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The crucial role of entrepreneurship education at university using different educational practices

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Abstract

In 2020, the world was unexpectedly struck by the coronavirus pandemic. Regulations introduced by the governments have affected many businesses. The key problem is a good preparation of entrepreneurs for similar crises. One of the main factors influencing entrepreneurial activities is entrepreneurship education, mainly at the university level. The article aims to analyse different education practices focused on learning entrepreneurship, especially at universities, in selected countries. The work is analytical and descriptive.

Introduction

Currently, in the era of the coronavirus, many governments have decided to introduce various restrictions which also affect the operation of many enterprises. Consequently, in such a precarious situation, there is a question about the future of those entrepreneurs who represent industries that suffered the most during the coronavirus pandemic. Thus, the key issue is linked to the changes that are taking place in the global economy in the face of the coronavirus pandemic.

Because of this difficult situation, questions have arisen about the future of entrepreneurs and entrepreneurial education. How are entrepreneurs supposed to cope in the new, post-covid world? Can entrepreneurial education help present and future entrepreneurs adapt to new challenges and find ways to overcome the new crises that will surely occur in the future?

There are several key competences that can contribute to increasing the life chances of an individual, which can be mainly associated with influencing later career prospects. According to the results of research prepared by the European Commission, participation in entrepreneurship education increases the probability of later starting a business by an average of 35% (European Commission, 2019).

Additionally, entrepreneurship education is mentioned as one of the key determinants of entrepreneurial intentions and actions (Sieger et al., 2019). What is more, the area of the entrepreneur's education is often mentioned among the other main factors influencing the failure of small enterprises, such as skills, abilities and experience (Ropęga, 2013). However, in a report by Global Entrepreneurship Monitor, entrepreneurship education at school is recognized as the weakest link in supporting entrepreneurship (Bosma et al., 2020). Despite the lack of experience and financial resources, young people are still interested in entrepreneurship, but their intentions are not consistent with their actions. Ten years ago, while almost 15% of the adult population in the European Union countries were self-employed, and in the population aged 15–24,only 4% (European Commission, 2012).

1. The theoretical framework of the research

In the modern world, the domain of competitive position is no longer only lower labour costs or lower tax burdens, but innovation. Entrepreneurship, which is often equated with creating innovation, is now considered an important factor of economic development. For this reason, well-educated entrepreneurs can be responsible for the diffusion of new ideas and technologies in the future (Sá and Kretz, 2016).

Often when we analyse the resumes of entrepreneurs we know, it seems that managing a small business requires mainly practical skills, while formal qualifications are less important. As a result, starting a business has in the past been mainly an alternative career path for those people who had practical rather than academic skills (Stokes and Wilson, 2010). Although entrepreneurs in the past did not use the achievements of entrepreneurship education, they had to learn from other sources than formal education. Nowadays, their successors acquire knowledge and skills from educational programs which are dedicated to educating entrepreneurship (Davidsson, 2008).

Nowadays, this trend has changed; entrepreneurs, especially women, more and more often possess higher education diplomas. Additionally, it is assumed that an individual can make use of entrepreneurial opportunities more often when they are better educated (Stokes and Wilson, 2010; Kailer, 2009).

The term entrepreneurship education itself (Figure 1) can refer to both general issues related to the acquisition of entrepreneurial skills and the process of starting one's own business. On the one hand, according to the narrow defin-

ition of entrepreneurship, it is mainly connected to the identification of entrepreneurial opportunities, self-employment and business development. On the other hand, the broader definition of entrepreneurship education (also known in the literature as entrepreneurial education) includes creativity, personal development, independence and orientation to action, which are not necessarily related to creating the new enterprise. The definition that we adopt has a significant impact on educational goals (OECD, 2015).

