

Entrepreneurship Education at Secondary Level in Transition Economies: A Case of Poland

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ABSTRACT

Objective: The goal of the paper is to present changes in entrepreneurship education (EE) in Poland at lower and upper-secondary schools after the reform of the education system of 1999 in the light of the national core curriculum (NCC) analysis.

Research Design & Methods: The analysis of the NCC was based on the method and criteria developed in the European research project Fifobi and includes four basic competencies related to the following: economy knowledge, business knowledge, social competences and self-competences associated with entrepreneurial attitudes.

Findings: The analysis of content distribution of the NCC for secondary schools indicates that competencies in the field of economic knowledge prevail, the contents of all entries in this field are based on the obligatory subjects “civics” (lower-secondary) “Basics of Entrepreneurship” [“BE”] (upper-secondary). Social and self-competencies are treated quite marginally in the NCC.

Implications & Recommendations: The need to clarify the records of the NCC and modification of the NCC records in terms of entrepreneurship so that a greater emphasis was placed on social and personal competencies, not only the competencies based on economic knowledge.

Contribution & Value Added: The article can contribute to a better understanding of the level and structure of EE in Poland. The research conclusions may serve as guidelines to educational policy, not only in Poland but also in other countries transforming their economies, and to international comparative studies.

Article type: research paper

Keywords: curriculum development; entrepreneurship education (EE); entrepreneurship curriculum; national core curriculum (NCC) transition economies; secondary education

JEL codes: A21, I21, L26, P36, P46

Received: 15 January 2016

Revised: 20 February 2016

Accepted: 22 February 2016

Suggested citation:

Rachwał, T., Kurek, S., & Boguś, M. (2016). Entrepreneurship Education at Secondary Level in Transition Economies: A Case of Poland. *Entrepreneurial Business and Economics Review*, 4(1), 61-81, DOI: <http://dx.doi.org/10.15678/EBER.2016.040105>

INTRODUCTION

The main task of entrepreneurship education (EE) is to prepare young people to enter the labour market, as well as to develop a sense of initiative and entrepreneurial skills among them. Therefore, it is important how national education systems adapt to changing skill requirements within a globalised economy, in particular in the post-communist countries which joined the European Union (e.g. Berger et al., 2012; Tracz, 2005; Wach, 2008, 2013, 2014a).

The process of transformation of the national economy in Poland and other Central and Eastern European countries, associated with the transition from the socialist, centrally planned economy to the market economy, occurring under conditions of the processes of globalisation of the world economy and European integration, affects the need for proper preparation of the society to function in an increasingly complex socio-economic reality. This preparation takes place primarily within the education system, through the development of entrepreneurial attitudes at all stages of development of a young person, from the early school stage to higher education institutions.

The role of school education in shaping entrepreneurial attitudes of a person ready to undertake different kinds of challenges in the market economy is all the more important in Poland and other Central and Eastern European countries. This is a consequence of the situation that often education and professional experience of parents of the youth turns out to be insufficient, given the different conditions of the centrally planned economy in which a significant proportion of parents lived for a long time. In this situation it is difficult to transfer experience related to the functioning in a market economy, especially in running an own business. The development of entrepreneurship is considered a particularly important factor of economic growth in the transition countries. In the time of centrally planned economy and at the beginning of the process of economic transformation, EE was limited to specialised schools and higher education institutions at courses in economics. This kind of education within general education for all students in primary and secondary education was virtually non-existent. A student was not prepared to set up or to run his or her own enterprise, to manage the household budget, to know how to invest available financial resources (e.g. on the stock exchange or in investment funds), to open a bank account, or to obtain credit. Students were not prepared for efficient and effective interpersonal communication, including resolving conflicts or leading negotiations, which are the key competencies deciding of a man's competitiveness nowadays. Thus, students (except for graduates of some business schools), were not prepared well to participate in social and economic life, including being professionally active and establishing own businesses (Rachwał, 2005, 2010; Kurek, Rachwał, 2010a,b, 2011).

LITERATURE REVIEW

Changes in EE have been researched into by some scholars from Poland. Particularly, noteworthy are works of Daszkiewicz (2013), Nowak (2014), Rachwał (2004, 2005, 2006), Wach (2008, 2013, 2014a) and Ziolo (2012) that attempt to assess the role and position of entrepreneurship in the education system in Poland, including also the analysis in the

