SELF-ASSESSMENT OF CROATIAN ELEMENTARY SCHOOL PUPILS ON THE ENTREPRENEURIAL INITIATIVE

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Defining entrepreneurship as an educational value, the educational systems and society demonstrate commitment to recognize a socio-cultural value – the entrepreneurship, and accordingly, to realize entrepreneurial competencies among pupils. The request to encourage the early development of initiative and entrepreneurial competencies is articulated at structural and procedural levels of curricular approaches and changes in educational systems. This study examines self-assessment of entrepreneurial initiative among elementary school pupils in Croatia in order to detect pupils' entrepreneurial characteristics and preferences. Since self-assessment and pupils' attitudes indicate a potentially entrepreneurial activity, the aim of the research is to identify the components of entrepreneurial competencies that need to be optimized within the formal education system. Therefore, the research was conducted at the national level on a sample of 1,962 elementary school pupils. Research results show that pupils positively evaluated entrepreneurial initiative, seeing it as an implicit characteristic of their own activities and involvement, and not as an explicit and anticipated one. Therefore, the multidimensionality of entrepreneurial initiative self-assessment by primary school pupils was not confirmed. Nevertheless, the positive preferences of pupils were expressed, although insufficiently brought to consciousness. The survey confirmed gender and age differences that were reflected in the differences in the evaluation and entrepreneurial experience. The results indicate the need to affirm teaching entrepreneurship in their daily activities, a clearer articulation of its educational components and fostering synergy between education levels and among teaching subjects.

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1. INTRODUCTION

The development of entrepreneurial initiative and entrepreneurial competencies of pupils represent an objective and expected educational outcome of modern education system of the European Union (Recommendation of the European Parliament and of the Council of 18 December 2006 on key competences for lifelong learning, 2006). Whilst most Western European societies have been recognizing entrepreneurship for many decades as a socio-cultural and educational dimension, the situation in our regional and national context is quite different. Socio-cultural affirmation of entrepreneurship is reflected in different dynamics and is directly determined by the socio-economic transition and modernization of Croatian society. The period since the establishment of principles and practices of the free market that marked the last decade of the 20th century, up to the building of the economy and the knowledge-based society, represents not only the time framework but also the contextual framework within which entrepreneurship has had different meanings to the level of value orientation, and the level of articulation of the social and political attitudes and public opinion. Today, entrepreneurship represents one of the cornerstones of social development which is best described by the concept of an entrepreneurial culture and an entrepreneurial society.

The results of numerous analyses have shown that the achievement of competitiveness and growth is directly related to the development of human capital and entrepreneurial activity in the broadest sense of the term (Keeley, 2007). When it comes to relation between entrepreneurship and education in our educational system, such a tradition exists only at the level of vocational and higher education. It is also generally accepted that entrepreneurship belongs exclusively to the field of economic theory and practice. This indicates that the scientific discourse of entrepreneurship is disciplinary focused. However, for the purpose of a systematic and comprehensive understanding of the entrepreneurial initiative, and in particular its application in terms of reinforcing it as a social value and developing entrepreneurial competence among children and youth, an interdisciplinary approach becomes necessary. A group of Croatian authors concluded that ˝the education to acquire entrepreneurial competencies in Croatia mainly belongs to the field of economics, economic science and economic institutes and institutions of higher education at which economy is studied˝ (Domović et al., 2013:145). Pre-tertiary levels, particularly the level of the general compulsory education, were not considered an appropriate level for educating and training on the entrepreneurial values, knowledge and skills acquisition as well as the development of skills and

attitudes towards entrepreneurship. The exception to this rule is the tradition of education in Croatian schools of fostering educational value of creativity.

The work of renowned American economist T. W. Schultz represents the turning point in the view of entrepreneurship. He defines entrepreneurship (1975; 1980) as a process of an individual adjusting to society. He argues that entrepreneurial ability is not an exclusive privilege of a business person, but is seen in a large number of people throughout their lives when confronted with a variety of changes in life circumstances that influences their entrepreneurial behavior. Kurtako (2005) argues that entrepreneurship can only be understood as a process of vision, change and creation, all requiring an investment of effort and dedication in creating and implementing new ideas and solutions.

In societies that associate entrepreneurship exclusively with industry, where it is not placed high in the value system of the society, it acquires connotations that anesthetize the entrepreneurial spirit of a nation. Entrepreneurship is associated with innovation and creativity by creating of the new in all areas of human activity. Starting a business, making something new, and adding value to something, provoking a_ proactive response in one's own environment and the process of creative destruction are only a few attributes associated with the idea of entrepreneurship. There are, however, elements of sub-competencies that are believed to be able to develop through education.

If expectations focus on the results, without being processed through the areas of personality during the education, the correlation of economics and economic disciplines as well as education and economic development is weak.