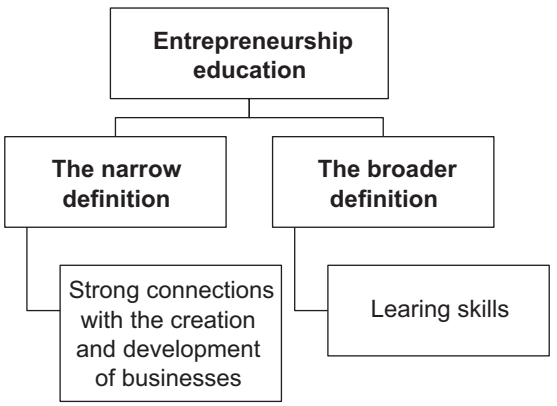

Figure 1. Definitions of entrepreneurship education

Source: own elaboration.

The way entrepreneurship is presented in the educational process is very important. Therefore, entrepreneurship education is divided into three forms (Figure 2). The first is associated with the theory of entrepreneurship, focused on a general understanding of this phenomenon. What is more, it is the most frequently used form of entrepreneurship education at universities. The second is related to providing entrepreneurs with the necessary knowledge and skills. The third form, on the other hand, is often based on experience through action, through which students learn entrepreneurship. Contrary to stereotypes, it should be offered as a general method of human action, including team action, rules and techniques that can be learned through education (OECD, 2015).

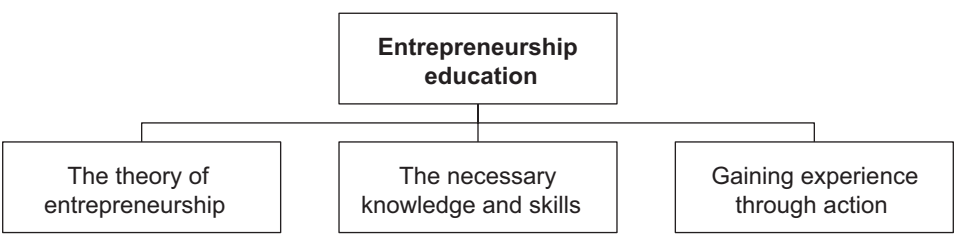

Figure 2. Three forms of the entrepreneurship education

Source: own elaboration based on OECD, 2015.

Consequently, entrepreneurship education should involve the active participation of students in the classroom as well as the consideration of decision problems (OECD, 2017). It is very important during entrepreneurship classes to focus on activities consisting of searching for an attractive idea for students' enterprise. At the same time, equally important are activities for current entrepreneurs, which subjects should be concerned on issues related to small business management (Cieślik, 2008).

The main aim of the study is an attempt to show the opportunities offered by different forms of entrepreneurship education. Consequently, conclusions derived from that research could be valuable for lecturers, entrepreneurs and also law-givers, aiming to improve entrepreneurship education at universities.

2. Research methodology

The article incudes the analysis of the entrepreneurial education in selected countries which were highly rated in the GEM 2020 report — the United States of America, United Kingdom, Germany, United Arab Emirates, Qatar, Sweden, Norway and Switzerland (Bosma et al., 2020). To that aim, in the article are analysed reports of international organisations — mainly OECD and the European Union — and papers dedicated to the subject of entrepreneurial education in the countries which have been surveyed. These analyses will illustrate how important the system of entrepreneurship education is in those countries and which practices are used in teaching.

3. Early contact with entrepreneurship at school

Education for entrepreneurship has two main objectives: to give new students entrepreneurial skills and help them make decisions about becoming an entrepreneur (Weber, 2012). Consequently, the school's task is to provide its graduates with the basics of general knowledge, but at the same time, that school should develop entrepreneurial attitudes among young people. In this way, learning practical skills will make it easier for graduates to find a job or start their own business (Kołodziejczyk and Polak, 2011).

Entrepreneurship education should become an element of curricula in the early years of primary school (European Commission, 2016). For children, the first contact with entrepreneurship is very important. However, it is not strictly linked to starting one's own business, but much more broadly, as developing creativity, self-confidence, encouraging cooperation in a group, emphasizing the search for individual abilities of a given student (Figure 3).

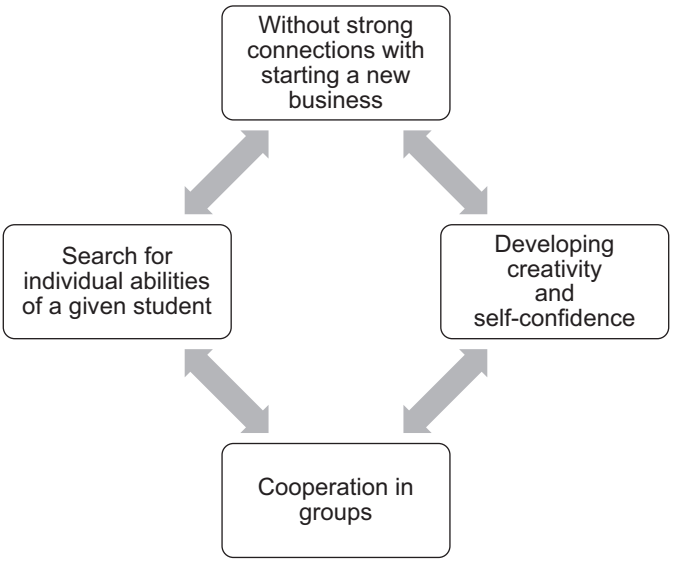

Figure 3. Entrepreneurial education in primary school

Source: own elaboration.

This type of teaching is practised in Sweden. In this country, entrepreneurship — especially in secondary education — has been present in the curricula for decades. The idea of entrepreneurship appeared in the local educational system in 1980. In the 1990s, more advanced implementation programs for entrepreneurial education were launched, but they were not common in the whole country. At the same time, among teachers, a traditional narrow view of entrepreneurship still dominated. Sweden's advantage is a specific entrepreneurship education strategy since 2009. The official strategy, which has become part of the curriculum, allows us not only to encourage students to create new enterprises, but also to learn valuable, entrepreneurial skills useful in life.

Additionally, entrepreneurship education in Sweden focuses more on the aspects of learning by doing, rather than on theoretical discussions about the definitions of entrepreneurship, connected with achievements of well-known scientists linked with entrepreneurship, like Schumpeter. This is because frequently, students involved in entrepreneurial activities can learn by doing, but also they are not always aware of that process — just like entrepreneurs.

The most visible effect of the implementation of the entrepreneurship education policy in the educational system in Sweden is the increased complexity of the field of entrepreneurship education itself. As a result, entrepreneurship education in a broader context is present throughout the school system in Sweden, while entrepreneurship education is rather limited to economic schools. In addi-

tion, the goals of entrepreneurship education are increasingly being realized in cooperation with partners outside the school (Hoppe, 2016).

Norway is also currently considered one of the leaders in the field of entrepreneurial education. The vast majority of secondary schools in Norway offer entrepreneurial education as part of knowledge imparted in various subjects, as well as through the usually compulsory interdisciplinary entrepreneurship projects in the form of mini-enterprises, organized by the Norwegian branch of Junior Achievement — Young Enterprise (Johansen, 2014). At the same time, many upper secondary schools create programs to promote youth entrepreneurship, also organizing interdisciplinary entrepreneurship projects with the involvement of local employers and the public sector (Johansen and Schanke, 2014).

In contrast to the aforementioned examples, Germany has a more pragmatic approach to teaching entrepreneurship. Entrepreneurship education in that country is offered mainly in secondary schools, promoting the classic model of entrepreneurship, which means self-employment (OECD, 2018). However, students can count on out-of-school projects, such as the national Unternehmergeist macht Schule (Entrepreneurial Spirit in Schools), a platform connecting schools and businesses, helping students to learn about different career paths and experience self-employment (European Commisson, 2015).

It is evident that many countries have no uniform strategy in teaching entrepreneurship. Support for entrepreneurship in Switzerland varies from region to region (Tajeddini and Mueller, 2009). It is the same situation in the UK, where there is no uniform, national strategy in that area. However, there are different models of entrepreneurship education in individual regions. In primary and secondary schools in the greater part of the UK (England, Wales and Northern Ireland), each teacher is individually responsible for planning entrepreneurial lessons which, however, must be consistent with the education system (Bourgeois, 2012).

At the same time, to supplement the educational system at school, there are several organizations which help teach entrepreneurship, like Young Enterprise (YE), which is a well-known non-profit company using a wide range of programs. It operates directly in England and Wales, while in Scotland and Northern Ireland, independent organizations work with YE. Therefore, students aged 8 to 11 can very early gain valuable experience related to running their own business. Similar projects are also present in secondary schools (European Commission, 2016).

Also in Switzerland, entrepreneurship education in secondary education is not common. The exception is the YES program (Young Enterprises Switzerland), which supports, like its counterpart in the UK, practical educational programs for entrepreneurship in Switzerland (Swiss Startup Monitor, 2017).

A similar situation exists in the Netherlands, where entrepreneurship education is not strictly defined in the curriculum, but some schools offer it. In addition, through Jong Ondernemen's programs, students in primary and secondary schools can create their mini-enterprise. In the case of primary schools, entrepreneurial

education focuses on entrepreneurial behaviour, i.e. creativity, problem-solving or developing social skills (Bourgeois, 2012).

Some Arab countries have recently taken a high position in entrepreneurship education rankings. One of them is Qatar, where the availability of entrepreneurship education in primary and secondary education has most often been dependent on the enthusiasm and initiative of individual teachers, school management and their collaborators, enterprises or educational institutions, as well as their support networks (Gangi, 2017). The second example is the United Arab Emirates, where in recent years, the government has significantly increased its support for small and medium-sized enterprises, also focusing its activities on stimulating the entrepreneurial spirit of citizens, also by entrepreneurship education (Tong et al., 2012).

To summarize, learning entrepreneurship at an early age can increase creativity, innovation and independence. At the same time, it increases tolerance of risk and allows one to learn from their failures. An appropriate educational policy can help to increase entrepreneurial attitudes. As a result, national regulations in the field of entrepreneurship education are crucial for the success of that education (El-Sokari, Van Horne, Huang and Al Awad, 2013).

4. Educational practices in entrepreneurship education at the university

At the same time, it should be noted that although teachers in primary and secondary schools have the opportunity to promote entrepreneurial attitudes, universities play the crucial role in influencing the choice of career as entrepreneurs by students at a later date. It is linked with transferring important and useful knowledge in the field of enterprise, which takes place in higher education. Therefore, by using knowledge and skills acquired during education at the university, graduates can develop newly established enterprises (Potter, 2008). Consequently, education for entrepreneurship conducted in higher education institutions should play a special role (Volkmann, 2009).

The history of entrepreneurship education at universities is linked to achievements in the area of research on entrepreneurship, especially in the USA. Two Americans were pioneers of entrepreneurship as an academic subject. In 1947, the first academic entrepreneurship training course, New Business Management, appeared. Six years later, Peter Drucker created a course dedicated to entrepreneurship and innovation at the University of New York, and his book about it gained worldwide fame (Klandt, 2006). That was only the beginning of the presence of entrepreneurship education at universities, which was not connected with the rapid dissemination of that. The dynamic process of development of entrepreneurship education in the USA started later, in the 1970s, and continues to this

day. It is certainly supported by the strong rooting of individualism in American culture (Sahaym et al., 2018; Pinillos and Reyes, 2011).