context of other European countries (Wach, 2014a; Kurek & Rachwał, 2010a). They highlight a large role of entrepreneurship in education, as well as EE in the socio-economic development, especially economies in transition, such as Poland (see Wach, 2015a). In this regard, Ziolo and Rachwał (2012) indicate a deep association between entrepreneurship and geographical research focused on the development processes of spatial systems in different scales (local, regional, national ones). Much of the research is devoted to entrepreneurship at a higher level of education (e.g. Dorocki & Borowiec-Gabryś, 2014; Gawel, 2014; Pietrzykowski, 2011; Piróg, 2015; Płaziak & Rachwał, 2014); especially the impact of EE on entrepreneurial intentions of students and graduates (Jankowska & Pietrzykowski, 2012; Kilar & Rachwał, 2014; Wach, 2015b; Zbierowski, 2014), which refers to research undertaken in other countries (e.g. Bae et al. 2014; Byabashaija & Katono, 2011; Claar et al., 2012; Fayolle & Gailly, 2015; Koçoğlu & Hassan, 2013; Kuehn, 2008). The authors also undertake studies on such issues as the position, aims and teaching methods of EE in Poland at the lower levels of education (e.g. Borowiec & Rachwał, 2011; Brzozowski, 2014; Rachwał, 2004, 2005, 2006, 2009; Solińska, 2014; Tracz & Rachwał, 2007, 2008; Tracz, 2005, 2006; Wach, 2007). They also stress the importance of the use of modern teaching aids, including multimedia support and ICT tools (Rachwał, Ratajski & Zajęc, 2012; Soczówka, 2007, Śrutowska, 2006; Szmulczyńska, 2006). Aims and the content of EE in the NCC in Poland were analysed by Rachwał (2004, 2006). This author made also the critical evaluation of program changes in the field of EE (Rachwał, 2009). The analysis of the role of the curriculum changes for education and of the competences of entrepreneurship teachers was conducted by Tracz and Rachwał (2007, 2008). The analysis was supported by the experiment of implementing the EU-funded education project 'Step into Entrepreneurship', whose aim was to design and implement a pilot testing of innovative program for entrepreneurship development in secondary schools in Poland (Rachwał, Ratajski & Zajęc, 2012). Żur (2014a) addresses the role of inspiration in EE. Various researchers also undertake the surveys of the opinions of students, their parents and teachers on the state of EE in Poland, including the opinions on introducing "Basics of Entrepreneurship" ("BE") as a new school subject to secondary education (Osuch & Osuch, 2006; Osuch, 2012; Tracz, 2015; Ziółkowska-Weiss, 2014). To a lesser extent, the researchers undertake a detailed analysis of the content of education based on the curriculum (the NCC or school curricula), which is the subject of this article. Such studies, limited in scope usually to groups of students from one or few secondary schools, take researchers and entrepreneurship teachers, but rather they relate to the expectations of students in relation to the EE curricula (Sowisłok, 2012; Świętek, 2012; Ziółkowska-Weiss, 2014). The findings of the surveys conducted by Ziółkowska-Weiss (2014) and Świętek (2012) show that students positively evaluate the introduction of a new subject "BE" to schools and most of them recognize it as a one of the most important school subjects, useful in adult life. Ziółkowska-Weiss (2014) confirms that students feel that in EE curricula and training programmes too much time is devoted to issues related to the functioning of economy and the economic fundamentals of entrepreneurship, and too little to the development of social and personal entrepreneurial skills.

The issue of EE curriculum and good preparation of young people for life in the new economic reality in schools is of particular interest also in other European countries, not

just those transforming their economies, which also frequently take up the work on reforming education systems in such a way as to encourage the development of business competencies (Canning, Berger & Pilz, 2012; Berger & Pilz, 2012; Figueira, 2012; Gönczöl & Bognár, 2012; Kurek & Rachwał, 2010; Kurek, Rachwał & Szubert, 2012a; McGlynn, Canning & Dolan, 2012; Muzis, Liepins, Roze & Krastins, 2012; Schwarz, 2012). This is due to the fact that entrepreneurship is one of the pillars of the European education system (Commission..., 2006; *Recommendation...*, 2006), as so called key competence (*Key Competencies*, 2002).

MATERIAL AND METHODS

The goal of the article is to present changes in entrepreneurship education (EE) in Poland at lower secondary (gymnasium) and upper secondary (post-gymnasium) schools after the reform of the education system of 1999 in the light of the national core curriculum (NCC) analysis.

The research on the NCC records is mainly based on the criteria of analysis (described in details later in the article) developed within EU-funded international project *Fifobi: Fit for business - developing business competences in school*, conducted in the years 2009-2011 (Kurek & Rachwał, 2010b; Pilz, 2012; Canning, Berger & Pilz, 2012), especially on the results of the analysis of lower-secondary education made by the Polish team (Kurek, Rachwał & Szubert, 2012a). These results of the research on the NCC for gymnasium have been extended to general education (applicable to all students) in secondary schools. The findings from the analysis of the NCC is presented against the background of changes in the position of EE in the education system in Poland after the 1999 reform.

This research is also based on previous analyses of the authors, referring to changes in entrepreneurship education in Poland at various levels of education (e.g. Borowiec & Rachwał, 2011; Kurek & Rachwał, 2010b, 2011; Kurek, Rachwał & Szubert, 2012b; Rachwał, 2004, 2005, 2006, 2009, 2010; Tracz & Rachwał, 2007, 2008; Zioło & Rachwał, 2012).