An entrepreneurial culture is still created more often on the level of vocational education (Towards Entrepreneurial Culture for the Twenty-first Century, 2006) so the expected learning outcomes have been more elaborated in the VET curricula. The last change in Croatian educational system aimed at changing the hierarchy of values and goals, opening space to entrepreneurship, education about and for entrepreneurship, the education through entrepreneurship and learning about the entrepreneurship in a contemporary educational change. Entrepreneurial competence is one of the eight most relevant competences that have become a requirement to be fulfilled in pre-tertiary education as opted by Croatian policy makers (National Curriculum Framework for Preschool Education, General Compulsory and Secondary Education, 2011).

2. DEVELOPMENT OF ENTREPRENEURIAL COMPETENCE

Based on changes in the definition, and the evaluation of positive effects for the development of a society, entrepreneurship has been the subject of interest for experts in the field of educational sciences since the end of the 1990s. Entrepreneurial competencies in synergy with other competencies allow quality preparation of young people for lifelong learning (European Commission, 2007). Entrepreneurship -level core competency means getting qualification for implementing ideas and thoughts into action, thus becoming the everyday professional social functioning of individuals. According to the expert analysis the offered framework of core competencies is quite heterogeneous (Halász and Michel, 2011), leaving the freedom of interpretation, as well as ways of implementing it in national and regional frameworks of European countries. Deakin Crick (2008) interprets core competencies and possible polarization between economic neoliberalism and global views on social justice and concludes that a business person requires the same set of meta-competencies, as a successful parent or a responsible citizen, although they may differ in what they do and the knowledge and skills they possess (Deakin Crick, 2008: 317).

The development of the competence approach and its implementation in curriculum programming requires change of content from secondary (for example, an economic and financial education and training) into priority curriculum elements in traditional systems of education. The range of expected student achievements and learning outcomes with the common denominator for developing entrepreneurial competencies and entrepreneurship as features of student's personality traits becomes primary. Entrepreneurship with the meaning of innovation and creativity presupposes a powerful emancipatory potential in the process of humanization, and hence the education, which is complementary to the development of society and mankind.

Scientific researches and numerous empirical studies have shown that education is positively correlated with economic growth and development (Pastuović, 2012). Hence the other key bounding entrepreneurship and reform changes. All Western European countries have confirmed the importance of entrepreneurial education and the acquisition of entrepreneurial competencies, anticipating education as a fundamental determinant of entrepreneurial activities in their countries. Therefore, entrepreneurial competencies with all its characteristics, such as the ability to produce ideas, innovation and creativity perseverance at work, self-reliance, risk-taking, decision-making and others, become an integral part of modern education. Namely, according to

OECD/CERI (1989:36), *˝an entrepreneurial individual has a positive, flexible and adaptive disposition to change, seeing it as normal and as an opportunity rather than a problem. To see change in this way, an entrepreneurial individual has a security born of self-confidence, and is at ease when dealing with insecurity, risks and the unknown. An entrepreneurial individual has the capacity to initiate creative ideas and develop them into action in a determined manner. An entrepreneurial individual is able, even anxious to take responsibility, is an effective communicator, negotiator, influencer, planner and organizer".*

3. EDUCATION FOR THE ACQUISITION OF ENTREPRENEURIAL COMPETENCES AND ENTREPRENEURSHIP

One of the pioneers of the entrepreneurial theory and education for enterprise, a British scientist A. Gibb (1993, 2002) leads an entire group of authors who support the thesis that entrepreneurial skills are not strongly determined by personality traits, but a quality that can be learned and developed. Accordingly, Gibb (1984) concludes that effective acquisition of entrepreneurial qualities is primarily the issue of teaching methods and strategies and acquiring knowledge, and not merely the learning content.

In reality, a person is expected to cope with changed and variable conditions of life and work. Entrepreneurship indicates creating opportunities in an unsafe living environment - locally, regionally, nationally, internationally, and globally. After long discussions on the issue whether a person is born an entrepreneur or becomes one, studies have shown that the development in the early years can affect the development of entrepreneurial skills, and that entrepreneurship can be learned and developed. Dealing with complex requirements of changes implies young people are prepared- cognitively, emotionally and willingly - to recognize and realize their full potential in adulthood. Accordingly, competencies are an interwoven set of cognitive and practical skills and abilities, knowledge, motivational forces, value determinations, attitudes, emotions, and other components that mobilize a person to an effective activity (Jokić, 2007).

The education systems of the European Union countries have, therefore, introduced entrepreneurial competence as a basic competence. *Basic* means that the entrepreneurial competencies are as relevant as the communication in the mother tongue and a foreign language, mathematical literacy and competence in science and technology, digital competence, ability to learn (learning to learn),

social competence and cultural awareness. ˝The main objective of entrepreneurial competencies development of pupils is the development of personality traits and knowledge, skills, abilities and attitudes necessary for the operation of the individual as a successful entrepreneurial person˝ (National Curriculum Framework for Preschool, General Compulsory and Secondary Education, 2011:45). In this context, the structural and procedural entrepreneurship has the status of interdisciplinary subject, which means that it can be developed through all subjects at all levels of pre-tertiary education.

All educators at schools and beyond are responsible for the effective realization of entrepreneurial learning and the development of entrepreneurial competences among children and youth. Although entrepreneurial learning is framed by curriculum, schools are allowed to be unique in their approach in encouraging the development of specific competencies. An example of learning outcomes implementation related to entrepreneurial competence development at the ISCED 2 level of national educational systems was identified in the regional project for Entrepreneurial Learning of Southeast Europe[1].

Bringing together the national and international experts and teachers as direct holders led to developing learning outcomes for the entrepreneurship, which were then applied in the daily teaching activities at 31 schools from eight countries. According to the evaluation of the pilot project (Batarelo Kokić et al., 2013) positive attitudes were expressed by pupils and changes in the school curriculum of teaching and learning, the teaching materials development, etc. were recorded, which requires a new culture of school - an innovative, creative and entrepreneurial one to be created.

4. THE OBJECTIVE, PROBLEM AND RESEARCH METHODOLOGY

Assessing the quality changes and reforms in the education system should be based on clear empirical indicators in their own context; research is focused on the theoretical and practical implications concerning initiated curriculum changes and modernization of education in Croatia. The objective of this paper is to examine how elementary school pupils evaluate their own initiative and how they understand it in the context of everyday school and teaching activities. The research is based on following hypotheses:

[1] Project holder is the Regional Centre for Entrepreneurial Learning SEE (South East European Centre for Entrepreneurial Learning - SEECEL), a project funded by the European Union. The presented research results are part of a more comprehensive research, conducted in the framework of scientific research project ˝ Education for entrepreneurship ˝.

Hypothesis H1. Given that entrepreneurial learning is not an explicit goal of the educational activities of teachers; pupils will evaluate their entrepreneurship differently as part of school work and teaching process.

Hypothesis H2. Given that the entrepreneurship is theoretically a multidimensional construct, we expect the level of pupils'' self-estimation of entrepreneurship to confirm its multidimensionality, or the grouping of attitudes about substantially different personality traits associated with entrepreneurship.

Hypothesis H3. Given that there are differences in the activity and affinity for educational and extracurricular activities among girls and boys, we expect the existence of gender differences in the self-estimation of the entrepreneurship.

Hypothesis H4. The curriculum shows that higher grades compared to lower grades bring increasingly complex educational requirements that directly lead to increased school workload for pupils. Therefore, we expect that there will be differences in the self-estimation of entrepreneurial skills according to their age, or their grade.

4.1. The sample and research procedure

The survey was conducted in 2011 on a sample of 1,962 pupils from 23 primary schools in the Republic of Croatia. The process of selecting the research sample is based on the principles of stratified and random selection. The three stratums were used in sample formation on the basis of a stratified selection: a) regional origin, b) schools, and c) class. Selection within the second and third stratum relies on a combination of stratified-random sampling. The research was conducted on a nationally representative sample of schools within 6 regions (Zagreb and surroundings, Northern Croatia, Slavonia, Lika and Banovina, Istria and Primorje and Dalmatia).

Specifically, a number of schools were selected within each region on the principle of representation of the number of primary school pupils each region has in the total number of primary school pupils in the Republic of Croatia. When selecting schools, schools in large urban regional centers and those in the less urban areas of each region were equally represented. The testing was

conducted in two randomly selected 6th and 8th grades in each of the selected schools.

Table 1. Number of respondents by sex and age

	6th grade		8th grade		Total	
	N	**%**	**N**	**%**	**N**	**%**
Boys	488	24.87	471	24.87	959	48.88
Girls	478	24.36	525	26.76	1003	51.12
Total	**966**	49.23	**996**	50.77	**1962**	100

Table 1 shows the sample structure based on pupils' sex and age. According to the Croatian Bureau of Statistics (2011), at the beginning of the school year 2010/2011 in the Republic of Croatia there were 349,423 pupils in primary schools. A total of 46,087 of these pupils were enrolled in the 6th grade, and 49,437 pupils in the 8th grade. The sample used in this research consisted of 966 pupils in the 6th grade (2. 01% of the 6th grade population) and 996 pupils in the 8th grade (2.01% of the 8th grade population). The target group of respondents were pupils of the 6th (N = 966, 49.24%) and 8th grade (N = 996, 50.76 %).

The “grade” category is also an age category of pupils, which distinguishes between younger (the 6th grade) and older pupils (the 8th grade). In the total number of pupils from the research sample (N = 1,962), there were 959 boys (48.88%) and 1,003 girls (51.12%). The structure of the sample by gender and age of the pupils revealed there was approximately the same number of pupils in each of the possible categories covered.