In the USA, entrepreneurship practices are used in a wide range of areas. In most American universities, all students come into contact with entrepreneurship issues during their studies. For example, Stanford University offers a wide range of courses, some of which are part of the obligatory curriculum, while others are electives. They are focused on issues related to entrepreneurship, transfer of technology, and sharing knowledge with established technology companies (Wilson, 2009). Moreover, in the USA, successful entrepreneurs usually have higher academic degrees; often, very talented people are invited to elite universities (Elert et al., 2017).

Another important factor influencing entrepreneurship education at universities in the USA is the fact that higher education institutions are under pressure from the expectations of students who pay high tuition fees, expecting in return a high degree of usefulness of the curricula. Another important thing is the remuneration of university employees, which reflects not only the importance of a given field of knowledge for the economy, but also the individual achievements of an academic teacher, both in the field of research and teaching.

What is more, another positive factor influencing entrepreneurial education in the USA is deregulation: American universities are characterized by a high degree of autonomy. Therefore, they can take advantage of opportunities to build their strengths, while cooperating in research and teaching at the same time. Moreover, the USA is still increasing the internationalization of university activities, such as cross-border cooperation with universities from Europe. In addition, university-business collaboration is also of key importance. A good example is the entrepreneurship sector in Silicon Valley, which has evolved in close collaboration with researchers at the neighbouring Stanford University (Elert et al., 2017).

A similar situation in that area also exists in the Netherlands, where there are more and more common public-private partnerships between vocational education, universities and the business sector (OECD, 2019). Likewise, in the United Kingdom in recent years, there is increasing pressure on universities to fulfil their mission of knowledge sharing in its broader context, by the commercialization of research and partnership between universities and businesses. Moreover, in the UK, universities are encouraged to increase the amount of research. Consequently, many higher education institutions in that country have a strong entrepreneurial culture associated with the multidimensional entrepreneurial practices of their scientists (Abreu et al., 2016). Apart from that, an important source of financing for entrepreneurial education programs in the UK is domestic funds, such as the Higher Education Innovation Fund, which enables each university to obtain significant financial resources for distribution between its units (Bischoff, 2017).

The outstanding model of entrepreneurship education is practised in Cambridge University, which offers several dozen entrepreneurship courses in a wide

range of undergraduate and postgraduate studies, including engineering studies. They are led by both faculty employees and real entrepreneurs, whose main aim is to encourage students to solve real business problems. Their mission is complemented by student clubs and interdisciplinary university projects. For example, Cambridge Enterprise facilitates the commercialization of technology and the capitalization of knowledge, also enabling students and graduates to obtain consulting and support in gaining funds for setting up a new business. Therefore, Cambridge is proof that entrepreneurship is strongly integrated with local culture — more than 1500 high-tech companies had been established, often in cooperation with the University of Cambridge. Consequently, the Cambridge region is well-known for its successful entrepreneurial ecosystem, also known as Silicon Fen (Bischoff, 2017).

That model is also implemented in the Netherlands, where colleges offer the support of trainers and mentors, who, like in the USA, come not only from universities but also from enterprises. They can be a good inspiration and support for future entrepreneurs among students and graduates. What is more, the subject of students' thesis is more and more often connected with their experience as employees, focusing on solving problems typical for companies. Additionally, the importance of regional entrepreneurial ecosystems in the Netherlands has increased in recent years, which is linked with a higher level of cooperation between often rival institutions. A good example of a successful initiative in that area is Startup Delta, which combines all Dutch ecosystems into one centre. In this way, it helps in the development of various types of start-ups, at the same time allowing for the exchange of knowledge and best practices in entrepreneurship. A remarkable sign of the Netherlands' policy focussed on entrepreneurship is also reflected in the evident specialization of individual centres in the field of innovative research and development (OECD/EU, 2018).

A similar situation takes place in Switzerland (Swiss Startup Monitor, 2017). Most universities in this country offer entrepreneurship programs, providing education in both theoretical and practical aspects of entrepreneurship. As a result, the increase in the entrepreneurial tendency of Swiss students is evident (Ruda, Grüner, Christ and 2014).

In the United Arab Emirates, there are also many programs and initiatives at the university level that have been designed to foster an entrepreneurial culture among young people. A good example is the initiative Beyond the Pitch, related to innovative methods of teaching entrepreneurship. The main aim of that organisation is to inspire students from Emirates to find their path to success. In addition to theoretical classes, there are also simulations of business activities, internships in selected companies, as well as meetings with their owners. That cooperation is also continued outside the university, where students of entrepreneurship courses can receive help from business advisors and collect contacts from the virtual community (El-Sokari et al., 2013).

In Qatar, there were only a few entrepreneurship courses for many years, from the 1970s, existing only as part of the economic and business specialization at the University of Qatar. There was neither a major nor a specialization in entrepreneurship in undergraduate and postgraduate studies. Education for entrepreneurship appeared at the University of Qatar very late, after 2011, as part of the implementation of the Qatari Strategy for the years 2011–2016. As the oldest and main university in that country, the University of Qatar decided to implement entrepreneurship education in its educational programs. Additionally, that university launched a specialization in entrepreneurship for undergraduate students when parallelly future engineers started to teach entrepreneurship.

In addition, within the University of Qatar was established the entrepreneurship centre which aim is to disseminate an entrepreneurial culture not only among students of that university but also among lecturers. What is more, the University of Qatar gained cooperation from the enterprise sector and other academic centres. Now, students are aware of the importance of entrepreneurship, and an example of that is that entrepreneurship often becomes a second specialization for students while the percentage of its graduates is still growing (Gangi, 2017).

In turn, German entrepreneurship education is exceptional. Universities have general entrepreneurship courses for all students and some that are dedicated to business students. Although the majority of entrepreneurship lecturers in Germany have completed a degree in economics, in some cases, universities employ entrepreneurs with research and teaching ambitions. As a result of this policy, more and more students have experience of being an entrepreneur. It is worth noting that in the case of Germany, the percentage of potential entrepreneurs is much higher than in other countries among doctoral students and academics cooperating with German research institutions (Klandt and Voklmann, 2006).

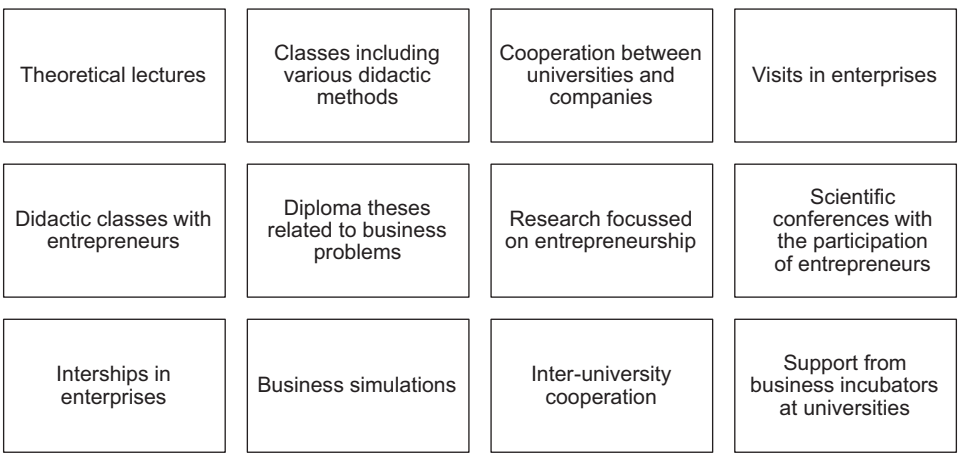

Figure 4. Practices of promoting entrepreneurship at the university

Source: own elaboration.

To summarize, entrepreneurship education at a university should be the culmination of entrepreneurial education with a wide range of methods (Figure 4). At this educational stage, the student should be equipped with specialist knowledge useful in running a business. To achieve that aim, one way is classes about the principles of running a business.