RESULTS AND DISCUSSION

Entrepreneurship Education in Poland at Secondary Level

In addition to changes of institutional and organisational nature, new goals and teaching contents were introduced in the new education system, according to 1999 reform, with new subjects, such as "Basics of Entrepreneurship" ("BE") whereas the teaching contents of the remaining subjects, such as Civics or Geography were significantly modernised. In this respect, the introduction of a new obligatory subject "BE" for all students in secondary (post-gymnasium) schools, and changes of the goals and teaching contents of the subject Civics in gymnasium, in which elements of entrepreneurship were included, are particularly noteworthy (Rachwał, 2009). The new core curriculum for gymnasium was applied from the school year 2009/2010 in the first years of gymnasium, whereas in the post-gymnasium school from the school year 2012/2013.

In gymnasium, the contents of entrepreneurship education have been included in the subject of Civics, although, as the experience and earlier research (Kurek, Rachwał

& Szubert, 2012a) show, these contents are marginalised by teachers of that subject. In post-gymnasium schools ending with secondary school final exams there are planned 60 hours of “BE” and 30 hours of an optional subject of Economy in Practice (“EP”; if a student chooses it), whereas, in vocational schools, 60 hours of “BE” without the possibility to conduct that optional subject.

For the Civics subject which is conducted at the lower-secondary educational level (gymnasium), the following groups of entrepreneurship teaching contents are outlined (numbering in accordance with the core curriculum, the remaining items refer to civic education):

24. Work and entrepreneurship.
25. Market economy.
26. Household.
27. Money and banks.
28. National economy.
29. The enterprise and economic activities.
30. School and profession choices.
31. Ethics in economic life.

Also groups of contents partially connected with entrepreneurship:

20. European integration (including EU budget).
21. Poland in the European Union (including the Union funds).
23. Problems of the contemporary world (including economy globalisation).

Whereas groups of contents for the subject “BE” conducted at the upper-secondary educational level (post-gymnasium school) include the following items:

1. The entrepreneurial person.
2. Market – features and functions.
3. Market institutions.
4. State, economy.
5. The enterprise.
6. Labour market.

Group content within the subject “EP” optionally implemented in secondary schools include the following:

1. Project planning of economic character.
2. Analysis of the market.
3. The organisation of the project.
4. Evaluation of the effects of actions.

The analysis of the detailed records of the core curriculum and the distribution of content groups between the two education levels indicate that the scope of contents for gymnasium is too vast in comparison to post-gymnasium school. It appears that with such a limited number of content hours in gymnasium (ca. 20 hours), the problems of conducting economic activities (item 29) as a serious issue demanding a more mature approach, should be transferred from gymnasium to the secondary school level, or the number of hours allotted for the entrepreneurship contents in gymnasium should be increased (Rachwał, 2009).

In response to the needs arising from the institutional reform of the education system and the curriculum reform of EE, as part of this work a concept of teaching a new subject in secondary school, "BE", was developed. As a result, a number of editions of specialist publications appeared on the market, including textbooks for students and teachers in the field of entrepreneurship and a dictionary of "Basics of Entrepreneurship"; most of them were prepared by the staff of Pedagogical University of Cracow (PUC). Moreover, a draft of the core curriculum of "BE" in the extended version was prepared by the team of PUC and Cracow University of Economics.

Serious shortcomings in the new system of EE are the lack of possibility to implement it on the upper-secondary level in the extended content (with more than the standard number of hours) and taking the maturity exam in this subject, although the accepted model of secondary school in Poland allows students to select a subject from a wide choice (except compulsory courses as Polish language, mathematics and a foreign language). This optional extension of the content of entrepreneurship education would allow to take final upper secondary school exams in "BE" both at the basic and the extended level. This issue drew the attention of many authors (e.g. Bartoń, 2005; Rachwał, 2006, 2009, Tracz & Rachwał, 2008). However, the issue of matriculation exam in entrepreneurship still remains unresolved. It should be noted that their implementation is delayed due to the controversial nature of many technical and organisational difficulties associated with it, in which the opponents of the introduction of exams in this course include:

- a contradiction with the essence of entrepreneurship, which deals more with skills and attitudes rather than knowledge-based economic competencies,
- difficulties in defining the criteria for checking skills,
- a danger of departing from skills training to equipping students with economic knowledge and thus transforming the course into "principles of economics",
- incomparability of the range of requirements with other subjects (too narrow content),
- reducing the attractiveness of the subject for students and their involvement in the classroom, because teachers need to implement the material just for final exams.

It is, however, important to cite arguments of the proponents of the introduction of this exam (Bartoń, 2005), i.e.:

- expanding the catalogue of matriculation subject to choose from for students,
- the possibility of obtaining the certificate of maturity in an economic subject,
- greater opportunity to evaluate the candidates for business schools,
- greater prestige of entrepreneurship in the structure of the school teaching,
- greater involvement of students in the classroom (because of the awareness that the subject is covered by an external test),
- increasing the role of economic education for the society and the popularisation of entrepreneurial attitudes in society.