4.2. Research instrument

A short questionnaire survey was used as main instrument in collecting empirical data on pupils’ social and demographic features. The Attitudes to Enterprise Test (Athadye, 2009, 2012) was used for the self-assessment of entrepreneurial initiative. It determines personal perception of entrepreneurship within the everyday curriculum and pupils’ school activities. Self-assessment indicates school context in which pupils realize their entrepreneurial potential and abilities and a place where they see opportunity to practice entrepreneurship.

The original questionnaire consists of 30 statements with a 7-point Likert-type scale assessing the level of agreement with a particular statement. However, it was estimated that the 5-speed range estimates sufficient intensity range of (dis)agreements for the proposed claim for elementary school pupils. So, for the purpose of this study the 7- point scale assessment was replaced with a 5-point one (consisting of the following levels of agreement: 1 - strongly disagree, 2 - mostly do not agree, 3 - neither agree nor disagree, 4 - mostly agree 5 - strongly agree).

Pupils who had previously obtained the parent's consent to participate in the research took part in the study voluntarily. The questionnaire was based on the paper-pencil principle, and the questionnaire was distributed in each classroom during the regular class and at times that were made available to researchers. The pupils had 20 minutes to complete the questionnaire.

5. RESULTS AND DISCUSSION

5.1. Dimensionality of self-assessment on entrepreneurship of pupils

Determining the persistence of multidimensional self-assessment of entrepreneurial skills is one of the tasks in this study. According to the Entrepreneurship theory (Gibb, 1993, 2002) the entrepreneurial initiative can be described substantially in manifold concepts, such as creativity, belief in the control of our own destiny, dedication, imagination and personal autonomy, initiative, the ability to lead others, the ability to take reasonable risks, the need for achievement and strong persuasion skills. According to this theory and its empirical verification in the school environment (Athayde, 2009, 2012) entrepreneurship is conceptually an attitude with five independent dimensions: creativity, achievement of project activities, the ability to control our own destiny, belief in the ability to lead others, and using intuition to solve problems. Thus, it was expected that the pupils' self-assessment would reveal several separate components.

The factor analysis was performed for all survey items, with Varimax normalized rotation and Kaiser's method. The results of the factor analysis (Table 2), and the application of statistical and theoretical substantive principles of the particle show that multifactorial structure of entrepreneurial skills, according to pupils' self-assessment, is not confirmed. From a total of 30 items, in the final process, 20 showed satisfactory factor saturation. A total of 10 items were omitted, due to a relatively low level of statistical significance.

Table 2. Self-assessment factor structure

Items	Factor loadings	h^2	Item correlation with total score
1. I believe a good imagination helps you do well at school.	-0.436	0.190	0.382
2. I work hard to make my projects successful.	-0.576	0.331	0.508
3. I think my future career success is largely up to me.	-0.442	0.196	0.384
5. I like lessons that really stretch my imagination.	-0.436	0.190	0.400
7. I'm good at motivating my classmates.	-0.501	0.251	0.447
8. I have a lot of faith in my own ability to succeed in my future career.	-0.429	0.184	0.374
9. It is important to finish off a project as well as you can.	-0.562	0.316	0.491
10. I am good at getting people to work well together.	-0.535	0.286	0.480
11. I trust my own instinct when solving problems in class.	-0.295	0.087	0.273
12. I think I show a lot of imagination in my schoolwork.	-0.520	0.271	0.486
13. It is important to plan my future career.	-0.441	0.194	0.398
15. I believe I can persuade my classmates to agree on a plan.	-0.418	0.175	0.394
16. Making mistakes is a good way of finding out how to solve a problem.	-0.335	0.112	0.307
19. I take responsibility for organising people in group work.	-0.342	0.117	0.317
21. I'll keep trying out different solutions to a problem rather than give up.	-0.500	0.250	0.462
22. Working hard on projects is well worth the effort.	-0.510	0.260	0.467
27. It feels good when a school project works out well.	-0.505	0.255	0.461

28. I have as much chance as anyone else of getting a good job in the future.	-0.459	0.211	0.415
29. I enjoy lessons where the teacher tries out different ways of teaching.	-0.431	0.186	0.395
30. Instinct helps me work out solutions to problems we are set.	-0.421	0.177	0.395
Eigenvalue	**4.239**	*h^2 - communalities*	
Proportion of explained variance	**0.212**		

Note: M = 77.60, SD = 9.94
Cronbach alpha: .84; Average correaltion between items: .21

Factorization procedure indicates the one-dimensionality of self-assessment, which can be explained as a general attitude that pupils have about themselves and their entrepreneurial initiative. The reliability of the scale was determined by internal consistency, and its coefficient of 0.84 indicates a satisfactory level of reliability. The extracted factor explains 21% of the total variance in the results.