However, universities all over the world implement various didactic forms, activating students during workshops and business simulations, meetings with entrepreneurs used to broaden the knowledge acquired during the lectures. At the same time, a constant element of study are internships in enterprises which can give students a good opportunity to confront the theoretical knowledge acquired at the university with the economic reality. The result of such internships is also diploma theses based on the working experience of students.

What is more, universities more and more often cooperate with enterprises, as they realize benefits from equipping future graduates with the skills required in the labour market. The cooperation with enterprises can be associated with valuable, practical projects conducted by scientists based on experience gained from the business. Moreover, it is particularly important to support potential entrepreneurs through tools such as business incubators. Additionally, cooperation with enterprises can be associated with valuable, practical projects conducted by scientists based on experience gained from the business. A good example would be universities that cooperate not only within the framework of regional, but also international, agreements.

5. The key role and aspects of entrepreneurship education at universities

Entrepreneurship education should become an integral part of the curriculum at all stages of education (Figure 5). In the early years of education, it should be part of other subjects and be oriented towards stimulating creativity, orientation to action and independence. Consequently, the emphasis should be on teaching all life skills, not only those that are useful in the enterprise. Later, at subsequent stages of the educational process, starting from the secondary school level, entrepreneurship should constitute a separate subject, which is mainly focused on acquiring skills in the field of starting and running a business (Johansen, 2014).

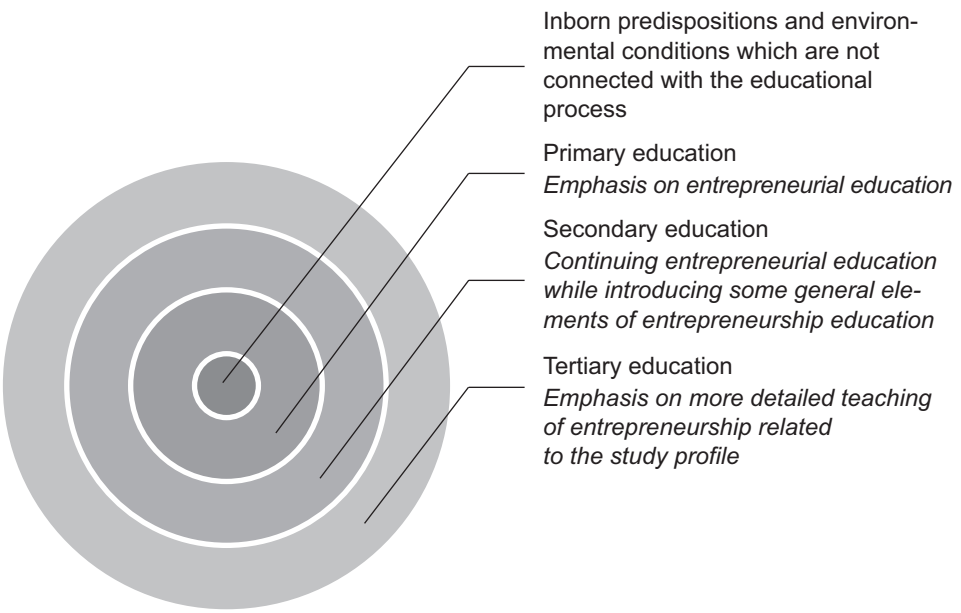

Figure 5. The stages of the educational process and their role in the entrepreneurship education

Source: own elaboration.

It is worth noting that the decision to start a business often appears not strictly after graduation, but after the initial period of employment when graduates have the opportunity to gain the necessary experience in the field of enterprises and markets. Graduates with a good business idea are often under a lot of pressure — not only economically but also culturally — to find a job quickly. They are at a very favourable time in their life to start their own enterprise as they still have relatively few obligations and needs. However, universities are trying to fulfil their role in terms of providing expert knowledge, while sometimes neglecting the important issues related to the creation of a strong academic community focused on scientists, students and entrepreneurs (OECD, 2018).