Therefore, the opinion of Bartoń (2005) must be accepted that – following the experiences of other countries, including many European countries – the subject of "BE" as the only economic subject in general education should be considered as a matriculation subject. In addition, the possibility of carrying out matriculation examination in this sub-

ject in Poland is shown by a successful project 'The Entrepreneurship Contest', which de facto has become such an "external examination", however, giving the possibility of entering economic studies only to the winners), as well as contests and competitions on entrepreneurship organised in many schools and educational institutions in Poland.

Furthermore, the development of information and computer technologies has a major impact on the implementation of the curriculum by teachers from virtually all subjects, especially in "BE" and "EP". As noted by Soczówka (2007), since the introduction of computers into schools in Poland in the 1980s, these devices and their software have become one of the important means of teaching used in such entrepreneurship education. Nowadays, computer programmes and multimedia have become an indispensable part of the learning process. If we want to teach effectively and the learning process to become easy and enjoyable, we should use the form that best reaches the students. Thanks to that, we could arouse their interest in teaching material. Multimedia teach through playing, which supports the teaching-learning process. They expand the cognitive area, facilitate consolidation of the material and help to check the degree of mastery of knowledge. And, most importantly, they are interactive, so the teacher activates the students and motivates them to work (Śrutowska, 2006).

This is confirmed by the opinions of the students themselves, cited on the basis of the research conducted under the auspices of the National Bank of Poland (Narodowy Bank Polski), by Smulczyńska (2006): according to students the increased use of teaching aids, the use of different, attractive and engaging ways of working, enhancing the practical aspect of teaching of the subject and strengthening contacts with institutions and enterprises would increase their satisfaction with participation in basic entrepreneurship lessons. These studies have also shown that teachers and school headmasters appreciate the role of activating methods, including the use of modern technology in educational work, but they often do not apply them because of limited time and technical capabilities. This was confirmed in studies by other authors, but good progress in this regard in Polish schools should be noted as a result of increasing universal access to computers and high-tech audio-visual and electronic teaching tools (Rachwał, Ratajski & Zajac, 2012).

Curriculum Analysis in Gymnasium (Lower Secondary School) and General Education in Post-Gymnasium (Upper-Secondary) Schools

In order to determine the content of entrepreneurship education in Poland a detailed analysis of the records of the NCC was carried out. The analysis was based on the criteria developed in the European research project Fifobi (Pilz, 2012) and includes four basic competencies related to the following: economy knowledge (E), business knowledge (B), social competences (SO) and self-competences associated with an entrepreneurial attitude (SE). Detailed criteria include the content shown in the table below (Table 1).

The analysis of Poland's new NCC of general education was based on the regulation of the Ministry of National Education announced on 12 December 2008 (Rozporządzenie... 2009) and implemented in the 2009/2010 school year. Apart from civic education, other relevant courses during which content connected with business education at lower-secondary level is realised include: mathematics and Polish (Kurek, Rachwał & Szubert, 2012).

Table 1. Coding for the curriculum analysis**A. Sub-competencies/criteria in the field of knowledge-based competencies in economics**

Criteria of knowledge-based competencies in economics	Code	Possible text in the curriculum
Basic principles of economics Further explanations: Understanding economics as the study of how society manages its scarce resources; understanding of basic economic phenomena	E1	[...] recognize that an economic order is necessary for the form of social life
The market forces of supply and demand Further explanations: Elasticity and its application (how much buyers and sellers respond to changes in market conditions); aggregate demand and aggregate supply (the aggregate-demand curve and the aggregate-supply curve)	E2	[...] understand the functionality of market and be able to reflect the roles of participants in market events
Trade and globalisation Further explanations: International trade (the effects of international trade on economic well-being); open-economy macroeconomics and macroeconomic theory of the open economy	E3	[...] know the world-economic interrelationship and be aware of the consequence of globalisation
Actors in the market Further explanations: Consumers, producers and the efficiency of markets; understanding how different actors in the market behave; understanding of the theory of consumer choice	E4	[...] show consumer-conscious behaviour in purchase situation and be able to justify the purchase-decision
The monetary system Further explanations: Saving, investment and the financial system; money growth and inflation; understanding of the role of money in economy	E5	[...] know the danger and methods of debt and excessive indebtedness, know provision of help for debt relief and reflect on one's own consumer behaviour
Government policies and its influences Further explanations: The design and costs of the tax system; externality (for instance, economy and ecology); public goods and common resources (goods without market prices); monetary and fiscal policy	E6	[...] know the tasks and aims of state environment policies
Market forms Further explanations: Firms in competitive market; monopoly; oligopoly	E7	[...] know different market forms and their influence on the pricing
Firms on the market Further explanations: Costs of production; The behaviour of competitive firms; factors of production (for instance, labour, land, and capital)	E8	[...] describe the tasks of companies in economic processes
Income Further explanations: Earnings and discrimination; income inequality and poverty	E9	[...] differentiate earned income and investment income
Indicators of economy Further explanations: GDP, CPI...	E10	
Labour market Further explanations: Unemployment; short-run trade-off between inflation and unemployment	E11	[...] recognize structure-conditioned unemployment problem

