally, Sarıkayaa and Coşkun (2015) showed that it can also be one of the implicit outcomes of the EE curriculum.

Finally, based on the findings of the present integrated study and the related literature, developing emotional and social skills in children helps to achieve the goals of entrepreneurial education curricula such as strengthening entrepreneurial thinking (Zhang, 2020), enhancing entrepreneurial intentions (Fernández-Pérez, Montes-Merino, Rodríguez-Ariza, et al., 2019), form entrepreneurial identity (Sutherland et al, 2016), develop an attitude of "entrepreneurial self-efficacy" (Fisher et al., 2008) and foster entrepreneurial tendencies (Bigos & Michalik, 2020). On the other hand, EE programs (such as Cradle, Junior Achievement, and BizWord) for children help develop or strengthen social skills, self-awareness and self-esteem, cooperation and accountability, and problem-solving (Sutherland et al.2016), feelings of empathy (Sarıkayaa and Coşkun, 2015; Arpianen et al. (2013) development of a sensible personality (Abdillah Royo and Sarip and Shaari, 2015) etc., which are also among the most important goals of the SEL program. As noted in the Eurodic report (2016), one of the main aspects of EE programs for children is developing SEL skills. Therefore, considering the extant number of programs offered to children around the world, it can sometimes confuse families and schools in choosing one of them. This integrated program, which is a combination of the SEL and EE curricula, can be considered a rich and comprehensive curriculum for schools and educational institutions for children to meet many of their basic needs.

Limitations and Future Research

This study is a review of the literature as an attempt to find the similarities and differences between the two curricula, which can be considered as a basis for other research and pave the way for merging the two curricula to create a more comprehensive program in educating people to participate effectively in future communities. Additionally, it aims to ensure complete and consistent implementation of programs. This is while studies have focused more on the effectiveness of each curriculum and less attention has been paid to this issue. The results of this study call the attention of policymakers and planners to design and present other appropriate curricula for children and adolescents, and through conducting deeper and more fundamental

research, propose a new program resulting from the integration of SEL and EE curricula that can improve the health and well-being of the next generation. Due to the limitations of this study arising from its reliance on library resources only, it is suggested that future research investigate the combination of these two curricula from an empirical point of view.

Data availability statement

The original contributions presented in the study are included in the article/supplementary material, further inquiries can be directed to the corresponding author.

Ethics statement

The studies involving human participants were reviewed and approved by the ethics committee of the University of Farhangian. The patients/participants provided their written informed consent to participate in this study.

Author contributions

BS and NA contributed to the study conception and design, material preparation, data collection, and analysis. All authors contributed to the article and approved the submitted version.

Funding

The authors did (not) receive support from any organization for the submitted work.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

References

- Abdillah Royo, M., Sarip,A., Shaari, R.,(2015)Entrepreneurship Traits and Social Learning Process: An Overview and Research Agenda ,Procedia - Social and Behavioral Sciences,Volume 171.Pages 745-753,ISSN 1877-0428,<https://doi.org/10.1016/j.sbspro.2015.01.187>.
- Aghazadeh, A. (1396). Comparative education. Tehran, Samat
- Arpianen, R., Lackeus, M., Täks, M.& Tynjälä, P. (2013) The sources and dynamics of emotions in entrepreneurship education. Journal of the Humanities and Social Sciences 17(67/62):331-346
- Axelsson, Hagglund & Sandberg.(2015). Entrepreneurial Learning in Education Preschool as a Take-Off for the Entrepreneurial Self. Journal of Education and 19Training. ISSN 2330-9709 2015, Vol. 2, No. 2. Pp 40- 58 <http://www.macrothink.org/jet>