Although the initial assumption on substantially different aspects of attitudes towards entrepreneurship has not been confirmed, we can see that the pupils' self-assessment of their entrepreneurial skills is based on a general attitude and their own experience. Although it is impossible to detect more latent dimensions of their entrepreneurship, with the aim of bringing together a broader set of proposed variables it is not a problem from the perspective of statistical and substantive criteria, but it is at the same time relevant and indicative for explaining possible factors that lead to such a structure of pupils' self-assessment of their entrepreneurship and their own experience. Self-assessment of a higher level of entrepreneurship achievement, which did not confirm development of more complex entrepreneurial forms, depends primarily on the social and cultural characteristics of the environment.

Namely, Croatian schools are still considered to be traditional, i.e. focusing on content and subject-oriented teaching, which cannot meet the demands of entrepreneurial learning. The focus on content is based on memorizing and reproducing knowledge in certain subjects, thus hindering the development of entrepreneurial characteristics. An education focused on memorizing general and professional knowledge items required to complete formal education and acquire qualifications, prepares a person for a foreseen and predictable future with secure employment. The pedagogical and educational terminology in

school practice uses very few terms designating entrepreneurship and entrepreneurial education.

Pupils recognize their own initiative through characteristics, such as perseverance, diligence, activity, rather than through enterprise. On the other hand, the operationalization of entrepreneurship at school is based on examining its diverse aspects through project work, group work, emphasizing a positive impact of the pupils-to-pupils relationship and approaches to resolving problem situations. It is possible that the pupils are not aware of themselves and others in such teaching situations. There are two possible factors that contribute to this image that pupils have of themselves. Firstly, due to the characteristics of a traditional school, pupils focus their success on getting excellent grades in teaching subjects, and not on the educational dimension of developing and strengthening their personality and acquiring competencies that will be useful to them in life. Secondly, their entrepreneurial experience, gained by identifying opportunities for their own actions through project work and in problem-solving situations, is only one aspect in a wide range of possible teaching methods and strategies. Jokić (2007) concludes that although our pupils prefer problem situations, they can access them in a safe, predictable manner and they are mainly focused on meeting teacher's expectations. The usual and expected approach represents a ″safe″ way to success, which is getting good grades. Creativity and innovation in solving problems exposes pupils to a risk they are not willing to take yet as they are risking the possibility of (not) satisfying their teacher's expectations and getting a good grade as an indicator of success.

Foreign studies have shown that effective acquiring entrepreneurial skills among pupils can be exercised only by those methods that require a higher level of pupils activity and involvement , an interaction between them and a new role of the teacher in teaching (Gorman and Hanlon, 199; Hytte and Kuopusjärvi, 2004; Ruskovvara and Pihkala, 2011). The traditional orientation of Croatian schools is reflected in the fact classes are still dominant and teacher-directed. The national study of teachers' attitudes towards entrepreneurship and incentives at school (Baranović et al., 2007), concluded that more than half of the teachers sometimes participate in organizing and implementing activities that stimulate entrepreneurial skills among pupils.

Sometimes as a measure of the frequency confirms how often the methods of active learning and the acquisition of knowledge, skills, developing skills and attitudes related to entrepreneurship are used. According to this study, an important fact is that teachers prefer those methods which encourage pupils' independence, and then the strategies for and methods of developing teamwork

(Baranović et al., 2007). These data are indicative of the explanation how pupils understand their entrepreneurship at school. Therefore, strengthening the pupils' positive attitude, not only to entrepreneurship, but also to other characteristics of competence, to a large extent depends on the changes in curriculum paradigms and placing pupils into the center of the educational process.

5.2. How pupils perceive their entrepreneurial initiative?

The operationalization of personal entrepreneurial potential is based, on one hand, on the tripartite theory of attitudes and assessing five central components of the entrepreneurial initiative within the school and teaching situations. Thus, the items in equal numbers refer to cognitive, affective and volitional (active) attitude towards the statement. On the other hand, they are at the same time covering the attitude towards one's own creativity, the possibilities of personal control over future interests and completing a project work, relying on oneself to solve problem situation, and pupils' ability to influence and control others . Although these aspects are not separate at the level of individual components, we consider the intensity of every allegation worth a closer analysis. Table 3 shows descriptive indicators and frequency of responses to items of attitude scale for entrepreneurial initiative. Those claims that had a positive indicator on the previous level of analysis were selected in line with the results factor analysis.

