



Mini-companies as an essential part of a lifelong learning program for high school students

Aleksandra Stevanović, Snježana Djurdjević, Bojana Sokolović

1. Background and purpose of the research

Education process today is an integral part of the era of turbulent exchanges, 4.0 industry, digitalization, and soft management. It requires an expanded definition of learning practices where the significance of the relationship between schools and organizations becomes more prominent. In the literature, there is an attitude that business schools should respond with 'continuous attention' to theory/practice linkages (Porter, McKibbin, 1988). Systematic attention needs to be paid to the various types of company-based field experiences, their different learning objectives and expectations, the roles of all stakeholders in the learning process (Limerick, Moore, 1991). Authors pointed out on two clearly separated learning arenas: university and company. The university provides cognitive, intellectual framework; company or enterprise teaches skills in applying these to practice (*ibid.*). Everything aforementioned leads us to define 'student enterprises' which are presented by: extracurricular program of Junior Achievement Worldwide and Junior Achievement Europe.

In a junior achievements program, groups of high school students are organized into companies that 'sell' stock to raise capital, appoint employees, buy materials, manufacture and market a product, pay dividends to stockholders, and liquidate their company in the course of fifteen weeks. To manage their operations, students comprising each company make their own decisions regarding the appropriate amounts required for their own

salaries, wages, and commissions. They must also keep production and financial records, pay rent for space and equipment, and pay taxes and dividends if profits are realized (Cousins R. et.al., 1995). Enterprise education is the application of creative ideas and innovations to practical situations – with the aim to produce individuals with the mindset and skills of responding to opportunities, needs and shortfalls, the key skills including taking the initiative, decision making, problem solving, networking, identifying opportunities and personal effectiveness. Entrepreneurial frame can be applied to all areas of education, extending beyond knowledge acquisition to a wide range of emotional, social, and practical skills; and Entrepreneurship education is the application of enterprise skills specifically to the creation and growth of organizations, with entrepreneurship education focusing on developing skills and applying an enterprising mindset to the specific contexts of setting up a new venture, developing and growing an existing business, or designing an entrepreneurial organization (QAA, 2010).

Further, 'student's enterprises', represents the world's largest entrepreneurship education program, which is attended by more than 10 million students a year. In Serbia, the program was implemented in 2006. Since then, over 60,000 students in 286 primary and secondary schools from all over the country have gone through educational programs in the field of entrepreneurship and financial literacy (Kisic, Petkovic, 2019). That way, students have the opportunity to learn through theoretical and practical lessons, a mentorship program, as well as through a number of fairs and competitions. During one academic year, students get an opportunity to create and manage their own enterprise with real issues and challenges. It seems to be their first practical entrepreneurship experience, so they get the opportunity to gain valuable knowledge and skills, and complement their theoretical knowlegde with basic skills of managing a business. In the paper we emphasise the significance of interactive learning projects involving students and their teachers, who are at the same time mentors and additional support of student organizations. In the research we aim to elaborate the influence of Junior Achievement programs (student-organizations) in Serbia, on the students' increasing knowledge and skills. We examined the possibility of students' skill development and knowlege expansion, and how these different aspects of practical learning lead students to increase competences for doing business. The development of those skills is guidance for their future business and management capabilities, and their competitiveness at the labor market. The key point of this program is to teach

students how to be proactive and entrepreneurship-oriented, as well as to encourage them to think in an innovative and responsible way. European and worldwide researches refer to the impact of 'student-enterprises' on the significant improvement and development of skills: presentation skills, collaboration and team spirit, risk management, problem-solving abilities, adaptability, self-confidence, negotiation skills, ability to persuade, creative thinking, time management, etc. The ultimate goal of this study is to verify whether there is important influence of 'student-enterprises' on the attitude of an individual ability for promoting skills, knowledge, and competences toward entrepreneurial spirit.

Positive effects of different entrepreneurship programmes on student's knowledge

Results obtained in the study of ICEE (The Innovation Cluster for Entrepreneurship Education) indicate the following teacher's attitudes: Teachers believe that program offers clear and significant results in the development of:

1. Students' attitudes (creativity, achievement tendency, persistence, risk taking etc.)
2. Skills (setting goals, team work, communication skills, presentation skills)
3. Meaningful knowledge related to different phases in the business (ideas, business plan, production, presentation etc.)
4. Personal development of students (self-confidence, competence, responsibility, commitment, proactivity, independence) (Kisic, 2019).

