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CURRICULUM & TEACHING STUDIES | RESEARCH ARTICLE

Analysis of entrepreneurial competency training in the curriculum of bachelor of physical education in universities in Iran

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Abstract: The aim of the present study was to analyze entrepreneurial competency training in the curriculum of the bachelor of physical education (BPEd) in universities in Iran. The statistical society consisted of all bachelor's degree programs in the field of physical education in Iran from 2017–2018 including humanities, biology, and sports sciences programs with a total number of 363 courses sampled by a census. To select them, the purposive sampling method in the entrepreneurs section and census sampling method in the educational technology course syllabus section were used. The research tool in this study was a semi-structured interview and a content analysis checklist. Initially, interviews were carried out with 12 entrepreneurs to extract entrepreneurial competencies. Then, based on their competencies, a content analysis checklist including 46 entrepreneurial competencies was designed in a subset of six categories. The validity of the content analysis checklist was evaluated and approved by entrepreneurship and higher education experts. The reliability of the checklist was also calculated by using William Scott's method as equal to 88%. The findings showed that the degree of existence of entrepreneurial competencies among curriculum headings in bachelor's degree programs of physical education in Iranian universities is not in a desirable condition. In addition, it was found that in the curriculum headings in bachelor's degree programs of physical education, managerial entrepreneurial competencies are highly concerned, whereas

ABOUT THE AUTHORS

Our research team works in Iran and the topics on the entrepreneurship curriculum in non-business disciplines in Higher Education appear to be as our subjects of interest. Aligned with this research, we are conducting further studies with the goals of entrepreneurship training, methods of teaching entrepreneurship training as well as evaluation methods of entrepreneurship education in non-business disciplines.

PUBLIC INTEREST STATEMENT

Physical education graduates can gain many achievements as an entrepreneur. In the meantime, a large part of acquiring entrepreneurial competencies by individuals may occur through the curriculum of physical education field. The findings indicated that the entrepreneurs can do entrepreneurship in the field of physical education by acquiring 42 competencies. However, these entrepreneurial competencies are not unfortunately included in the physical education curriculum of Iran Universities. Therefore, the curriculum needs to be rich in terms of obtaining entrepreneurial competencies so that the individuals in the field of physical education can achieve many successes as an entrepreneur in the area of commerce such as business start-ups and economic activities business as well as in the non-commercial area like increasing self-confidence, creativity, and social skills in the life.

entrepreneurial opportunity creations competencies, entrepreneurial attitudes, and entrepreneurial knowledge are least taken into consideration.

Subjects: Curriculum Studies; Education Policy & Politics; Higher Education

Keywords: curriculum; entrepreneurship education; physical education; bachelor's degree; Iran

1. Introduction

Today, entrepreneurship has been developed significantly, and it has become an important issue in many countries (Ghina, Simatupang, & Gustomo, 2014). This is mostly because entrepreneurship is known as an important aspect of modern economy, often as a facilitator of innovation, job creation, and national development (Günzel-Jensen & Robinson, 2017). Another reason might be that entrepreneurship can provide numerous opportunities for developing knowledge and skills and motivating the staff. This, in addition to financial development, brings about personal development (Potishuk & Kratzer, 2017).

Meanwhile, higher education institutions, acting as responsible authorities for training expert people in society in the recent decade, have tried to follow their novel responsibility of joining universities with industries and creating entrepreneurial universities. The aim of such universities is to create entrepreneurship culture spirit in students while suggesting new entrepreneurial and investment opportunities (US Department of Commerce, 2013). Studies show that entrepreneurship can be developed through education (Gatewood, Shaver, Powers, & Gartner, 2002; Harris & Gibson, 2008; Henry, Hill, & Leitch, 2005; Kuratko, 2005; Mitra & Matlay, 2004). One way of entrepreneurship education is to put it in the existing curriculums (Cotoi, Bodoasca, Catana, & Cotoi, 2011).

Based on this, in developed countries, huge steps have been taken to support entrepreneurial activities during university period. Entrepreneurship and self-employment have been under great attention in different majors (Bridge & O'Neill, 2012). This is because entrepreneurship education as a key competency is believed to bring about more self-confidence and creative thinking in students. Lewis and Massey (2003) define entrepreneurship education as people's and more specifically, the youth's, growth in a series of skills and attitudes that allow them to both create and search for business. In another definition, entrepreneurship education is a systematic, conscious and purposeful process through which non-entrepreneur people who have the potential for entrepreneurship are trained in a creative way (Terpstra & Rozell, 1993). This concept concentrates on features, abilities, and skills that people should have in order to establish, develop, and manage business (Gibb, 2002).