Table 3. Descriptive indicators and frequency of responses of pupils to Attitudes to Enterprise Test

Items	M	SD	Amount of repondents choosing the answer on the assessment scale (in%)					
			1	2	3	4	5	*
1. I believe a good imagination helps you do well at school.	4.25	0.831	2.29	2.09	12.13	34.96	48.22	**0.31**
2. I work hard to make my projects successful.	4.11	0.815	1.83	3.21	15.29	41.03	37.97	**0.66**
3. I think my future career success is largely up to me.	4.28	0.799	1.89	2.14	12.23	32.98	49.85	**0.92**
5. I like lessons that really stretch my imagination.	3.89	1.389	5.5	5.96	20.08	30.43	37.41	**0.61**
7. I'm good at motivating my classmates.	3.49	1.270	8.05	9.12	26.96	35.22	19.22	**1.43**

8. I have a lot of faith in my own ability to succeed in my future career.	4.16	0.973	2.19	3.92	15.65	31.19	45.92	**1.12**
9. It is important to finish off a project as well as you can.	4.34	0.863	1.63	2.29	9.48	33.18	52.45	**0.97**
10. I am good at getting people to work well together.	3.74	1.042	3.24	6.17	26.35	38.22	24.57	**0.76**
11. I trust my own instinct when solving problems in class.	3.55	1.155	5.15	8.72	33.44	30.53	21.25	**0.92**
12. I think I show a lot of imagination in my schoolwork.	3.52	1.013	5.15	6.63	35.22	33.74	16.97	**2.29**
13. It is important to plan my future career.	4.18	0.847	1.68	3.31	14.88	33.79	44.7	**1.63**
15. I believe I can persuade my classmates to agree on a plan.	3.50	1.010	4.33	9.02	34.81	33.79	16.67	**1.38**
16. Making mistakes is a good way of finding out how to solve a problem.	3.81	1.017	3.82	5.3	23.8	38.33	27.37	**1.38**
19. I take responsibility for organising people in group work.	3.09	1.105	9.38	17.18	37.82	21.92	11.57	**2.14**
21. I'll keep trying out different solutions to a problem rather than give up.	3.92	1.061	4.08	5.68	19.32	34.71	34.51	**1.73**
22. Working hard on projects is well worth the effort.	3.87	1.099	4.49	5.15	19.98	37.26	30.63	**2.5**
27. It feels good when a school project works out well.	4.23	0.920	2.14	2.8	12.28	34.3	46.99	**1.48**
28. I have as much chance as anyone else of getting a good job in the future.	4.19	0.987	2.75	3.29	12.79	32.01	47.66	**0.87**
29. I enjoy lessons where the teacher tries out different ways of teaching.	3.77	1.136	6.22	6.11	22.83	32.98	30.99	**0.87**
30. Instinct helps me work out solutions to problems we are set.	3.72	1.017	3.62	5.96	30.02	34.1	24.82	**1.48**

*Note: The column labeled * represents the percentage of respondents who did not respond to appointing statement.*

The highest average scores were recorded in the group of claims describing attitude towards future careers and profession. A total of 83% of pupils believe that future business success depends on them. Likewise, 77% of pupils find that success in their future careers depends on their abilities. In assessing their own chances of getting a job in the future, 80% assessed having the same opportunities as everyone else. A high degree of agreement was expressed regarding the importance of planning their future careers.

These results led us to the conclusion that, when it came to their future jobs, pupils based their attitudes on more intrinsic factors of success, personal motives and interests, rather than on extrinsic ones. With respect to their age, pupils were still in the stage of idealizing and expressing career desires. The primary system had not sufficiently developed vocational information and guidance, including knowledge of the professions. It should be borne in mind that the professional information had an instrumental significance in the final grades for pupils trying to enroll into a high school.

Furthermore, pupils liked the variety of methods used by their teachers (64%), and teaching that stimulated their imagination (68%). From their estimates, it can be seen that resourcefulness was important in doing well academically. On the active level, a slightly lower proportion of them considered themselves as being ingenious. According to these results we can see that pupils' views reflect the existence of deeply rooted traditional patterns and expectations of the school to which it is better to be guided, than ingeniously offer new solutions and challenges.

Given the fact that problem facing and solving situations are also an opportunity for proactive and entrepreneurial thinking and action, a part of the related claims related to verifying how much pupils relied on their own intuition. In all, 70% of the pupils tried out various solutions to the problem which reflects a relatively high degree of commitment and effort. Errors were considered to be an integral part of problem solving by 65% of them. It is interesting that when solving problems 52% of the pupils relied on their own judgment, and 59% of them claimed to follow their feelings.

Attitudes towards assignments and project work reflect a high degree of commitment of pupils who expressed satisfaction for the effort if the project activity ended well.

In parallel with the previous enterprise self-assessments, the pupils' affirmative relationship was maintained in the image they had of themselves in

team work, but the average values are slightly lower. In all, 63% of pupils assessed their ability to encourage other pupils to work while the other 26% could not assess their ability to encourage others. On the other hand, half of the pupils think that they were ready and willing to encourage other pupils to do the work and they could influence other pupils to agree to a plan. 33% of pupils believe that they accepted responsibility for the work in group /team work, and 38% were unable to assess their responsibility for the work.