- Bacigalupo, M., Kamyli, P., Punie, Y., & Van den Brande, G. (2016). *EntreComp: The entrepreneurship competence framework*. Publication Office of the European Union; Luxembourg, EUR 27939 <http://publications.jrc.ec.europa.eu/repository/bitstream/JRC101581/Ifna27939enn.pdf>.
- Bierman, KL, Nix, RL, Heinrichs, BS, Domitrovich, CE, Gest, SD, Welsh, JA & Gill, S (2014), 'Effects of Head Start REDI on children's outcomes 1 year later in different kindergarten contexts', *Child Development*, vol. 85, no. 1, pp. 140-159.
- Bigos, K., & Michalik, A. (2020). Do Emotional Competencies Influence Students' Entrepreneurial Intentions?. *Sustainability*, 12(23), 10025. <https://doi.org/10.3390/su122310025>
- Casel. (2022). What Is the CASEL Framework? . Retrieved February 17, 2022, from <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>
- Casel. (n.d.). Program Guide . Retrieved February 17, 2022, from <https://pg.casel.org/review-programs/>
- Collier, D. (1993) *Political Science: The State of the Discipline II*. Publisher: American Political Science Association Editors: Ada W. Finifter Chapter: 5 pages 105–118
- Council Recommendation of 22 May 2018 on key competences for lifelong learning (Text with EEA relevance.) ST/9009/2018/INIT.OJ C 189, 4.6.2018, p. 1–13 (BG, ES, CS, DA, DE, ET, EL, EN, FR, HR, IT, LV, LT, HU, MT, NL, PL, PT, RO, SK, SL, FI, SV). https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=uriserv:OJ.C_.2018.189.01.0001.01.ENG&toc=OJ:C:2018:189:TOC
- Erkkilä, K. (2000). *Entrepreneurial education: mapping the debates in the United States, the United Kingdom and Finland*, Abingdon, Taylor & Francis.
- European Commission (2006), "The Oslo agenda for entrepreneurship education in Europe", available at: http://ec.eu/enterprise/policies/sme/files/support_measures/training_education/doc/oslo
- European Commission/ EACEA/Eurydice. (2016). *Entrepreneurship education at school in Europe: Eurydice Report*. Luxembourg: Publications Office of the European Union. available on the Internet <http://ec.europa.eu/eurydice>.

- European Council (2016), “Recommendation of the European parliament”, available at: <http://eurlex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:394:0010:0018:en:pdf> (accessed July 2018).
- European Union, Committee of the Regions (2012). Encouraging entrepreneurship at local and regional level. Best Practice Examples from EER Regions. CoR_1616/October 2012/EN. Available at: <https://ec.europa.eu/social/main.jsp?catId=1314&langId=en>
- Fernández-Pérez, V., Montes-Merino, A., Rodríguez-Ariza, L. et al. (2019). Emotional competencies and cognitive antecedents in shaping student’s entrepreneurial intention: the moderating role of entrepreneurship education. *Int Entrep Manag J* 15, 281–305 (2019).
- Fisher, S., Graham, M. & Compeau, M. (2008). Starting from Scratch: Understanding the Learning Outcomes of Undergraduate Entrepreneurship Education'. In: Harrison, R. T. & Leitch, C. (eds.) *Entrepreneurial Learning: Conceptual Frameworks and Applications*. New York, NY: Routledge.
- Gelman, Daniel (1998). *Working With Emotional Intelligence*. New Yourk: Bantam Books
- Heckman, JJ 2006, ‘Skill formation and the economics of investing in disadvantaged children’, *Science*, vol. 312, no. 5782, pp. 1900- 1902.
- Heder, E., Ljubic, M. & Nola, L. 2011. *Entrepreneurial Learning - a Key Competence Approach*. Zagreb, Croatia: South East European Centre for Entrepreneurial Learning.
- Helle, L., Tynjälä, P., & Olkinuora, E. (2006). Project-based learning in post-secondary education— theory, practice and rubber sling shots. *Higher education*, 51(2), 287-314.
- Janssen, F., Eeckhout, V., & Gailly, B. (2007). Interdisciplinary approaches in entrepreneurship education programs. *Handbook of research in entrepreneurship education*, 2, 148-165.
- Jones, B. & Iredale, N. 2010. Enterprise education as pedagogy. *Education+ Training*, 52, 7-19.
- Jones, C. & English, J. 2004. A contemporary approach to entrepreneurship education. *Education + Training*, 46, 416-423.
- Junior Achievement - Young Enterprise (JA-YE Europe). [general website]. Available at: <http://www.ja-ye.org>
- Junior Achievement Young Enterprise (2006), “Entrepreneurs are made, not born”, Annual Report, Junior Achievement Young Enterprise, Brussels.