In the European Consortium Report (2008), it is mentioned that entrepreneurship education does not solely focus on business education for people, and is based on creative thinking and enhancement of a high sense of self confidence and empowerment. In the British Quality Assurance Agency's report (2012), it is mentioned that entrepreneurship education concentrates on growth and use of thinking and investment skills in special fields for establishing a new investment as well as developing and growing the existing business or designing entrepreneurship organization. The aim of this process is to raise graduates who are able to identify growing opportunities and investments through setting up a new business or developing and growing parts of the existing investment. The process is focused on the reinforcement of students to apply skills and features for a vast spectrum of different fields including new and old businesses, charitable organizations, nongovernmental organizations, public sector, and social institutions. Jones and English (2004) believe that entrepreneurship education increases people's ability to create ideas and do research, increases the commercial application of these ideas, and finally creates skills for preservation and development of new companies in people. Overall, it can be said that entrepreneurship education is a policy that provides a series of activities to nurture and gain skills, knowledge, and attitudes in people in order to establish, settle, and develop a business, increase creativity, and achieve innovation and self-confidence in issues and challenges faced in life. Therefore, entrepreneurship education is far more extensive than

establishing a business or developing job opportunities for students (Bridge, 2017) and it can be used for both students majoring in business and those in non-business disciplines. However, studies show that there is little literature on the experience of students and other issues for supporting students in majors other than business in entrepreneurship competencies training (Jones & Jones, 2014). The physical education major as a non-business major is one of these fields; entrepreneurship is important in physical education (González-Serrano, Crespo Hervás, Pérez-Campos, & Calabuig-Moreno, 2017; Senne, 2016; Smith & Westerbeek, 2007; Ratten, 2010; 2011; 2014), because it motivates innovative activities that facilitate social changes (Osibanjo, 2006). By gaining entrepreneurship competencies, in addition to increasing innovation and self-confidence in the face of life challenges, graduates of the bachelor of physical education (BPEd) can be successful in related businesses such as sports advertisement, educational management and planning, education and research in sports, public sports, professional sports, sports equipment manufacturing, sports services, and cultural affairs.

In a study entitled the role of headings and lesson content of bachelor of physical education in entrepreneurship of graduates, Farahani, Goudarzi, Azizian Kohan, and Ahmadi (2009) found the necessity of entrepreneurship education to physical education students, creating medium and interactive space between learning environments and implementation, reviewing, and conforming headings and content of courses with society needs and creating regulations that can support innovations and creativity in the field of sports. Moreover, in a study entitled *the study of students' and graduates' views of physical education major about job future*, Boroumand, Fazli darzi, and Azimideghrsetani (2013) found that more than 60% of undergraduates and graduates of physical education and sports sciences programs in Iran are more eager to continue their education than to enter into the market. In addition, about 41% of undergraduates and graduates did not have an obvious awareness and hopefulness about their future jobs. Moreover, 41.8% of undergraduates and graduates believed that they would enter into business in less than one year after graduation. Several other studies have also suggested that the graduates of the Physical Education field of Iranian Universities are concerned about the occupational future and the job market of the field (Amini, Jamshidi, & Heydarinejad, 2013; Boroumand, Hematinejad, Ramazaninejad, Razavi, & Esmaili, 2011; Nazari, Farahani, Mohammad Reza Asad, & Kodadadi, 2014).

Holmstrom et al. in their study found that inclusion of educational plan periods with sports psychology and entrepreneurship education enhances entrepreneurial attitude of students. In a study entitled *entrepreneurial competencies of students in non-business universities in South Africa*, Seabela and Fatoki (2014) found that non-business students have inadequate skills in entrepreneurial competencies and financial management. In another investigation, Wilson, Kickul, and Marlino (2007) showed that entrepreneurship education plays an important role in increasing the degree of self-efficacy and purpose of initiation of financial activity. The reason was that these factors have a direct relationship with gaining competencies necessary for to perform at their best. In his findings, Nová (2015) reported the role of active teaching methods in educating entrepreneurship in the sports fields. Malekipour, Hakimzadeh, Dehghani, and Zali (2016) pointed to the unfavorable condition of the curricula of Iranian universities in their research. They believe that methods such as combined training, case study, group discussion, participatory practices, and extracurricular activities in the form of games should be used for training entrepreneurship. Ademiluyi (2007) believes that entrepreneurship is actual creativity to combine resources and opportunities in new ways, which includes personal and financial features and other resources in environment for achieving financial success. In an investigation, it was found that the cultural context of American students is a better condition than that of Korean students in terms of entrepreneurial purpose, knowledge, and ability to establish an investment, recognizing the importance of entrepreneurship education, and intending to set up an investment abroad with a focus on teamwork.