As much as the value of teamwork is emphasized in the new teaching curricula, pupils still believe that learning and knowledge acquisition depend on them and their own efforts. Even if teachers use teamwork as an effective method in the educational activity, the pupils sees their success in the final report that is not received in the team, but as part of individual work.

It is important to emphasize that pupils assessed their own initiative on cognitive and emotional levels very positively. However, there were cautious in assessing situations related to the activity and effect of willingness. This indicator should not be ignored as it is indicative of the educational practice. It again refers to a standard practice not only in traditional but also in old schools in which cognitive development outweighs the student's personality. Moreover, the valuation is often considered synonymous with assessment and school evaluation is focused on the cognitive side of pupil's personality, so this dimension is the focus of learning and teaching.

In our educational system, neither pupils, nor teachers are trained in self-assessment. Self-assessment is a logical counterbalance to evaluation. Valuing yourself and others is a relevant entrepreneurial component, and it assumes the articulation of thoughts, judgment and ability to argue. Self-assessment can be developed by applying student portfolio, which is regularly reviewed by lecturer, teacher and pupil. Pupils express their opinions, make judgments about someone or something, are trained to detect the value of others and themselves, and to perceive the best qualities of each person. In this sense, they are able to clearly articulate the active dimension of their personality or their working effect. This research evidently shows that pupils refrain from assessing their work and success.

5.3. Differences in self-assessment of entrepreneurial initiative

In order to understand the entrepreneurial initiative, possible differences in self-assessment regarding the individual characteristics of pupils need to be researched. In order to determine the possibility of differences in the self-

assessment of entrepreneurial initiative, the statistical significance of differences in average estimates of pupils according to their gender and age was tested. The results of the bidirectional testing on significance of differences by gender and age (Table 4) show statistically significant differences between boys and girls, younger and older pupils, as well as in the interaction effects of gender and age.

Table 4. The results of the bidirectional testing of difference in estimates of personal entrepreneurial potential

Source of variability	**F**	**df**	**p**
Main effect			
Gender	29.68	1	**0.00**
Age	65.54	1	**0.00**
Interaction effect			
Gender X Age	4.20	1	**0.04**

When it comes to self-assessment of personal enterprise initiative, the *post hoc* analysis shows that girls achieved a higher score evaluation (M = 3.935, SD = 0.440) than boys (M = 3.822, SD = 0.534). It was also found that younger pupils had significantly higher score (M = 3.968, SD = 0.466) than older pupils (M = 3.795, SD = 0.511).

Table 5 Arithmetic mean estimates of personal entrepreneurial potential by the main effects of pupils' sex and age

			M	**SD**	**N**	**Post Hoc analysis**
Gender	1.	Boys	3.822	0.534	959	1. ≠ 2. (p=0,00)
	2.	Girls	3.935	0.44	1003	
Age	1.	Younger	3.968	0.466	966	1. ≠ 2. (p=0,00)
	2.	Older	3.795	0.511	996	

These results may show that girls evaluate their entrepreneurial potential higher and more positively. The results of this study partially agree with previous studies that used the personal entrepreneurial potential scale (Athayde, 2009; Steenekamp et al., 2011).

Table 6. Arithmetic mean estimates of personal entrepreneurial potential with respect to the interactive effect of pupils' sex and age

			M	SD	N	Post hoc analysis
Boys	1.	Younger	3.932	0.506	488	4. ≠ 3. (p=0.00)
	2.	Older	3.709	0.559	471	4. ≠ 2. (p=0.00)
Girls	3.	Younger	4.005	0.419	478	3. ≠ 2. (p=0.00)
	4.	Older	3.873	0.45	525	2. ≠ 1. (p=0.00)

The results of a British research on the overall differences by gender showed that boys achieved significantly higher results than girls (Athayde, 2009) in terms of personal entrepreneurial potential. The results of another study (Steenekamp et al., 2011) showed that women scored higher on the overall results of personal entrepreneurial potential as well as on its particular dimensions. The interactive effect of gender and age proved to be statistically significant. The significance of this interaction suggests that the boys in the 8th grade had significantly lower score on the scale of personal experience of entrepreneurial potential in relation to the girls in the 8th grade and boys and girls in the 6th grade.

Austrian educator F. Edler's research results on how pupils feel in Austrian schools showed that ˝after the first four grades of elementary school it is possible establish that the concept of pupils' own abilities in the upper primary and lower secondary schools declines, in order to raise again during the ninth or tenth year of schooling ˝ (Hoffmann, 2008:14). Such a decrease in the assessment of their own abilities is probably due to a decrease of grade point average and increase of the time it takes to invest in work and learning in relation to the lower classes (Hoffmann, 2008). According to a study of entrepreneurial competencies of German adolescents, the effect of age plays a significant role: the older the respondents were, the lower was the level of their self-assessment of their own entrepreneurial competence (Schmitt-Rodermund, 2004). The studies on pupils' self-perception led to a conclusion that in the

context of academic achievement, it declines with the increase of years spent in school system (Miller, 1987, in Lackovic-Grgin, 1994).

6. CONCLUSION

Given the intention of educational policy to consistently the curriculum paradigm and competence approach at all levels of education, entrepreneurship as an educational area and the acquisition and development of entrepreneurial competencies as one of the eight key competences, presupposes its application on the pre-tertiary education. In order to determine components of entrepreneurship and entrepreneurial competencies, the aim of this paper is to explore one segment of entrepreneurial competence as a prerequisite for efficient curriculum planning and programming, and refers to the elementary school pupils' self-perception of entrepreneurial qualities.

Self-assessment is related to pupils' personal attitudes about themselves thus it becomes a factor in their potential actions. Therefore, the results of this study are of extreme practical use for curriculum changes. Namely, if the pupils show a high degree of self-assessment of their entrepreneurial characteristics for all elements, they could highly evaluate the level of achievement of curriculum changes. However, the results are the opposite, and thus they are binding and guide us towards making changes in the curriculum.

The initial assumptions showed that the pupils evaluated differently their entrepreneurial skills in school work and in teaching because entrepreneurial learning was not an explicit goal of teacher's educational activities. The results showed that the self-perception of personal entrepreneurial skills could have the highest average scores related to future job and career success in business and future careers that would depend on pupils and their abilities. Pupils also believed that they would have an equal chance of getting a job in the future. They also expressed an affirmative attitude about themselves in joint work.

Regardless of whether the pupils' affirmative attitude observed was higher or lower, there is room for pedagogical action. Encouraging creativity and innovation is a permanent pedagogical aspiration as only these can lead out of the frame of traditionalism and modernize the educational work in schools.

In this research, our expectations, based on the theory of entrepreneurship and previous research insights, were to possibly discover latent, independent and the substantially different dimensions of self-assessment on entrepreneurship. This assumption was not confirmed, because the research

results of self-assessment on pupils' entrepreneurship showed a single-factor dimension of attitudes towards their own entrepreneurial initiative. It can be explained as a general attitude that the pupils have about themselves and their entrepreneurship.

The last two conditions were related to the gender and age differences when assessing their entrepreneurial skills. The research analyzed the differences in pupils' self-assessment according to gender and age, where girls achieved better results in terms of gender. In terms of age younger students evaluated their entrepreneurial potential more positively.

The results provide guidance for an efficient realization of entrepreneurial learning, assuming that the education system needs to get out of the chains of objectivity, because the competencies are developed as generic or transversal, and they relate to curricular goals. The creative spirit is recognized and can be effectively developed at all levels of pre-tertiary education. Creating conditions for the realization of social entrepreneurship as a vocation and a profession is in the hands of the education system, but still connected to the economy and entrepreneurship.

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SAMOSTALNA PROCJENA PODUZETNIČKE INICIJATIVE OD STRANE UČENIKA HRVATSKIH OSNOVNIH ŠKOLA

Sažetak

Definiranjem poduzetništva kao obrazovne vrijednosti, obrazovni sustavi i društvo pokazuju svoju predanost socio-kulturnoj vrijednosti poduzetništva, ali istovremeno i grade poduzetničke kompetencije učenika. Zahtjev za ohrabrivanjem ranog razvoja inicijative i poduzetničkih kompetencija se artikulira u strukturalnim i proceduralnim razinama razvoja kurikuluma i promjenama obrazovnog sustava. Ovaj rad analizira samostalnu procjenu poduzetničke inicijative među učenicima osnovnih škola u Hrvatskoj, kako bi se utvrdile poduzetničke karakteristike i preferencije učenika. S obzirom da samostalna procjena i stavovi učenika ukazuju na potencijalnu poduzetničku aktivnost, cilj ovog istraživanja je identificirati komponente poduzetničkih kompetencija, koje je potrebno optimizirati unutar formalnog obrazovnog sustava. Stoga je ono provedeno na nacionalnoj razini, na uzorku od 1.962 učenika osnovnih škola. Rezultati istraživanja govore da su učenici pozitivno evaluirali poduzetničku inicijativu i percipirali je kao implicitnu karakteristiku vlastitih aktivnosti i uključenosti, a ne kao eksplicitnu i nametnutu. Stoga se multi-dimenzionalnost samostalne procjene poduzetničke inicijative od strane učenika nije mogla potvrditi. No, bez obzira na to, utvrđene su pozitivne preferencije učenika, iako one nisu dovoljno izražene. Anketa je potvrdila razlike u spolu i dobi, koje su se reflektirale u razlikama u evaluaciji i poduzetničkom iskustvu. Rezultati također govore da je potrebno afirmirati podučavanje poduzetništva kroz svakodnevne aktivnosti, jasnije artikulirati obrazovnu komponentu poduzetništva te djelovati na sinergiju između razina obrazovanja i nastavnih predmeta.