- Koehl, R. (1977). The comparative study of education: Prescription and practice. *Comparative Education Review*, 21(2/3), 177-194.
- Koopman, Ruud. Hammer, Matthijs. and Hakkert, Arjan. (2013). Teaching teachers in effectual entrepreneurship. In: 2nd Effectuation conference, June 3rd & 4th.
- Krueger, N. F. 2005. The cognitive psychology of entrepreneurship. In: Acs, Z. J. & Audretsch, D. B. (eds.) *Handbook of entrepreneurship research: An interdisciplinary Survey and introduction*. New York: Springer.
- Krueger, N. F. 2007. What lies beneath? The experiential essence of entrepreneurial thinking. *Entrepreneurship Theory and Practice*, 31, 123-138.
- Lackéus, M. (2015). Entrepreneurship in education: What, why, when, how. *Entrepreneurship* 360. background paper, available at: www.oecd.org/ (accessed 6 October 2017).
- Laura Rosendahl Huber, Randolph Sloof, and Mirjan Van Praag, (2012). "The Effect of Early Entrepreneurship Education: Evidence from a Randomized Field Experiment," Discussion Paper No. 6512 (IZA: 2012).
- Lave, J. & Wenger, E. 1991. *Situated learning: Legitimate peripheral participation*, Cambridge, Cambridge University Press.
- Leffler, E. & Falk-Lundqvist, Å. 2013. What about Students' Right to the "Right" Education? An Entrepreneurial Attitude to Teaching and Learning. *International Perspectives on Education and Society*, 23, 191-208.
- Leffler, E. (2014). Enterprise Learning and School Subjects – A Subject Didactic Issue? *Journal of Education and Training*, 1(2), 15-30. <http://dx.doi.org/10.5296/jet.v1i2.5194>.
- Markman, G. D., Baron, R. A. & Balkin, D. B. (2005). Are perseverance and self-efficacy costless? Assessing entrepreneurs' regretful thinking. *Journal of Organizational Behavior*, 26, 1-19.
- Melhuish, E., Ereky-Stevens, K., Petrogiannis, K., Ariescu, A., Penderi, E., Rentzou, K., ... & Broekhuisen, M. (2015). A review of research on the effects of early childhood education and care (ECEC) on child development. CARE project; Curriculum Quality Analysis and Impact Review of European Early Childhood Education and Care (ECEC).
- Murnieks, C. Y. (2007). Who am I? The quest for an entrepreneurial identity and an investigation of its relationship to entrepreneurial passion and goal-setting. Doctoral Thesis, University of Colorado.

- Palmér, H., & Johansson, M. (2018). Combining entrepreneurship and mathematics in primary school—what happens?. *Education Inquiry*, 9(4), 331-346.
- Sabzeh, B. (2019). Entrepreneurial Education as a New Approach to Preschool Education. *Journal of Curriculum Studies*, 13(51), 57-80.
- Sánchez, J. C. (2013). The impact of an entrepreneurship education program on entrepreneurial competencies and intention. *Journal of small business management*, 51(3), 447-465.
- Sarasvathy, S. D., & Venkataraman, S. (2011). Entrepreneurship as method: Open questions for an entrepreneurial future. *Entrepreneurship: Theory and Practice*, 34, 113–135.
- Sarıkaya, M, Coşkun, E.,(2015). A New Approach in Preschool Education: Social Entrepreneurship Education, *Procedia - Social and Behavioral Sciences*, Volume 195. Pages 888-894, ISSN 1877-0428, <https://doi.org/10.1016/j.sbspro.2015.06.368>.
- Schieb-Bienfait, N., & Clergeau, C. (2007). Implementing an Entrepreneurship Centre in a Large and Multidisciplinary University: What Issues to Address?. *Handbook of Research in Entrepreneurship Education*, 2, 130-147.
- Shonkoff, JP & Phillips, DA (eds) 2010, *From Neurons to Neighborhoods: The science of early childhood development*, National Academy Press, Washington, DC.
- Sørensen, K. B., & Gronemann, S. T. (2019, December). Developing an entrepreneurial mindset through the training of a design attitude. In *3E-ECSB Entrepreneurship Education Conference*, Trondheim, Norweig: Developing entrepreneurial mindsets through education.
- Sutherland, M., Head, G., Fagan, C., & Masgrau, M. (2016). *Teacher 2020. On the Road to Entrepreneurial Fluency in Teacher Education*.
- UNESCO. (2014). *Entrepreneurship Education Network Secretariat APEID*. UNESCO Publication. Bangkok 1 January.
- Unisef(n.d.) *Strengthening education systems and innovation* Retrieved February 17, 2022, from <https://www.unicef.org/education/strengthening-education-systems-innovation>.
- Van den Akker, J. (2007). Curriculum design research. An introduction to educational design research, 37.
- Zhang, J. (2020). Pedagogical alignment for entrepreneurial development. *Entrepreneurship Education*, 3(3), 239-244.

<https://jausa.ja.org>

<http://www.jaeurope.org>

<http://www.bizworld.org/programs/index.php>

<https://www.cradleproject.eu/> Creating Activity Designed Language Learning Environments for Entrepreneurship Education