Authors (Williamson N. et.al., 2013) presented outcomes and impacts of entrepreneurship education studying the literature and indicated that:

1. Participation does lead to students acquiring relevant business-related knowledge, skills and competences for enterprise and entrepreneurship;
2. Participants are more likely to change attitudes, such as those concerning risk taking, and intentions, such as attitudes concerning self-employed or being entrepreneurial, than non-participants;

3. Studies show mixed results about whether such courses increase students' perception of feasibility; it is greater in Wales where enterprise and entrepreneurship education appears to be more embedded in school and FE (Further education) than in England;
4. There is no evidence that students are more likely to take steps as a result of courses towards the development stage of a new business or using the skills gained to develop new business opportunities in an existing small or large business;
5. There are, however, positive statistical relationships between various enterprise and entrepreneurship education learning activities in school and tertiary education and economic impacts including starting a new business (strong evidence for entrepreneurship course graduates); increasing employability and earnings; and contributing to the growth of businesses (especially for graduates entering small businesses). These suggest that enterprise and entrepreneurship education is a positive stimulus;
6. One study suggests a net positive impact on GVA (Gross value added) of enterprise and entrepreneurship education in HE (Higher education).

Methodology

An examination sample size was 269 respondents. It included 174 students employed in student companies, and 95 teachers hired as a mentors in student's companies founded by high schools of Serbia. The instrument used for the study was questionnaire ('student's organization questionnaire') conducted by the authors. The questionnaire is consisted of 12 items, based on the practical implications and theoretical framework of student organizations. Some questions were answered checking one or more answers, and some questions were based on Likert scale (1 – not at all true, 2 – mostly not true, 3 – not sure, 4 – mostly true, 5 – quite exactly), where respondends indicated their level of agreement with the given statement.

The questionnaire was anonymous, delivered via Google Forms, as a quick link, conducted in April and May 2017.

The structure of the whole sample with respect to sociodemographic variables (gender, age, occupation, professional experience/type of school, education) is presented as follows:

Table 35: Gender of respondents

	Students	Teachers
Male	66	38 %
Female	108	62%
	174	100%
		95
		100%

As shown in the Table 35, in the survey participated 38% male students, and 62% female students. The age of student participants were in range 15 to 28 years old. Structure of students related to their current status is:

- 69,5% high school students,
- 20,1% university students,
- 10,4% already employed.

Analyzing data in the Table 36. it is evident that 72,99% of respondents considered their participation in 'mini-company' will contribute increasing competencies for founding their own business.

Table 36: Contribution to student's competencies by participating in mini-companies in relation with current occupation of students

Strongly disagree	Does Your participation in Mini-company contribute to your competency for founding Your own business?					Total
	Disagree	Neither agree or disagree	Agree	Strongly agree		
	Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	
What is Your cur- rent oc- cupation?	Unemployed	0	0	0	1	0
	Student-graduated	1	2	10	16	16
	Student-cur- rently	2	5	25	45	44
	Employed	0	0	2	4	1
Total		3	7	37	66	61
%		1,72	4,02	21,26	37,93	35,05
						100

Structure of teachers responsibility in the survey is shown as follows:

- 70% teaching vocational subjects
- 30% grammar school subjects (general education).

Question for the students: satisfaction with the program 'mini-companies' - it was suppose to estimate on the Likert scale. Results:

- 93,11% picked Agree and Strongly agree on the Likert scale which represents their high satisfaction with the program,
- 6,89% picked other items on the scale.

There is no significant difference between degree of satisfaction compared if respondents attend or not entrepreneurship course in the high school.

Table 37: Degree of satisfaction with the program and attending subject entrepreneurship in school (cross tabulation)

		Degree of satisfaction with the program 'Mini-company'					Total
		Strongly disagree	Disagree	Neither agree or disagree	Agree	Strongly agree	
Do/Did You attend entrepreneurship in the school?	Yes	0	0	6	39	32	77
	No	1	1	4	43	48	97
Total		1	1	10	82	80	174
%		0,57	0,57	5,75	47,13	45,98	100

In terms of recommendation the program to other students, answers were:

- 98,85% yes
- 1,15% no.

Table 38: Recommendation of the program and current occupation of students (cross tabulation)

		Would You recommend this program to other students?		Total
		Yes	No	
What is Your current occupation?	Unemployed	1	0	1
	Student -graduated	45	0	45
	Student - currently	119	2	121
	Employed	7	0	7
Total		172	2	174
%		98,85	1,15	100

Results

In our study we tried to assess different student and teacher statements related to work in 'mini-companies' in order to better understand their engagement in it, and study the positive effects of those engagements. There are certain observations there:

Students were asked to pick four of all proposed answers to declare why they apply for program of 'mini-organizations'. Proposed answers were:

1. Curiosity
2. Teacher's decision
3. Opportunity to earn something
4. Acquisition of new knowledge
5. Meeting new people and socializing
6. Absence from school
7. I estimate it as useful and profitable
8. Persuaded by friend
9. I can demonstrate my creativity and capacity for innovation
10. Personal development
11. I was idle
12. Other

Students are introduced to program -'mini-companies' mostly because of the following 5 reasons:

1. Acquisition of new knowledge 20,32%
2. Meeting new people and socializing 17,31%
3. Personal development 16,96%
4. