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Identifying and Validating Content Components of an Entrepreneurship Education Curriculum for Elementary Schools

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ABSTRACT

Objective: The purpose of the present study was to identify the characteristics of the content element in a curriculum based on entrepreneurial individual education at the elementary level and to validate these characteristics.

Methods: This study employed a mixed-methods approach with a qualitative–quantitative design. In the qualitative phase, data were collected through semi-structured interviews. Using purposive sampling, 34 semi-structured interviews were conducted to identify the characteristics of the content element. In the quantitative phase, a researcher-developed validation checklist in the form of a questionnaire was used. The questionnaire was evaluated by 20 experts using two indices: the Content Validity Ratio (CVR) and the Content Validity Index (CVI).

Results: The obtained CVR and CVI values indicated a high level of content validity for the designed questionnaire. The findings revealed that the characteristics of the content element in an entrepreneurship-based elementary curriculum emphasize entrepreneurship education, strengthening the psychological dimension of entrepreneurship, enhancing cultural and social entrepreneurial skills, and developing economic entrepreneurial skills.

Conclusions: The identified content characteristics can play an effective role in nurturing entrepreneurial individuals at the elementary education level and provide a valid framework for designing entrepreneurship-oriented curricula.

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Introduction

In recent years, many countries have increasingly directed their curricula toward entrepreneurship education (Best, 2020), as one of the central goals of entrepreneurship education is to prepare learners for the development of entrepreneurial competencies (Titel & Trzidēs, 2020). Within educational environments, the emphasis on entrepreneurial competencies focuses on providing all students with opportunities to develop entrepreneurial abilities (Palmer & Johnson, 2018). Given the importance of entrepreneurship education and the need to explore its less examined dimensions—dimensions that may inform future educational policies and practices—understanding the effectiveness of entrepreneurship education programs can provide a foundation for designing new educational content and for evaluating entrepreneurship courses (Wong et al., 2022).

The curriculum constitutes one of the most fundamental pillars of education. Without a curriculum, meaningful educational activities cannot be effectively implemented at any educational level. The elementary school curriculum comprises a set of experiences through which children learn to participate in building a desirable society and to contribute to improved collective well-being (Fatemi, 2022). One widely accepted definition of curriculum emphasizes that it extends beyond a mere list of subjects to be taught. Although selecting useful and appropriate content is a primary responsibility of curriculum planners and teachers, content alone does not constitute a curriculum unless it becomes part of the learner's lived experiences (Baqaei, Mashinchi, & Hashemi, 2019). The mission of curriculum content is grounded in what learners are expected to acquire as part of an educational program. Curriculum content includes facts, generalizations, concepts, and subject-related information and must be fully aligned with curriculum objectives. Furthermore, curriculum content should be connected to theoretical knowledge, practical experiences, the development of mental capacities, problem-solving skills, self-leadership and creativity, learners' needs and interests, cognitive levels, contextual factors, prior experiences, and cultural characteristics (Firoozi, Seifi, Hosseini Mehr, & Faqihi, 2017).

Research indicates that entrepreneurship education has a greater impact when introduced at younger ages (Valliere, 2015). From the perspective of the Global Entrepreneurship Monitor, entrepreneurship education plays a critical role in shaping entrepreneurial attitudes, skills, and culture from the primary school level onward (Axelsson et al., 2015). Recognizing this importance,

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some countries—such as Japan—have incorporated entrepreneurship education into their national curricula (Sabzeh, 2015). In Iran, the movement of schools toward educating entrepreneurial students aligns with this global trend and has been emphasized in numerous upstream policy documents, which obligate governments to pursue this objective (Nasiri, Abbasian, Abdollahi, & Zeynabadi, 2022). These documents include the Fundamental Transformation Document of Education, the Vision Document for 1404 (2025), the National Strategic Plan for Entrepreneurship Development, the Comprehensive Scientific Map of the Country, the National Curriculum, the General Policies of the Resistance Economy, and the Sixth Five-Year Economic, Social, and Cultural Development Plan of Iran (Islamic Consultative Assembly of Iran, 2016). Collectively, these policy frameworks emphasize the promotion of entrepreneurship as a means of addressing national and societal needs across education, industry, and the economy, with the ultimate goal of achieving sustainable development (Rostami et al., 2022).

Over the past three decades, entrepreneurship has emerged as a prominent and influential field within the social and economic sciences (Hughes & Singh, 2022). During this period, significant transformations have also occurred in the structure and performance of Iran's educational system, leading to the introduction of entrepreneurship education into the national education framework. Nevertheless, empirical evidence suggests that considerable challenges remain, including inadequate investment in entrepreneurship education, insufficient attention to multiple dimensions of entrepreneurial development, limited emphasis on experiential and practical learning, and a lack of alignment between curriculum content and labor market needs (Haghighi et al., 2017). Studies further indicate that elementary school curricula in Iran are not adequately designed to support the development of entrepreneurial competencies among students at this level. Moreover, the absence of systematic research, organized knowledge, and a comprehensive, codified program for children's entrepreneurship education represents a major gap within the national education system (Moradi Pardanji et al., 2020).

This situation contrasts sharply with that of many developed countries, where entrepreneurship education has become a core component of educational systems (Morteza Nejad et al., 2017). In these contexts, entrepreneurship education extends beyond theoretical instruction to include the formulation of strategies, policies, and practical programs aimed at fostering entrepreneurial attitudes and behaviors, providing education and counseling, creating supportive environments for

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entrepreneurial activity, removing structural barriers, and facilitating access to global markets—efforts that have yielded notable outcomes (Roshania, Khademi, & Ghouti, 2015). Furthermore, entrepreneurship education at the elementary level not only familiarizes children with fundamental entrepreneurial concepts but also contributes to the early formation of entrepreneurial mindsets and dispositions (Azizi et al., 2019).

The primary objective of entrepreneurship education is to prepare individuals for initiating and managing business ventures. This perspective largely emphasizes theoretical components such as opportunity recognition, business start-up, business development, and self-employment (Lackéus, 2015). More broadly, entrepreneurship education should empower individuals to the extent that they are capable of initiating entrepreneurial activities after graduation, while simultaneously enhancing essential skills such as problem-solving, critical thinking, and communication (Doss & Sapney, 2017). Despite the recognized importance of entrepreneurship education at both global and national levels, the systematic development of entrepreneurship and entrepreneurial competencies from early childhood has not yet received sufficient scholarly attention. Existing research has predominantly focused on secondary and higher education or on industrial contexts, whereas the cultivation of entrepreneurial competencies should be institutionalized beginning at the elementary school level (Moradi Pardanji et al., 2020).

Although recent initiatives—such as the implicit inclusion of entrepreneurial concepts in Grade 6 Work and Technology textbooks—reflect increased attention to entrepreneurship education in Iran, these efforts remain fragmented and insufficiently grounded in a coherent curriculum framework. Therefore, the present study seeks to identify the characteristics of the **content element** of a curriculum designed to foster entrepreneurial individuals at the elementary level. This objective is pursued through in-depth interviews with experts, followed by the validation of a researcher-developed questionnaire based on a proposed conceptual framework. Accordingly, the study addresses two main research questions:

1. What characteristics should the content element of a curriculum aimed at educating entrepreneurial individuals at the elementary level possess?
2. To what extent is the content element of the designed curriculum valid from the perspective of experts?

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Material and Methods

The present study adopted a mixed-methods (qualitative–quantitative) approach. The qualitative phase employed a grounded theory methodology with the aim of identifying the characteristics of the content element in a curriculum designed to foster entrepreneurial individuals at the elementary school level. In this phase, research questions were addressed through semi-structured interviews. Data were collected using interviews conducted with a group of experts in the relevant fields.

Participants were recruited through purposive sampling, followed by snowball sampling (expert network sampling), and data collection continued until theoretical saturation was achieved. Initially, written invitations requesting participation and consent for interviews were sent to 20 experts. Following subsequent follow-ups, 9 additional individuals agreed to participate; however, as data saturation had not yet been reached, further follow-ups resulted in the participation of 5 more experts. In total, 34 experts participated in the qualitative phase of the study.

The demographic characteristics of the participants are presented in Table 1.

Table 1. Demographic Characteristics of the Study Participants

Variable	Category	Frequency
Gender	Female	19
	Male	15
Education Level	Master's degree	19
	Doctorate	15
Professional Role	Entrepreneur	13
	Ministry of Education	16
	Faculty member	5

The participants included 19 females and 15 males; 19 held a master's degree and 15 held a doctoral degree. Their professional roles included entrepreneurs, education professionals, and university faculty members. Participants were selected based on predefined criteria aligned with the objectives of the study, including experience in education, research, and entrepreneurship across various professional levels.

Data were collected through semi-structured interviews. A checklist was developed as the primary research instrument, consisting of seven main questions and three subsidiary questions derived from the core objective of the study. These questions were posed to all participants. During the interviews, additional probing questions were asked as needed to facilitate deeper exploration and to obtain richer data.

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All interviews were audio-recorded with participants' consent and subsequently transcribed verbatim using word processing software.

Data Analysis

The interview data were analyzed using grounded theory coding procedures, including open, axial, and selective coding, in accordance with the guidelines proposed by Strauss and Corbin (1998/2012). During the open coding stage, 71 initial codes were identified. These were subsequently reduced to 16 axial codes, and finally integrated into 4 selective codes. Key statements related to the characteristics of the content element in an entrepreneurship-oriented elementary curriculum were extracted, categorized, and synthesized. The concepts derived from the initial coding process were then transformed into a researcher-developed questionnaire.

Trustworthiness of the Qualitative Phase

The trustworthiness of the qualitative findings was evaluated based on the criteria proposed by Strauss and Corbin (2015). Corbin argues that the quantitative concepts of *validity* and *reliability* are not fully appropriate for qualitative research. Instead, the concept of acceptability (credibility) is preferred. Acceptability refers to the extent to which the findings are trustworthy, believable, and reflective of the experiences of participants, researchers, and readers with respect to the phenomenon under investigation. According to grounded theory principles, a theory can be considered valid only when the researcher has reached theoretical saturation, which occurs during the final stage of coding (selective coding) and signifies the comprehensive explanation of the emergent grounded theory.

Quantitative Phase: Instrument Validation

In the quantitative phase, instrument validation was conducted using the expert judgment technique. A researcher-developed questionnaire consisting of 89 items was designed based on the qualitative findings and subjected to evaluation by experts. The items related to the content element were categorized into four dimensions:

1. Entrepreneurship education,
2. Strengthening the psychological dimension of entrepreneurship,
3. Strengthening cultural and social entrepreneurial skills, and
4. Strengthening economic entrepreneurial skills.

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Both content validity and face validity of the items were assessed by five curriculum planning experts. To further validate the identified characteristics, two workshops were conducted at different times, during which the proposed content characteristics were presented to the expert group. Subsequently, the validation checklist was distributed to experts to assess the credibility of the designed content characteristics.

All quantitative data were entered into SPSS version 21 for statistical analysis. For this purpose, two separate files were prepared and provided to the purposefully selected experts: (a) an offline document containing a concise summary of the interview-derived items along with the objectives, rationale, and procedures of each interview session, and (b) a content validity evaluation form used to assess the proposed curriculum content characteristics.

Results

Characteristics of the Content Element in an Entrepreneurship-Oriented Elementary Curriculum

To address the first research question—*"What characteristics should the content element of a curriculum aimed at educating entrepreneurial individuals at the elementary level possess?"*—the findings obtained from the coding process were analyzed and synthesized.

Based on the grounded theory analysis, four core (selective) categories emerged from the data. These categories encompassed 16 axial categories and 71 open codes, reflecting the comprehensive structure of the content element in a curriculum designed to foster entrepreneurial individuals at the elementary school level. The four core categories included:

1. Entrepreneurship Education**,**
2. Strengthening the Psychological Dimension of Entrepreneurship**,**
3. Strengthening Cultural and Social Entrepreneurial Skills**, and**
4. Strengthening Economic Entrepreneurial Skills**.**

Table 2 presents an overview of the identified categories and their related dimensions.

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Table 2. Overview of the identified categories and their related dimensions

Core category	Axial codes	Open codes	Frequency
Entrepreneurship Education	Understanding Entrepreneurial Concepts	Familiarity with different approaches to entrepreneurship	5
		Introduction to the concepts of entrepreneur and entrepreneurship	10
		Introduction to working culture	10
		Introduction to the concepts of value creation and entrepreneurship	10
		Introduction to the biographies of domestic and foreign entrepreneurs	5
	Understanding the Dimensions of Entrepreneurship	Identifying opportunities	10
		Idea generation and planning	7
		Research and review of new ideas	7
		Goal setting and review of upcoming goals	10
		Planning	6
	Understanding Individual Entrepreneurial Characteristics	Individual's ability to take responsibility in matters	5
		Individual's ability to have critical thinking	5
		Individual's ability to do teamwork	5
		Individual's ability to solve problems	7
		Individual's ability to make decisions in matters	5
		Individual's ability to strive for success	5
		Individual's ability to reason in matters	5
		Individual's ability to be courageous in matters	5
		Individual's ability to have a creative attitude	10
		Individual's ability to use emotional intelligence	5
		Individual's ability to use new technologies	10
		Individual's ability to be selfless and forgiving	3
		Individual's ability to be foresight and foresight	6
		Individual's ability to have self-confidence	4
	Integrating Entrepreneurship Education Across Subjects	Combining entrepreneurship education with art based on courage and risk-taking	5
		Combining entrepreneurship education with mathematics based on job practice and calculating profit and loss	5
		Combining entrepreneurship education with Persian based on practicing negotiation techniques, communication skills, scenario writing or design writing	5
		Combining entrepreneurship education with work and technology based on implementing concrete ideas	10
		Combining entrepreneurship education with heavenly gifts based on familiarity with the concepts of work and value creation in Islam	۵5
		Combining entrepreneurship education with social studies based on the biography of entrepreneurs and the geographical environment	9
	Recognizing Individual Talents and Interests	Recognizing the individual's desire and ability during action	10
		Recognizing the components of intrapersonal entrepreneurship	5
		The ability to draw a vision of the life path based on talent	5
Strengthening the Psychological Dimension of Entrepreneurship	Development of Metacognitive Skills	The ability to acquire self-planning skills	4
		The ability to acquire self-monitoring skills	5
		The ability to acquire self-evaluation skills	3
		The ability to acquire self-regulation skills	5
	Development of Personal Growth Skills	The ability to acquire personal self-awareness	7
		Acquiring the ability to manage time	8
		Acquiring the ability to set goals and plan individually	10
		Acquiring the ability to draw a path for academic growth	11
		Acquiring the ability to draw Career growth path	19
		Acquire verbal competence	10