In Iran, before the beginning of the Third Plan of Economic, Social, and Cultural Development, no attention had been paid to entrepreneurship; however, regarding the importance of entrepreneurship education in bringing development to the country in all aspects, in Article 20, paragraph (a) of

the Fifth Development Plan, there has been an obvious focus on creation and enhancement of entrepreneurship spirit and entrepreneurial efficacy of undergraduates and graduates through changing educational plans and curricula. In addition, The future outlook of higher education in the horizon of 1,404 aims at promoting the power and strengthening the spirit of innovation and entrepreneurship, commercializing and applying university research and technology achievements, etc. Obviously, achieving these goals requires entrepreneurship education curriculum in various academic disciplines. In the universities of Iran, three areas of study are presented is the field of physical education, including the areas of interest of biological science, sports science, and humanities at the undergraduate degree. Their curricula in Iran are designed and developed by the Ministry of Science and Technology Research for all the universities in a centralized process. All universities offering areas of interest in the field of physical education are required to use these centralized curricula. Based on this, since a huge part of entrepreneurship education in physical education program during the bachelor's period is created through official curriculum including the content and headings of textbooks, the following question is raised: to what extent do the headings and content of curricula create entrepreneurial competencies in physical education undergraduates in universities in Iran? Conducting this research is important for several reasons. First, by knowing the competencies that are absent in the curriculum of headings of the regarded majors, we can integrate them into the curriculum of physical education program. Second, awareness of the level of existence of entrepreneurial competencies in physical education curriculum leads policy-makers and curriculum designers in physical education programs toward taking the required steps to review the curriculum. Based on this, the aim of the present research was to analyze entrepreneurial competencies education in the curriculum of physical education during undergraduate period in universities of Iran.

2. Methodology

The present study was performed through content analysis. With regard to the research goals, this study is an applied research because its results can be used by responsible stakeholders and decision-making organizations. *Study group:* The study population consisted of two groups. The first group includes those who have succeeded to launch a business as an entrepreneur by completing their undergraduate degree in physical education and its sub-disciplines and three and a half years have passed since the start of their business and they have entered the stage for business consolidation. These people may have also won national awards and titles on the entrepreneurship.

The second group involves all headings of the sub-disciplines in the field of undergraduate physical education in the universities of Iran in the academic year of 2017–2018, including the sub-disciplines of the Humanities, Biosciences, and Sports Sciences consisted of 363 courses. The curricula of Iranian universities are designed and developed by the Ministry of Science and Technology Research for all the universities in a centralized process. All universities offering areas of interest in the field of physical education are required to use these centralized curricula. *Sampling method:* In this research, a purposive sampling method was used to select the entrepreneurs, while a census sampling was used to select the headings. *Data collection tools:* The research tools in this study were a semi-structured interview and a content analysis checklist. Data collection process was conducted in two stages.

The first stage of data collection process: At first, 12 entrepreneurs were interviewed using the semi-structured interview until the theoretical saturation was reached. The duration of the interview lasted between 25 and 40 min for each of the participants. *Analysis method:* the data analysis process for the semi-structured interviews was inductive, and was analyzed in three stages of open, axial, and selective coding. In order to analyze the data in the first stage, after recording each interview and note-taking, it was transcribed verbatim to discover and identify the main concepts and categories. In the second stage, the interview data was analyzed using the open coding method, which included reading the line by line data, extracting the main concepts, and forming the basic categories and classes. In the next stage, where the coding was axial, the researcher put the same codes together and under a more abstract concept. *Validity:* To determine the validity of the data, strategies such as reviewing interviewees and reviewing peer researchers were used. *Reliability:* For

reliability, a foreign observer with qualitative research experience also contributed to the research process in the present study, which ultimately increased the reliability of the research.

The second stage of data collection process: Based on the competencies extracted in the previous stage, the content analysis checklist including 46 entrepreneurial competencies was designed in a subset of six categories (Table 1). *Analysis method:* Accordingly, the presence of entrepreneurial competencies in the syllabus of undergraduate humanities, biology, and sports sciences programs from physical education curriculum was analyzed. The analysis unit in this context is each of the headings of the BPEd in Iranian universities. *Validity:* Content validity was used to determine the validity of the tool, and the assessment list of contents was given to five entrepreneurship and higher education experts. After making a few modifications, the tool was approved and used for the research. *Reliability:* To determine the reliability of content analysis, a researcher well familiar with qualitative research methods, and especially content analysis, was asked to encode the constructs extracted in relation to entrepreneurship education in 20% of the bachelor's degree program of physical education field. The Scott (1955) formula was used to determine the agreement between them. The method provided by Scott is more reliable than other methods of calculating the reliability coefficient since the number of subcategories considered by this approach in the calculation of the coefficient is more accurate, according to which, the coefficient would be calculated.

$$\eta = \frac{P_o - P_e}{1 - P_e}$$
$$P_o = 0.91$$
$$P_e = 0.25$$
$$\eta = \frac{0.91 - 0.25}{1 - 0.25} = 0.88$$

As seen in the formula, the expected reliability was calculated to be 0.88. As the reliability coefficient is higher than 70%, then, this part of the research has a good coefficient of reliability. In the end, the content analysis checklist was designed in the form of 6 major components and 46 subcomponents including entrepreneurial knowledge (8 subcomponents), entrepreneurial attitude competencies (13 subcomponents), entrepreneurial awareness competencies (7 subcomponents), entrepreneurial opportunity creating competencies (4 subcomponent), entrepreneurial management competencies (9 subcomponents), and entrepreneurial social competencies (6 subcomponents).

3. Results

Content analysis of the curriculum headings for bachelor's degree in physical education in universities of Iran:

Table 2 shows the condition of entrepreneurial knowledge competencies in the curriculum headings for bachelor's degree in physical education fields in Iranian universities. Based on the table, in the curriculum headings of the humanities discipline in the physical education program, competencies of business ethics and business rights had one frequency; however, business model design, business plan, business internationalization, business launch, entrepreneurial marketing, and product design had zero frequency. Therefore, it can be concluded that the possibility of an education has been defined in business ethics and business rights in the curriculum headings of the humanities discipline in the physical education program; however, the possibility of the other competencies has not been yet considered.

In the curriculum headings of biology and sports sciences disciplines in BPEd, all the entrepreneurial competencies had zero frequency. Thus, it can be concluded that the possibility of education in business ethics, business model design, business plan, business internationalization, business

Table 1. The checklist of the components and entrepreneurial competencies

Entrepreneurial competency	Components of entrepreneurial competency
Entrepreneurial knowledge	Business ethics-Designing a business model-Business-Business internationalization-Business launch-Business rights-Entrepreneurial marketing-Product design
Entrepreneurial attitude	Self-awareness-Perseverance-Tolerance of ambiguity-Internal control-Independence-Entrepreneurial self-efficacy-Creative thinking-Critical thinking-Optimism-Adventure spirit-Risk-taking spirit-Dreaming
Entrepreneurial awareness	Skills in searching for new information-Connecting new information with previous knowledge-Assessing new information-Skills in transferring the best media for message transmission-Forecasting, computer skills-Skills in using research in business
Entrepreneurial opportunity creation	Optimizing opportunities-Decision-making skills-Problem-solving skills-Innovation
Entrepreneurial management	Business leadership skills-Project management skills in business-Knowledge management skills in business-Strategic planning skills-Staff management skills-Skill in the use of reverse engineering-Financial management skills-Business crisis management-Ability to set clear goals
Social competencies	Social networking-Skills in maintaining relationships with employees-Negotiation skills-Listening skills-Empathy skills-Intercultural skills

launch, business rights, entrepreneurial marketing, and product design has not been embedded in the curriculum headings of biology and sports sciences disciplines in the BPEd Program.

Table 3 shows the condition of entrepreneurial attitude competencies in the curriculum headings of BPEd disciplines in Universities Of Iran. Based on this table, in the curriculum headings of humanities and biology disciplines in the BPEd Program, all the competencies of entrepreneurial attitude had zero frequency. Therefore, it can be concluded that the possibility of education of self-awareness, perseverance, tolerance of ambiguity, internal control, independence, entrepreneurial self-efficacy, creative thinking, optimism, adventure spirit, risk-taking spirit, and dreaming is not predicted in the curriculum of humanities and biology disciplines from the bachelor’s degree in physical education.

In the curriculum headings of sports sciences discipline in the BPEd program, the risk-taking competency obtained one frequency. However, the competencies of self-awareness, perseverance, tolerance of ambiguity, internal control, independence, entrepreneurial self-efficacy, creative thinking, positive thinking, adventure spirit, and dreaming had zero frequency. Therefore, it can be concluded that the possibility of education in the risk-taking competency has been defined in the curriculum headings of sports sciences discipline in the BPEd Program; however, the possibility of education in the other competencies has not been yet defined.

Table 4 shows the condition of entrepreneurial awareness competencies in the curriculum headings of BPEd Disciplines in universities in Iran. Based on the table, in the curriculum headings of the humanities discipline in the BPEd program, the competency of computer skills had one frequency and skills in using research in business had four frequencies. However, the competencies of skills in searching for new information, relating new information with prior knowledge, assessment of new information, skills in selecting the best media to communicate the message, computer skills, and forecasting had zero frequency. Therefore, it can be concluded that the possibility of education in computer skills and skills in using research in business had been defined in the curriculum headings of humanities and sports sciences disciplines in bachelor’s degree in physical education; however, there is no possibility of education in the other competencies.