B. Sub-competencies/criteria in the field of knowledge-based competencies in business

Criteria of knowledge-based competencies in business	Code	<i>Possible text in the curriculum</i>
Business and its external environment Further explanations: Various types of business activity and organisation; financial institutions and their role in the financial structure; business external environment, e.g. economic systems, structure of industry, location of industry	B1	[...] recognize that an economic order is necessary for the form of social life
Corporate strategy and planning Further explanations: Methods used in forecasting and planning enterprise goals and department objectives; the nature of decisions and methods of statistical analysis in making decisions	B2	[...] understand the functionality of market and be able to reflect the roles of participants in market events
Organising Further explanations: Organisation structure, levels of organisation; importance of authority, responsibility, and delegation	B3	[...] know the world-economic interrelationship and be aware of the consequence of globalisation
Directing Further explanations: Leadership, relationship and communication between managers and employees	B4	[...] show consumer-conscious behaviour in purchase situation and be able to justify the purchase-decision
Controlling Further explanations: Principles of effective control, budgetary and non-budgetary, financial accounting conventions	B5	[...] know the danger and methods of debt and excessive indebtedness, know provision of help for debt relief and reflect on one's own consumer behaviour
Marketing and sales management Further explanations: Selling, transportation, storage, gathering market information, etc.	B6	[...] know the tasks and aims of state environment policies
Production and operation management Further explanations: Production function; the place of product design and development; the location of plant; the layout of equipment; the importance of planning and control	B7	[...] know different market forms and their influence on the pricing
Human resource management Further explanations: Recruitment selection; training and development; promotion and transfer; redundancy and retirement,	B8	[...] describe the tasks of companies in economic processes
Administrative management Further explanations: Planning and organising the office; office machinery and equipment; human aspects of computer usage	B9	[...] differentiate earned income and investment income
Business ethics Further explanation: ethical behaviour of a contractor, employer and employee, black economy, mechanism of corruption	B10 (PL)	[...] clarify the mechanism of corruption and explains/presents the effects of this phenomenon for the economy

C. Sub-competencies/criteria in the field of knowledge-based competencies in business

Criteria of social competencies	Code	Possible text in the curriculum
Communication ability Further explanations: A person has the ability to communicate, when he/she is able to express him/herself verbally and nonverbally and interpret other people's messages properly and know how to react based on them	SO1	[...] must strive to understand communicatively [...] can illustrate clearly their point of view with examples
Conflict ability Further explanations: Conflict ability is concerned with recognizing a clash of interests and the willingness to resolve them amicably	SO2	[...] have the possibility to set about conflicts fairly and peacefully
Ability to give and receive criticism Further explanations: Ability to give and receive criticism. Someone who is ready and able to deal with other people's mistakes constructively and fairly	SO3	[...] accept different ideas [...] be able to understand criticism of one's own behaviour not as a personal attack, but rather as criticism on the subject [...] know how to cope with conflicts constructively
Team ability Further explanations: Readiness and competence to cooperate with other members of a group in a goal and task-oriented way	SO4	[...] always work in a team
Empathy Further explanations: Understand the situation of other people and to deal with them politely, and with respect	SO5	[...] deal with others with respect

D. Sub-competencies/criteria in the field of self-competencies with emphasis on entrepreneurial thinking

Criteria of self-competencies with the emphasis on entrepreneurial thinking	Code	Possible text in the curriculum
Internal locus of control Further explanations: It refers to the extent to which individuals believe that they can largely control their actions and the consequences of their actions. Individuals with a high internal locus of control believe that events result primarily from their own behaviour and actions. (Decision-making ability; assertiveness; self-marketing; organising competence; visionary thinking)	SE1	[...] is able to make a decision, to set own priorities [...] organise the process of work;
Achievement motivation Further explanations: People who are strongly achievement-motivated set goals for themselves and look for affirmation of their accomplishments; (Plan, organise, readiness for intellectual achievement; orientation towards achievement; motivation for achievements; goal-orientation; lifelong learning; resistance against stress, ability to work under pressure)	SE2	[...] know that crisis is a part of life and know the possibilities to overcome them [...] is willing to spark his/her competencies as entrepreneur

Criteria of self-competencies with the emphasis on entrepreneurial thinking	Code	Possible text in the curriculum
Eagerness for independence Further explanations: It is understood as the quest for autonomy and self-fulfilment. People with outstanding eagerness for independence orientate their actions and decisions on their own plans and evaluation, seldom or not at all on authority. (Personal independence; leadership; creativity; imagination)	SE3	[...] develop learning goal and theme independently
Moderate tendency to take risks Further explanations: People with this characteristic are ready to take risks, without being careless. (Readiness for moderate risks; entrepreneurial thinking as employee; grasp for trends and market developments)	SE4	[...] learn to perceive and evaluate one's strengths and weaknesses
Entrepreneurial attitude Further explanation: Features of entrepreneurial person, taking entrepreneurial action	SE5 (PL)	[...] present features and abilities of an entrepreneurial person

Sources: own compilation based on (Berger et al. 2012; Pilz, Berger, Canning, ed., 2012) based on Appleby (1994), Bader (2007), Mankiw (2001).

Within other subjects a few hours can be devoted to the realisation of contents associated with developing entrepreneurship competencies. However, it is not officially defined how many hours should be devoted to the realisation of the content in business education within these subjects. The decision is left up to teachers.

The analysis of the NCC indicates that schools should equip students of gymnasium relatively well with economic knowledge. Taking into account four groups of competencies in the NCC, the economic knowledge content prevails (Figure 1).

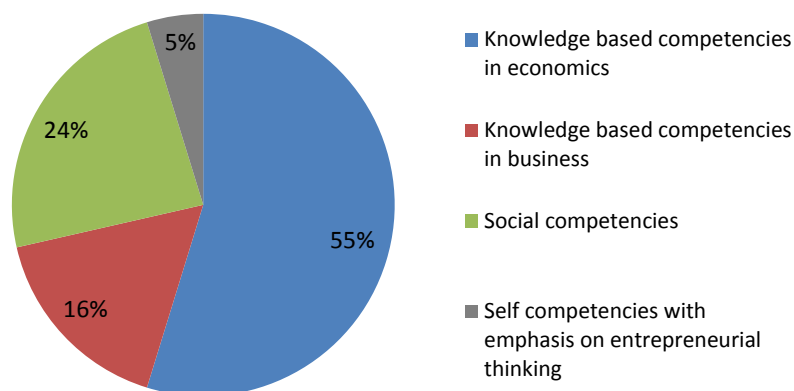


Figure 1. The percentage distribution of the main groups of records of the NCC in lower secondary school (gymnasium) concerning entrepreneurship competencies

Source: own compilation.

Nevertheless, significant deficiencies refer to market forms (E7). A detailed diagram shows that records in competencies associated with economic knowledge are mostly

represented (i.e. E11, E5, E6, E9, E10 and E1), as well as SO1 competencies (Figure 2). Business competencies in a narrow sense, i.e. directly associated with conducting business activity, are also introduced by the NCC. They are only limited to sections within civic education. A difference between the needs and the NCC has been detected in a few fields which are either barely taught or missing completely (Figure 3). This refers to the content associated with the structure of corporate strategy and planning (B2), which deals with directing people (including leadership), and relationships and communication between managers and employees (B4). These issues are limited to ethic values in business. Those connected with the principles of controlling and accounting (B5), production and operation management (B7) and administration (B9) are non-existent. Besides the limited content, the NCC includes an additional criterion of “black economy” and corruption (B10 PL), so omnipotent in modern economy.

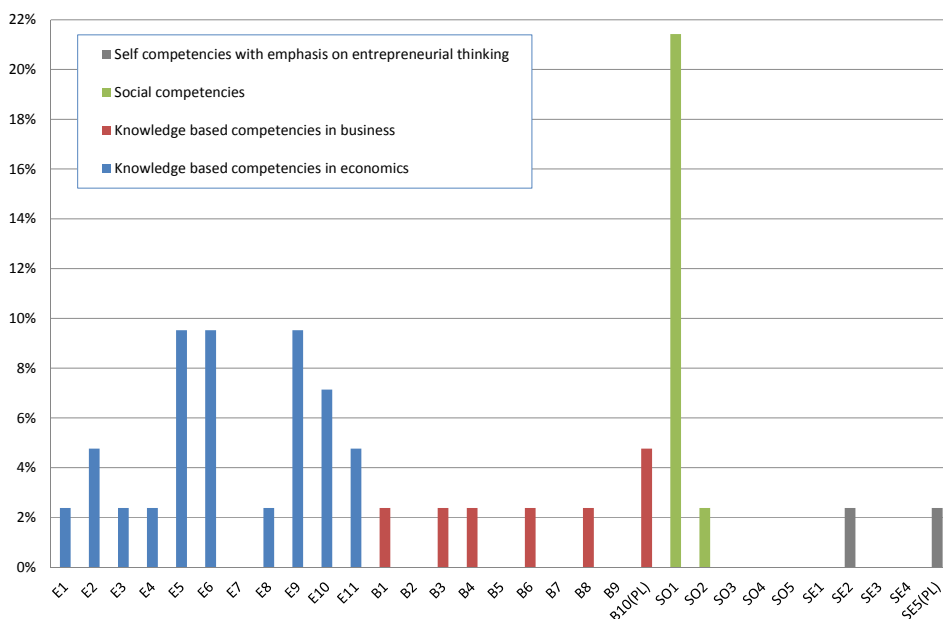


Figure 2. The percentage distribution of records of the NCC in lower secondary school (gymnasium) concerning entrepreneurship competencies

Source: own compilation.

According to the NCC, social competencies should be mainly developed during lessons of Polish and social education (called “family life education”). Surprisingly, no regulations regarding this competence are found in civic education. The curriculum stresses communication skills (SO1) and conflict management skills (SO2). In the latter case, the content is covered during the social education classes. There, conflict resolution concerns children-parents relations, but it may be assumed that students will acquire competencies of solving conflicts in their future place of employment. Furthermore, the curriculum lacks teaching content associated with the skills of giving and taking criticism (SO3) and empathy (SO5). Another missing skill is teamwork (SO4). Such a skill is crucial due to increasing specialisation, as well as the need for group solving of complicated

problems found in every work environment. The importance of teamwork skills has rich literature devoted to it, mainly concerning team management. However, according to S. Covey (1989, 2004), creative, synergetic cooperation in a team is one of the eight basic elements of effectiveness of every person, not only an effective manager-leader.

The analysis of the NCC concerning self-competencies associated with entrepreneurial thinking shows they almost do not occur in the teaching content. The curriculum for lower secondary school (gymnasium) does not anticipate developing the skill of self-control (SE1, SE3, SE4). The only area which might refer to the development of the entrepreneurial attitude is that of making plans for further education. However, the learning outcomes at the lower secondary level contain the following phrase "[student will be able to] present features and skills of an entrepreneurial person; participate in public undertakings which enable development", which was marked as a typical Polish element - SE5 PL.

The analysis of the distribution of content of the NCC in upper secondary schools indicates that competencies in the field of entrepreneurship are implemented directly on the two subjects dedicated to entrepreneurship education, that is "BE" obligatory for all students and "EP", optional, chosen by the students,. It should be noted, however, that this optional subject cannot be chosen by the students of basic vocational schools, and it is only for general and technical upper secondary schools. This is due to the fact that vocational students have various additional subjects or prepare to run a business in their vocational education. Generally, competencies in the field of economic knowledge prevail, constituting 57% of the total (Figure 3), the contents of all entries in this field are based on the obligatory subject "BE". The second group consists of knowledge-based competencies in business, but most of the entries appear in the optional subject "EP", and therefore cannot be implemented for all students. Self-competencies are treated quite marginally in the NCC.

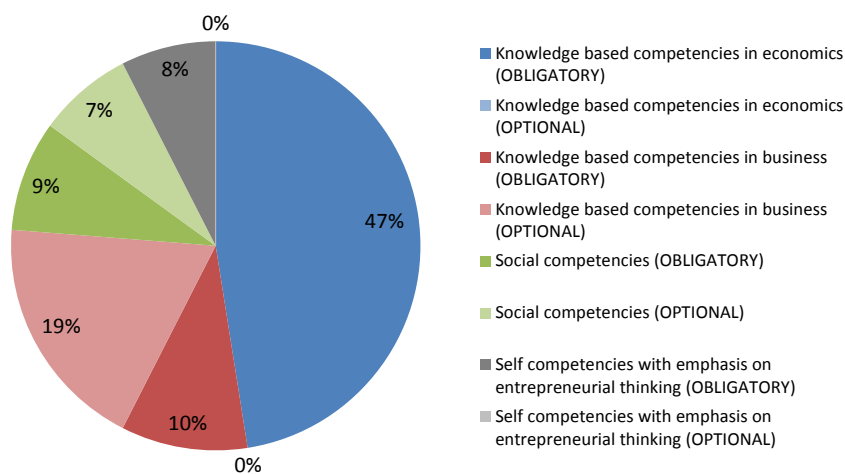


Figure 3. The percentage distribution of the main groups of records of the NCC Curriculum in upper secondary (post-gymnasium) school concerning entrepreneurship competencies

Source: own compilation.

The detailed analysis of the content of the NCC indicates that the best represented content in the records of the curriculum are the issues of the monetary system (E5), government policies and its influences (E6) and the labour market (E11) – Figure 4. A large share of the content is also represented by the business and its external environment (B1), but mainly in the optional subject “EP”. A relatively high proportion of social skills related to interpersonal communication, conflict resolution and team work (SO1, SO2, SO4) also refers to this subject. It should be noted that too much important content is carried out under an optional, not obligatory course, which should not be assessed as the best solution.

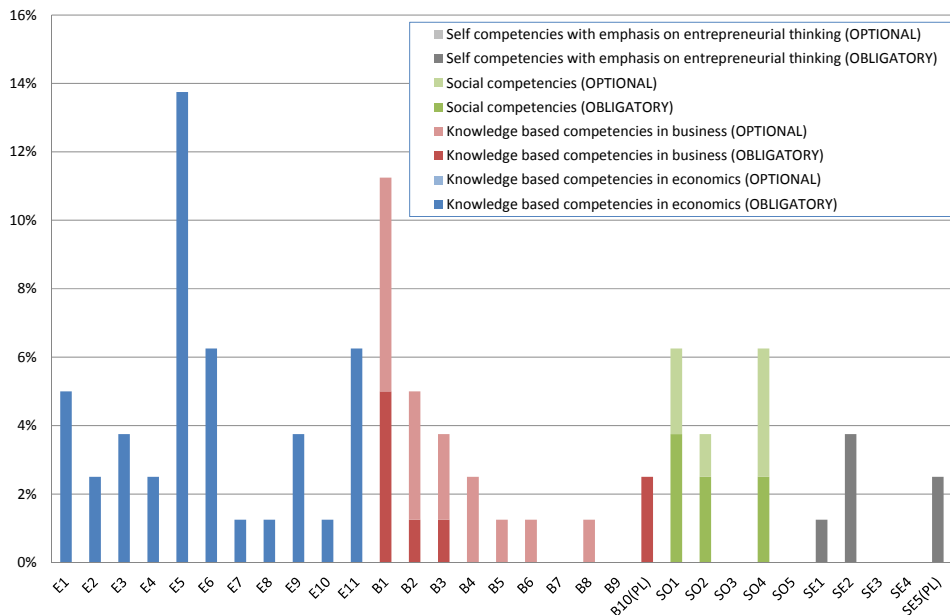


Figure 4. The percentage distribution of records of the NCC in a upper secondary (post-gymnasium) school concerning entrepreneurship competencies

Source: own compilation.

The conclusions from the analysis of the national core curriculum in gymnasium were confronted with the results of in-depth interviews with social partners (employers' organisations and trade unions) on entrepreneurship education in Polish schools. They emphasised a generally unfavourable opinion about the attitude of the Polish school to equipping with the knowledge economy along with the marginalisation of business knowledge, as well as social and personal skills, important in any profession and therefore so highly requested by employers in the labour market. A detailed analysis of the social partners' opinion is included in the earlier study (Kurek, Rachwał & Szubert 2012a). These opinions are generally consistent with the views of secondary school students in this field (Ziółkowska-Weiss, 2014).

The findings of the previous comparative research on curriculum in lower-secondary schools of Poland, Scotland and two regions of Germany (Berger et al. 2012) indicated that entrepreneurial competencies were quite different for each of the coun-

tries/regions, reflecting a range of diverse cultural and socio-economic factors. In the case of North Lanarkshire in Scotland, the emphasis within curriculum was focused upon employability and a transferable skills set within occupational structures. In the two German regions, there was much more emphasis on the wider economic and market environment and collective competencies. While, in the Polish curriculum, the priority subjects within the curriculum were related to wider market economy, including aspects of the labour market and industrial relations. Comparing to Scotland and Germany, very few self or collective social competencies appear within the curriculum in Poland. In fact, a surprising outcome was the apparent absence of business studies within the lower-secondary school curriculum in all three countries (Berger et al. 2012). Furthermore, Canning, Berger and Pilz (2012) show that the knowledge based competencies in economics also dominate in curricula in Austria, Latvia and especially in Hungary, which also transforms its economy. It should be noted, however, that the prevalence of content related to economic knowledge is much greater in Poland than in those other countries.

CONCLUSIONS

The analysis of content distribution of the NCC for secondary schools indicates that competencies in the field of economic knowledge prevail, the contents of all entries in this field are based on the obligatory subjects “civics” (lower-secondary schools) and “BE” (upper-secondary schools). Social and self-competencies are treated quite marginally in the NCC. Shortcomings in the business competencies, carried out mainly on the compulsory subject “EP”, are also visible.

The conducted research allowed to draw a number of conclusions and recommendations or challenges for politicians and educators in entrepreneurship education in Poland. In the light of the analysis, the need for further changes in the education system in Poland can be indicated, so that it supports the formation of more entrepreneurial attitudes. This is reflected in the further reform of the curricula. These should include in particular:

- the need to clarify the records in the NCC, since in many cases the entries are too vague, which means that the teacher cannot be exactly sure which effects are to be achieved,
- the need to modification of the records in the NCC in terms of entrepreneurship so that a greater emphasis was placed on social and personal competencies,
- in the case of upper secondary schools, the content of business knowledge in the obligatory part of education should be strengthened, because students who do not choose an optional subject “EP” will be poorly equipped to operate their own business and therefore it is worth considering whether the subject should be obligatory,
- introducing the possibility to carry out the subject in the extended version and enable to take matriculation exams in entrepreneurship.

The presented analysis can contribute to a better understanding of the level and structure of entrepreneurship education in Poland. An important added value of the analyses is their application value. The conclusions of the research may serve as guidelines to educational policy, not only in Poland but also in other countries transforming their economies, and to international comparative studies. Encouraging an entrepre-

neurial mind-set and making young people financially literate by engaging them in learning entrepreneurship within the motivating context will help them to enter the workforce or become entrepreneurs. Therefore, raising the level of EE should be reflected in the processes of economic development, especially in the form of small and medium enterprises. It is increasingly important in times of economic crisis as creativity applied through entrepreneurship education can lead to improvements in the transition process from leaving school to entering the labour market.

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