What is more, supporting entrepreneurship by universities is in this context linked with support of the creation of new ventures. However, skills training is also important, because it is focussed on certain skills and competencies, especially those related to problem-solving, creativity and interpersonal skills. This can lead to the development of those entrepreneurial skills and attitudes that are crucial to starting and running a business in the future. The clue task for the university and the business community is to recognize and promote skills that enhance the capabilities of entrepreneurship (Potter, 2008).

However, setting up one's own enterprise does not mean that its founders will be entrepreneurs forever (Sieger et al., 2019). The universal nature of entrepreneurial education should be connected with a starting point for the development of relevant competence, regardless of the subsequent entrepreneurial career, also

applicable to the function of the management in the enterprise (Volkmann et al., 2009). Therefore, education for entrepreneurship can be useful not only for future entrepreneurs, but also for representatives of various industries and social groups such as students of various faculties, corporate employees, politicians, financiers, industry consultants, doctors, lawyers, programmers and innovators (Manimala and Thomas, 2017). A good idea is the increasing implementation of educational programs about entrepreneurship for participants of various types of postgraduate and doctoral studies and employees of the research universities — especially technical ones (Cieślik, 2008).

Though it is not possible for any variable, such as the aforementioned entrepreneurship education, to lead directly to the success of a given entrepreneur without the participation of other factors, it was proven that many other variables affect an entrepreneur's ability to succeed (Potter, 2008).

Consequently, it is difficult to identify success factors common to all dynamically developing enterprises, because it is related to the diversity of economic sectors as well as individual development paths. Entrepreneurship education depends in this context on the fact that knowing the barriers to starting entrepreneurship perceived by students and their expectations regarding education, it is possible to create programs to support entrepreneurial activities of young people that meet their needs. This can be achieved by the best practices applied at universities (Volkmann et al., 2009; Kołodziejczyk and Polak, 2011).

What is more, the university must reduce uncertainty among students, which will allow them to better prepare for very different, unpredictable challenges (Potter, 2008). Consequently, entrepreneurship education in higher education should be offered in all fields of study to unlock the entrepreneurial potential of students while increasing their chances of success as entrepreneurs or employees (El-Sokari et al., 2013).

Conclusions

The first goal of entrepreneurship education is connected to convincing young people that they can become entrepreneurs and start their own businesses. Consequently, students should be equipped with the necessary skills to achieve that goal (European Commission, 2016; Potter, 2008). Therefore, if the state aims to increase the number of innovative enterprises, it should create appropriate conditions for the development of innovative attitudes previously at school. As a result, graduates are more likely to have a successful career as entrepreneurs (Kołodziejczyk and Polak, 2011).

However, traditional teaching transfers only a part of the knowledge useful in the future career of an entrepreneur. In the case of teaching entrepreneurship, teachers often decide to implement various modern teaching methods so students

can learn entrepreneurship through action mainly by case studies, business simulations, meetings with entrepreneurs. The mentioned forms of education usually allow students to train to work in a group and prepare public presentations. At the same time, universities more and more frequently pay attention to educating well-educated, entrepreneurial graduates who will work not only for profits but also for the whole society. To that end, entrepreneurial learning should be commonplace in universities. Entrepreneurial skills will be useful not only for future entrepreneurs but also for employees. It is connected with the fact that everybody has to be entrepreneur in life (Manimala and Thomas, 2017; Jarman, 2013; Volkmann et al., 2009; Cieślik, 2008).

Higher education plays a crucial role in shaping entrepreneurial attitudes, but there are many other factors that have an influence on the creation and later success of the new enterprise, such as the field of study, gaining relevant work experience, and finding shareholders. It should be remembered that ultimately, it is not the number of graduates who will set up their own business that is decisive, but the percentage of graduates who feel satisfied with being an entrepreneur, that is of key importance (Sieger et al., 2019).

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