In the curriculum headings of biology discipline in the BPEd Program, the computer skills competency obtained one frequency. However, the competencies of skills in searching for new information, relating new information with prior knowledge, assessment of new information, skills in selecting the best media to communicate the message, computer skills, using research in business, and forecasting had zero frequency. Therefore, it can be concluded that the possibility of education in the computer skills competency has been defined in the curriculum headings of the sports sciences

Table 2. Content analysis of entrepreneurial knowledge competency in the curriculum headings of BPEd Fields

Entrepreneurial knowledge competency courses	Humanities	Biology	Sports sciences
Business ethics	1	0	0
Business model design	0	0	0
Business plan	0	0	0
Business internationalization	0	0	0
Business launch	0	0	0
Business rights	1	0	0
Entrepreneurial marketing	0	0	0
Product design	0	0	0
Frequency	2	0	0

Table 3. Content analysis of entrepreneurial attitude competency in the curriculum headings of BPEd programs

Entrepreneurial attitude competency courses	Humanities	Biology	Sports sciences
Self-awareness	0	0	0
Perseverance	0	0	0
Tolerance of ambiguity	0	0	0
Internal control	0	0	0
Independence	0	0	0
Entrepreneurial self-efficacy	0	0	0
Creative thinking	0	0	0
Critical thinking	0	0	0
Optimism	0	0	0
Adventure spirit	0	0	0
Risk-taking spirit	0	0	2
Dreaming	0	0	0
Frequency	0	0	2

discipline in the BPEd program; however, the possibility of education in the other competencies has been neglected.

Table 5 shows the condition of entrepreneurial opportunity creation competencies in the curriculum headings of BPEd disciplines in universities of Iran. Based on this table, in the curriculum headings of the humanities discipline in the BPEd program, the competencies of decision-making and problem-solving skills had one frequency, while the competencies of using opportunities and innovation had zero frequency. Therefore, it can be concluded that the possibility of education in the decision-making and problem-solving skills competencies has been defined in the curriculum headings of the humanities discipline in bachelor’s degree in physical education; however, the possibility of education in the other competencies not observed.

In the curriculum headings of biology and sports sciences disciplines in the BPEd program, all the competencies obtained zero frequency. Therefore, it can be concluded that the possibility of education in using opportunities, decision-making, problem solving, and innovation competencies has not been defined in the curriculum headings of biology and sports sciences disciplines in the BPEd program.

Table 4. Content analysis of entrepreneurial awareness competency in the curriculum headings of BPEd Disciplines

Entrepreneurial awareness competency courses	Humanities	Biology	Sports sciences
Skills in searching for new information	0	0	0
Relating new information with prior knowledge	0	0	0
Assessment of new information	0	0	0
Skills in selecting the best media to communicate the message	0	0	0
Computer skills	1	0	1
Skills in using research	3	1	4
Forecasting	0	0	1
Frequency	4	1	6

Table 6 shows the condition of entrepreneurial management competencies in the curriculum headings of BPEd disciplines in universities of Iran. Based on the table, in the curriculum headings of the humanities discipline in the BPEd program, each of the competencies of business leadership skills, strategic planning in business, staff management skills, and financial management skills had one frequency. However, the competencies of project management in business, knowledge management in business, skills in using reverse engineering, crisis management in business, and the ability to set clear goals were not considered. Therefore, it can be concluded that the possibility of education in leadership skills in business, strategic planning in business, staff management skills, and financial management skills has been defined in the curriculum headings of the humanities discipline in bachelor’s degree in physical education; however, no possibility of education in the other competencies has been observed.

In the curriculum headings of the biology discipline in the BPEd program, all the competencies obtained zero frequency. Therefore, it can be concluded that the possibility of education in business leadership skills, strategic planning in business, staff management skills and financial management skills, project management in business, knowledge management in business, skills in using reverse engineering, crisis management in business, and ability to set clear goals has not been defined in the curriculum headings of the biology discipline in the BPEd major.

In the curriculum headings of the sports sciences discipline in the BPEd program, the competency of business leadership obtained two frequencies, project management skills one frequency, staff management skills four frequencies and crisis management skills one frequency. However, the competencies of knowledge management in business, strategic planning in business, skills in using reverse engineering, financial management skills, and ability to set clear goals have not been considered. Therefore, it can be concluded that the possibility of education in business leadership skills, project management skills, staff management skills, and crisis management in business has been defined in the curriculum headings of the sports sciences discipline in the BPEd program; however, there is no possibility of education in the other competencies.

Table 7 shows the condition of social competencies in the curriculum headings of BPEd Disciplines in universities of Iran. Based on the table, in the curriculum headings, the humanities and biology disciplines from the BPEd program were under consideration with zero frequency. Therefore, it can be concluded that the possibility of education in the competencies of social networking, skills in maintaining relationship with employees, negotiation skills, listening skills, empathy skills, and intercultural skills has not been defined in the curriculum headings of the humanities and biology fields regarding bachelor’s degree in physical education.

Table 5. Content analysis of entrepreneurial opportunity creation competency in the curriculum headings of BPEd disciplines

Entrepreneurial awareness competency courses	Humanities	Biology	Sports sciences
Using opportunities	0	0	0
Decision-making skills	1	0	0
Problem-solving skills	1	0	0
Innovation	0	0	0
Frequency	2	0	0

Table 6. Content analysis of entrepreneurial management competency in the curriculum headings of BPEd disciplines

Entrepreneurial attitude competency courses	Humanities	Biology	Sports sciences
Business leadership skills	1	0	2
Project management skills in business	0	0	1
Knowledge management skills in business	0	0	0
Strategic planning skills	1	0	0
Staff management skills	1	0	4
Skills in using reverse engineering	0	0	0
Financial management skills	1	0	0
Crisis management in business	0	0	1
Ability to set clear goals	0	0	0
Frequency	4	0	8

In the curriculum headings of the sports sciences discipline from the BPEd Program, competencies of maintaining relationship with employees have obtained one frequency; however, the competencies of social networking, listening skills, empathy skills, and intercultural skills obtained zero frequency. Therefore, it can be concluded that the possibility of education in maintaining a relationship with employees and negotiation skills has been defined in curriculum headings of the sports sciences discipline in the BPEd field, but the other competencies have been ignored.

Table 8 shows the condition of social competencies in the curriculum headings of BPEd disciplines in universities of Iran. Based on the table, in the curriculum headings of various fields in the BPEd discipline, the highest frequencies are related respectively to entrepreneurial management skills with 12, entrepreneurial awareness skills with 11, entrepreneurial social competencies with 3, entrepreneurial opportunity creation, attitude and knowledge each with 2 frequencies.

4. Discussion and conclusion

In the beginning of the third millennium, moving in the direction of becoming an entrepreneurial university is considered as one of the most important responsibilities of universities in order to compete at an international level and develop the current society. In such universities, students acquire a series of entrepreneurial competencies as the only factor that affects the entrepreneurial university regardless of their major. This helps them have more self-confidence, innovation and creativity in the face of life issues and challenges in addition to helping them succeed in business. Thus, it is obvious that gaining these competencies can be made possible using the formal curriculum potential of universities. Based on this, the aim of the present research was to analyze the education of entrepreneurial competencies as an ignored discussion in the curriculum of BPEd in universities of Iran. The findings of this research at the interview phase with entrepreneurs in this field indicated 6 main categories and 46 subcategories including entrepreneurial knowledge (business ethics–business model design–business plan–business internationalization–business start-up–business

Table 7. Content analysis of entrepreneurial social competencies in the curriculum headings of BPEd Disciplines

Entrepreneurial attitude competency courses	Humanities	Biology	Sports sciences
Social networking	0	0	0
Skills in maintaining relationship with employees	0	0	1
Negotiation skills	0	0	2
Listening skills	0	0	0
Empathy skills	0	0	0
Intercultural skills	0	0	0
Frequency	0	0	3

Table 8. Summary of content analysis of entrepreneurial competencies in the curriculum headings of BPEd disciplines in universities of Iran

Entrepreneurial attitude competency courses	Humanities	Biology	Sports sciences
Entrepreneurial knowledge competencies	2	0	0
Entrepreneurial attitude competencies	0	0	2
Entrepreneurial awareness competencies	4	1	6
Entrepreneurial opportunity creation competencies	2	0	0
Entrepreneurial management competencies	4	0	8
Entrepreneurial social competencies	0	0	3
Frequency	19	1	12

rights–entrepreneurial marketing–product design), entrepreneurial attitudes competencies (self-awareness–perseverance–tolerance of ambiguity–internal control–independence–entrepreneurial self-efficacy–creative thinking–critical thinking–optimism–adventure spirit–risk-taking spirit–dreaming), competencies of entrepreneurial awareness (skill in finding new information–connecting new information with previous knowledge–evaluating new information–skills in selecting the best medium for message communication forecasting–computer skills–skills in using research in business), entrepreneurial opportunity creation competencies (using opportunities–decision-making skills–problem-solving skills–innovation), entrepreneurial management competencies (business leadership skills, project management skills in business–knowledge management skills in business–strategic planning skills–staff management skills–skills in using reverse engineering–financial management skills–business crisis management–the ability to set clear goals), and social entrepreneurial competencies (social networking skills in maintaining relationships with employees–negotiation skills–listening skills–empathy skills–intercultural skills). Analyzing the content of the headings showed that on the whole, the degree of existence of entrepreneurial competencies in the curriculum of disciplines in bachelor’s degree of physical education in Iranian universities is not in a desirable condition. The findings of Boroumand et al. (2013), Farahani et al. (2009), and Seabela and Fatoki (2014) are in line with the findings of this research. Therefore, it can be said that regarding the absence of entrepreneurial competencies in curriculum of disciplines in the BPEd program in Iranian universities, students will have inadequate ability for country development plans on a large scale, and for gaining creativity, innovation, and self-confidence in the face of life challenges on a small scale. Such a situation has also led to a further emphasis on the theoretical issues and memoirs moral away from attention to the practical and executive application of entrepreneurship topics and issues, and thus, it will not make the students familiar with the features and skills required by the community as expected. As a result, it creates the spirit of credentialism and leads to the failure in emerging self-employment spirit in physical education graduates. Therefore, the content of the physical education fields’ curriculum needs to cover entrepreneurial competencies training. Obviously, the inclusion of these competencies in the curriculum makes the students not to just wait

for governmental hires. Instead, it encourages them to develop entrepreneurship in their own field, which will lead to the country's progress in addition to personal achievement and success. The unemployment problem is nowadays considered a crisis among university graduates in developing countries. The findings by Nazari et al. (2014), Amini et al. (2013), and Boroumand et al. (2011) suggest the dilemma of the unemployment crisis in the field of physical education. One reason for this problem is due to the fact that most university outputs have not acquired the necessary skills to meet the market needs. Accordingly, based on the findings by González-Serrano et al. (2017), Senne (2016), Ratten (2010, 2011, 2014), Smith and Westerbeek (2007) indicating the great importance of entrepreneurship in the field of physical education, the potential of the curriculum can be used to teach entrepreneurship to physical education graduates.

The condition of each of these disciplines in the physical education bachelor's degree program in Iranian universities regarding the presence of entrepreneurial competencies is discussed and evaluated in the following paragraphs. The findings of this study about entrepreneurial knowledge competencies showed that entrepreneurial knowledge competencies have received little attention in the curriculum headings of the humanities disciplines in the physical education program, but no attention in the sports sciences and biology disciplines. The possibility of education in competencies of this component including business ethics, business plan, business internationalization, business start-up, business rights, entrepreneurial marketing, and product design does not exist in the curriculum headings of these disciplines. This is while entrepreneurship in every career requires a series of regulations and relevant knowledge. Thus, entrepreneurs should have learned the necessary knowledge about the method and regulations of that career, and should have gained its internal and external conditions before establishing their idea. Therefore, it is realized that to instigate entrepreneurial knowledge competencies in students, it is necessary for policy-makers and curriculum designers in this field to pay specific attention to integrate these components in students' curriculum.

Another finding of this research about entrepreneurial attitude competencies indicated that in the sports sciences discipline in the physical education program, only risk-taking spirit was mentioned while other components were not considered. In the humanities and biology disciplines of the physical education program, no attention was paid to the components of entrepreneurial attitude in the curriculum headings despite the fact that the attitude factor significantly moves students toward entrepreneurship. Entrepreneurs are aware of their own weak points. By being aware of such traits, they try to make the best decisions to avoid regression in their business. These people, in addition to having risk-taking spirit and creativity, by their great self-confidence, patience, and perseverance, show great tolerance for failures and criticisms. These people have internal control center. That is, instead of attributing their success and failure in business to chance and events while considering their own decisions to be ineffective, they regard all the surrounding events as having resulted from their own behavior. Moreover, these people, after gaining independence, in addition to performing all activities and tasks as desired, take full responsibility for the results of all their actions. Therefore, it is essential to include attitude components such as self-awareness, perseverance, tolerance of ambiguity, internal control, critical thinking, creative thinking, independence, entrepreneurial self-efficacy, optimism, adventure spirit, risk-taking spirit, and dreaming in the curriculum headings of textbooks related to these disciplines in the physical education program. Moreover, the findings of this study about entrepreneurial awareness competencies showed that in the humanities discipline in the physical education bachelor's degree program, computer skills, and using research in business competencies were considered. However, competencies of connecting new information with prior knowledge, assessment of new information, skills in selecting the best media to communicate the message, and forecasting were not defined in this discipline. In the sports sciences discipline of the physical education program, only skills in using research in business received attention, while the other competencies like skills in searching for new information, connecting new information with prior knowledge, assessment of new information, skills in selecting the best media to communicate the message, computer skills, and forecasting were not defined in this discipline. As for entrepreneurial opportunity creation competencies, the findings of this research showed that in the humanities discipline of the physical education program, decision-making and problem-solving skills