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	Development of Communication Skills	Acquiring non-verbal competence	10
		Acquiring written competence	9
	Development of Entrepreneurial Skills	Acquiring the ability to tolerate ambiguity in activities	8
		Acquiring the ability to persevere in activities	6
		Acquiring the ability to tolerate failure in activities	10
		Acquiring the ability to take risks in activities	4
		Acquiring the ability to use imagination in activities	10
		Acquiring the ability to recognize emotions in activities	15
		(Familiar with emotions)	5
Strengthening Cultural and Social Entrepreneurial Skills	Understanding Entrepreneurial Culture	Acquiring interpersonal and social skills	10
		Recognizing society and its related needs	10
	Strengthening Social Entrepreneurship	Citizenship skills	10
		Acquiring the ability to hold a charity market	5
		Acquiring the ability to behave socially (work conscientiously, being responsible, respecting the rights of others, valuing, considering justice and fairness)	5
		Acquiring the ability to make ethical commitments	2
Strengthening Economic Entrepreneurial Skills	Business Skills Development	Identifying career options	15
		Business design	15
	Sales and Marketing Skills	Marketing concepts	5
		Taxation	6
		Distribution and distribution	6
		Resource management	5
	Acquire customer relationship skills	Negotiation techniques	5
		Customer orientation	9
	Business Start-Up Skills	Production of goods and services	7
		Starting a small business	10
	Financial Literacy Skills	Learning about types of money and its use	4
		Acquiring financial intelligence capabilities	6
		Legal literacy	2

Validity of the Content Element of the Designed Curriculum from Experts' Perspectives

To address the second research question— *"To what extent is the content element of the designed curriculum valid from the perspective of experts?"*—the validity of the identified curriculum content was examined using expert evaluations.

For this purpose, inter-rater agreement (consensual validity) was calculated based on the responses of 20 experts to the content validation checklist. The level of agreement among experts regarding both the overall curriculum and the content element was computed, and the results are reported in Table 3.

In order to assess the content validity of the items derived from the qualitative interviews, the Content Validity Index (CVI) and the Content Validity Ratio (CVR) were calculated. These indices were used to evaluate the judgments of the 20 experts regarding the 89 final items included

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in the researcher-developed questionnaire. The results of the CVI and CVR analyses are also presented in Table 3. Overall, the findings indicate that the content element of the designed curriculum demonstrates an acceptable level of validity from the experts' perspectives, supporting its suitability for use in entrepreneurship-oriented curriculum design at the elementary school level.

Table 3. Results of the CVI and CVR analyses

	Content element	CVI	CVR
To what extent do you consider this content suitable for the curriculum of educating entrepreneurs in elementary school?	Understanding entrepreneurial concepts	0.95	0.90
	Familiarity with different approaches to entrepreneurship	0.90	0.80
	Familiarity with the concepts of the entrepreneur and entrepreneurship	0.90	0.80
	Familiarity with work culture	1	1
	Familiarity with the concepts of value creation and entrepreneurship	1	1
	Familiarity with the biographies of national and international entrepreneurs	1	1
	Understanding the dimensions of entrepreneurship	0.90	0.80
	Opportunity recognition	0.90	0.80
	Idea generation and planning	0.95	0.90
	Researching and examining innovative ideas	0.95	0.90
	Goal setting and reviewing prospective goals	0.80	0.60
	Planning	0.85	0.70
	Understanding individual entrepreneurial characteristics	0.95	0.90
	Individual ability to assume responsibility	1	1
	Individual ability to engage in critical thinking	1	1
	Individual ability to work collaboratively	1	1
	Individual problem-solving ability	1	1
	Individual decision-making ability	1	1
	Individual achievement motivation	1	1
	Individual reasoning ability	1	1
	Individual assertiveness	1	1
	Individual ability to adopt a creative mindset	1	1
	Individual ability to apply emotional intelligence	1	1
	Individual ability to utilize modern technologies	1	1
	Individual capacity for altruism and forgiveness	۰/۹۵	۰/۹۰
	Individual capacity for foresight and future orientation	1	1
	Individual ability to demonstrate self-confidence	1	1
	Integration of entrepreneurship education based on entrepreneurial components	1	1
	Integration of entrepreneurship education with art based on assertiveness and risk-taking	1	1
	Integration of entrepreneurship education with mathematics based on job simulation and profit–loss calculation	1	1
	Integration of entrepreneurship education with language studies based on practicing negotiation techniques, communication skills, scenario writing, or proposal writing	1	1
	Integration of entrepreneurship education with work and technology based on the practical implementation of tangible ideas	1	1
	Integration of entrepreneurship education with religious education based on familiarity with the concepts of work and value creation in Islamic teachings	0.85	0.70
	Integration of entrepreneurship education with social studies based on entrepreneurs' biographies and geographical contexts	0.95	0.90
	Identification of individual talent	1	1
	Identification of individual interests and abilities through practical engagement	1	1
	Identification of intrapersonal entrepreneurial components	1	1

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	Ability to articulate a life-path vision based on individual talents	0.95	0.90
	Acquisition of metacognitive skills	1	1
	Ability to acquire self-planning skills	1	1
	Ability to acquire self-monitoring skills	1	1
	Ability to acquire self-evaluation skills	1	1
	Ability to acquire self-regulation skills	1	1
	Acquisition of personal development skills	1	1
	Individual self-awareness ability	1	1
	Acquisition of time-management competence	1	1
	Acquisition of individual goal-setting and planning competence	0.95	0.90
	Acquisition of competence in mapping academic growth pathways	0.90	0.80
	Acquisition of competence in mapping career development pathways	0.90	0.80
	Acquisition of communication skills	1	1
	Acquisition of verbal communication competence	1	1
	Acquisition of non-verbal communication competence	1	1
	Acquisition of written communication competence	0.85	0.70
	Acquisition of entrepreneurial skills	1	1
	Acquisition of competence in tolerating ambiguity during activities	0.95	0.90
	Acquisition of competence in perseverance during activities	1	1
	Acquisition of competence in tolerating failure during activities	1	1
	Acquisition of competence in risk-taking during activities	1	1
	Acquisition of competence in using imagination during activities	0.90	0.80
	Acquisition of competence in recognizing emotions during activities (emotional awareness)	1	1
	Acquisition of interpersonal and social skills	1	1
	Understanding entrepreneurial culture	1	1
	Understanding society and its related needs	0.95	0.90
	Citizenship skills	0.90	0.80
	Strengthening social entrepreneurship	1	1
	Ability to organize charity markets	0.90	0.80
	Ability to demonstrate social behaviors (work ethic, responsibility, respect for others' rights, value recognition, justice, and fairness)	1	1
	Ability to uphold ethical commitments	1	1
	Familiarity with the needs of the surrounding social environment	1	1
	Acquisition of business skills	1	1
	Identification of career options	1	1
	Business design	0.95	0.90
	Acquisition of sales skills	1	1
	Marketing concepts	1	1
	Taxation	0.90	0.80
	Distribution and logistics	0.95	0.90
	Resource management	0.95	0.90
	Acquisition of customer relationship skills	0.95	0.90
	Negotiation techniques	0.95	0.90
	Customer orientation	0.95	0.90
	Acquisition of business start-up skills	0.90	0.80
	Production of goods and services	0.90	0.80
	Launching a small business	0.90	0.80
	Acquisition of financial literacy skills	0.95	0.90
	Familiarity with types of money and their use	0.95	0.90
	Acquisition of financial intelligence	0.95	0.90
	Legal literacy	0.95	0.90
	To what extent does the content cover the needs of students to become entrepreneurs?	0.90	0.80
	To what extent is the content mentioned above feasible?	0.85	0.70

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Based on the analysis of the research findings, the Content Validity Index (CVI) for each item was calculated by dividing the number of experts who rated the item as 3 or 4 by the total number of experts. In this study, to ensure the quality of the instrument and the appropriateness of the assigned tasks for the presented content according to expert judgment, a CVI of 0.80 or higher was considered acceptable. All items examined achieved a CVI score above 0.80, indicating that they are valid.

The cutoff point for the Content Validity Ratio (CVR) depends on the sample size of experts. For a panel of 20 experts, according to Lawshe's table, the cutoff point is 0.42, meaning that any item with a CVR above 0.42 is considered valid, whereas a CVR below 0.42 indicates that the item is not valid. Based on the CVR values, all items were found to have sufficient validity.

Characteristics of the content element in a curriculum designed to foster entrepreneurial individuals

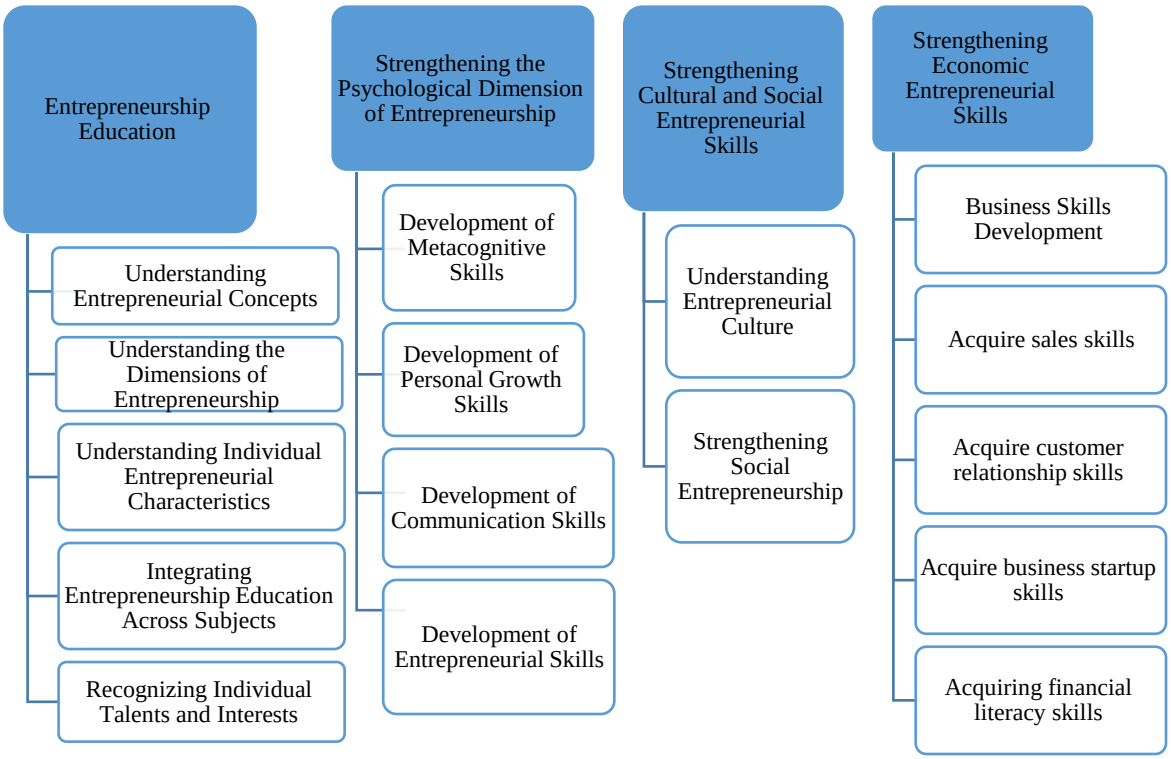


Figure 1. Characteristics of the content element in the curriculum based on educating the entrepreneur in elementary school

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Based on the figure above, the characteristics of the content element in an entrepreneurship-oriented elementary curriculum comprise four fundamental dimensions: entrepreneurship education, strengthening the psychological dimension of entrepreneurship, enhancing cultural and social entrepreneurial skills, and strengthening economic entrepreneurial skills. Each of these dimensions includes specific components and indicators.

Although the researchers identified these characteristics using a combination of literature review, previous studies, interviews with experts in relevant fields and education practitioners, and document analysis of high-level policy documents, efforts were made to ensure that the presented content is validated from the perspective of program implementers.

Furthermore, the results of this study regarding the content and emphasized concepts in entrepreneurship education indicate that the primary focus is on accurate knowledge acquisition, skill development, social entrepreneurship culture, financial and economic concepts, among others. Teaching these concepts is expected to positively influence children's future entrepreneurial activities, increase business start-up rates, and improve economic indicators. Additionally, developing competencies such as creativity, entrepreneurial spirit, and independence contributes to shaping individuals' attitudes toward entrepreneurship.

Discussion

In this study, an attempt was made to explain the characteristics of the content element in an entrepreneurship-oriented curriculum for elementary education using the grounded theory method. According to the research findings, the desirable content consisted of four selective codes, sixteen axial codes, and seventy-one sub-codes. Content encompasses all concepts, materials, and information related to a lesson, and expert groups play a key role in its determination. The characteristics of curriculum content in the present study fall into four main categories:

a) Entrepreneurship Education

Understanding entrepreneurship concepts, including familiarity with various approaches to entrepreneurship, understanding the concepts of entrepreneur and entrepreneurship, awareness of work culture, knowledge of value creation and entrepreneurship, and familiarity with the biographies of domestic and international entrepreneurs.

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Understanding dimensions of entrepreneurship, including opportunity recognition, idea generation and planning, research and evaluation of innovative ideas, goal setting and assessing objectives, and planning.

Understanding individual entrepreneurial characteristics, including responsibility, critical thinking, teamwork, problem-solving skills, decision-making ability, achievement orientation, reasoning, courage, creativity, emotional intelligence, use of modern technologies, altruism, foresight and future orientation, and self-confidence.

Integrating entrepreneurship education based on entrepreneurial components, including integration with arts (fostering courage and risk-taking), mathematics (practicing job-related calculations and profit-loss analysis), Persian language (practicing negotiation, communication skills, scenario planning, or project writing), work and technology (realization of practical ideas), religious studies (familiarity with work and value creation in Islam), and social studies (learning from biographies of entrepreneurs and geographic context).

Recognizing individual talents, including understanding interests and capabilities in practice, awareness of intrapersonal entrepreneurship components, and the ability to map life paths based on personal talents.

b) Strengthening the Psychological Dimension of Entrepreneurship:

Acquiring metacognitive skills, including self-planning, self-monitoring, self-evaluation, and self-regulation.

Developing personal growth skills, including self-awareness, time management, goal-setting and personal planning, academic growth mapping, and career path planning.

Acquiring communication skills, including verbal, nonverbal, and written communication abilities.

Acquiring entrepreneurial skills, including tolerance for ambiguity, perseverance, resilience to failure, risk-taking, creative imagination, emotional awareness, and interpersonal/social skills.

c) Strengthening Cultural and Social Entrepreneurial Skills:

Understanding entrepreneurial culture, including knowledge of society and its needs and citizenship skills.

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Enhancing social entrepreneurship, including organizing charity markets, demonstrating social behaviors (work ethic, responsibility, respect for others' rights, value recognition, justice, and fairness), ethical commitment, and familiarity with the social environment.

d) Strengthening Economic Entrepreneurial Skills:

Acquiring business skills, including identification of career options and business design.

Acquiring sales skills, including marketing concepts, taxation, distribution, and resource management.

Acquiring customer relationship skills, including negotiation techniques and customer orientation.

Acquiring business start-up skills, including production of goods and services and launching small businesses.

Acquiring financial literacy skills, including familiarity with types of money and their use, financial intelligence, and legal literacy.

At the elementary level, the aim of entrepreneurship education is to teach and engage children in entrepreneurial topics. Since personality formation occurs during childhood, curriculum content can play an effective role in this process. Therefore, developing entrepreneurship-oriented, activity-based, and student-centered content not only increases awareness, creativity, inquiry, and development of entrepreneurial skills and traits but also motivates children to engage in further learning and entrepreneurial activities.

These findings are consistent with the studies of Artacoanton (2022), Jadi Gergari et al. (2021), Mahdnoor et al. (2021), Samad et al. (2021), Hashemi et al. (2021), Shahin et al. (2021), Akas, Tarhan, & Aivaz (2020), Setari et al. (2018), Fayol (2018), Shapiro (2017), Parakapas & Zibnina (2017), Cokertz & Berger (2017), Mirzaian Klovari & Sharifi (2016), Rosigo Blasco et al. (2016), Jianping & Chao (2016), Winsor & Hanlon (2016), Abdolkarim (2016), Casson et al. (2015), Philogens (2015), Drakopoulo & Dad & Hines (2012), Pitoy & Edward (2012), Zali (2012), Rai, Martin, Antcliffe & Hanon (2012), Mojab, Zafarian & Aziz (2011), Ernst & Young (2011), Masalouiba (2010), Glam & Holden (2008), Matley (2008), Loszeski (2008), Solomon (2007), Nasiri et al. (2022), Bahmani, Arasti & Hosseini (2019), Morteza Nejad et al. (2017), Azizi & Mokhtari (2017), and Roshan et al. (2015).

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According to the research findings, content refers to the alignment of curriculum content with professional competency standards, appropriate content selection, updated electronic content production, relevance of content to student interests, and student satisfaction with entrepreneurship curriculum content. Therefore, entrepreneurial education requires not only knowledge but also new ways of thinking, novel skills, and new behavioral models. The findings on entrepreneurship curriculum content and organization are in line with Casson et al. (2015), Drakopoulo & Dad & Hines (2012), Glam & Holden (2008), Matley (2008), and Roshan et al. (2015).

According to interviewees, entrepreneurship education content should enhance students' understanding of their surrounding issues, improve analytical skills, develop risk assessment and opportunity recognition, introduce investment opportunities, market needs, clients, employers, and various economic and service sectors, and ignite the spark for generating ideas and transforming them into value in future entrepreneurs. Furthermore, findings from Cokertz & Berger (2017) indicate that entrepreneurship content should be designed and organized based on psychological principles. Similarly, Setari et al. (2018) and Mirzaian Klovari & Sharifi (2016) highlighted the importance of centers supporting student entrepreneurship, preparing students for business entry, and facilitating early career path selection.

On the other hand, the results of this study are also consistent with the findings of Azizi and Mokhtari (1396), who aimed to identify the content of an elementary entrepreneurship curriculum using an integrative approach. Loszeski (2008) divides entrepreneurship content and instructional stages into two steps: first, entrepreneurial characteristics and project skills, including project management, innovation, marketing, and communication; second, business and entrepreneurial skills, including leadership, networking, economic planning, and strategic planning. Similarly, Masalouiba (2010), based on a content analysis of 20 entrepreneurship-related articles, identified the most important topics in entrepreneurship education curricula as resource and financial management, marketing and sales skills, idea generation and opportunity recognition, business planning, enterprise growth management, organization and networking, new venture creation, small business management, risk-taking, fostering entrepreneurial spirit, business initiation, community service, and stimulating entrepreneurial skills.

Based on the findings of this study, the most important content in an entrepreneurship curriculum includes: learning about oneself, entrepreneurial skills and personality traits, learning about

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organization and management, learning about business, understanding entrepreneurship theory, learning about communication management, and learning about business management. These findings align with the results of Mojab, Zafarian, and Aziz (2011), Philogens (2015), Jianping and Chao (2016), Morteza Nejad et al. (2017), Abdolkarim (2016), Pitoy and Edward (2012), Ernst and Young (2011), and Solomon (2007).

In this research, the goal is not merely to define content but to identify a set of desirable characteristics aimed at fostering an entrepreneurial approach in elementary school lessons. The content element's features in an entrepreneurship-oriented curriculum are effective when learners, after acquiring new knowledge and information through curricular content, can apply the acquired knowledge in practical processes and achieve valuable outcomes. Therefore, the best achievement of an entrepreneurship-based educational system is to develop textbooks and curriculum content aligned with students' needs and provide instruction that enhances their performance abilities.

If entrepreneurial concepts and components are integrated across various subjects and taught with an entrepreneurial approach, the content should:

- be diverse,
- emphasize practical and skill-based aspects more than theoretical knowledge,
- actively engage students in work and action.

Regarding strengthening the psychological dimension of entrepreneurship, it can significantly enhance entrepreneurial performance. Entrepreneurs who develop their psychological skills can positively influence others and improve their own work performance. In terms of strengthening cultural, social, and economic entrepreneurial skills, the curriculum includes creative exercises, tasks, and activities embedded in textbooks that demonstrate applicability to life and various professions. Including open-ended problems and tasks that encourage critical thinking and decisive problem-solving strategies is essential for developing problem-solving skills, as these are prominent characteristics of entrepreneurs and should be nurtured alongside instruction.

By incorporating practical activities, exposure to professions, group activities, and applied concepts, these goals can be achieved. Including practical concepts tailored to learners' needs, which are applicable to daily life, allows students to make concrete connections between lessons and their environment. For example:

- learning business management skills,

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- understanding income, allowance, expenses, and savings,
- creating content,
- role-playing hypothetical jobs or mental simulations of work scenarios,
- applying learned concepts in these scenarios.

Organizing school marketplaces where students experience real entrepreneurial situations can also help them better understand concepts such as addition, subtraction, multiplication, percentages, and basic business concepts like costs, revenues, and profits and losses. Ultimately, the curriculum content must be up-to-date and aligned with societal and student needs.

Based on these results, the following recommendations are proposed:

1. When developing curriculum content, attention should be given to entrepreneurial ethics and building the necessary competencies in entrepreneurial knowledge and attitudes, as well as considering the skills required for learners across different classes and age groups.
2. Curriculum designers should conduct thorough needs assessments, considering labor market demands, characteristics of the target audience, and social and economic environment, while also involving implementers of entrepreneurship education programs.
3. Identifying teaching methods compatible with entrepreneurship content at the elementary level requires input from entrepreneurship education experts and curriculum planners. Entrepreneurship concepts should be integrated across subjects such as Persian, Science, and others.
4. Additionally, identifying evaluation indicators for elementary entrepreneurship programs, aligned with their content and assessed from the perspective of experienced experts (e.g., institutions active in children's entrepreneurship education), is recommended as a topic for future research.

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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 ethics committee of Islamic Azad University.

Author contributions

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

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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.

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