received enough attention, but competencies of using opportunities and innovation were ignored. Furthermore, in the biology and sports sciences disciplines of the physical education program, none of the competencies of opportunity creation including decision-making skills, problem-solving skills, using opportunities and innovation was considered in the curriculum headings of these disciplines. Entrepreneurs are highly skilled in searching for new information and assessment of this information, and then relating this information with their prior knowledge. These people are expert in selecting the best media to communicate their messages and visualizing an image of their future in their mind to face problems in the best way. Moreover, parallel with information technologies, they are highly capable in computer and research skills in order to develop their business.

About entrepreneurial opportunity creation competencies, the findings of this research indicated that in the humanities discipline of the physical education program, the competencies of skills in decision-making and problem solving received attention, while the competencies of using opportunities and innovation were ignored. In the biology and sports sciences disciplines of the physical education, none of the entrepreneurial competencies, that are decision-making skill, problem solving, using opportunities and innovation, was mentioned in the curriculum headings of these disciplines. This is while entrepreneurs use correct decision-making with their problem solving skills to utilize opportunities in order to increase innovation in their products or services.

The findings of this research about entrepreneurial management competencies showed that in the humanities discipline of the physical education program, the competencies of business leadership, strategic planning, staff management and financial management were emphasized. This is while the competencies of project management, knowledge management, reverse engineering, crisis management and the ability to set clear goals were ignored. In the biology discipline of the physical education bachelor's degree program, none of the competencies of entrepreneurial management including business leadership, strategic planning, staff management, financial management, project management, knowledge management, reverse engineering, crisis management, and the ability to set clear goals was mentioned in the curriculum headings of this discipline. In addition, in the discipline of sports sciences of the physical education program, the competencies of business leadership, project management, staff management, and crisis management received attention. However, the competencies of knowledge management, strategic planning, reverse engineering, financial management, and the ability to set clear goals were not taken into account. By gaining leadership competencies, entrepreneurs can, in special times, gain creativity and dynamism of space in order to reach their business goals more than before, in addition to inspiring others to do their duties. Providing financial resources and investment management are among the other competencies achieved by entrepreneurs in the organization in the best way. Moreover, by knowledge management, entrepreneurs play an important role in creation, maintenance, transmission, and application of knowledge in the organization. Furthermore, at times when the organization faces crisis, these people have the ability to manage the crisis and turn the situation back to normal.

In relation with entrepreneurial social competencies, the findings of this study showed that in the sports sciences discipline of the physical education program, the competencies of skills in maintaining relationship with employees and negotiation skills received attention, whereas the other competencies including social networking, listening skills, empathy skills and intercultural skills were ignored in the curriculum headings of this discipline. In the disciplines of humanities and biology of the physical education program, none of the entrepreneurial social competencies including maintaining relationship with employees, negotiation skills, social networking, listening skills, empathy skills, and intercultural skills was mentioned in the curriculum headings of these disciplines. The findings about the structure condition of entrepreneurial competencies in the curriculum headings of the BPEd program in universities of Iran showed that in the curriculum headings of bachelor's degree in managerial competencies had the most frequency, whereas opportunity creation, knowledge management, and entrepreneurial attitudes had the least frequency.

In addition to incorporating entrepreneurial competencies into the curricula of physical education fields, utilizing the appropriate teaching methods to improve the teaching-learning entrepreneurship process appears to be one of the main elements of the curriculum that plays a major role in the business and fostering entrepreneurial competencies, skills, and abilities of learners. In this regard, Malekipour et al. (2016) and Nová (2015) have stressed the importance of active teaching methods in the curriculum of entrepreneurship training in the field of sports science. Such methods in the entrepreneurial competencies training curriculum in the field of physical education may include teaching methods of combined learning, case study, group discussion, collaborative methods, and extra-program activities in the form of games for entrepreneurship education.

On the whole, it can be said that regarding the importance of entrepreneurship in the physical education program, it is necessary that authorities and planners of higher education take the necessary steps in order to review the curriculums and use the mentioned competencies in the curriculums of disciplines in this program. By doing this, they can help students gain entrepreneurial competencies and then move them toward entrepreneurship. As a result, they can lead universities in the country toward the third generation of universities, which is entrepreneurial universities, in addition to increasing entrepreneurial attitude in students in any position and career of their own.

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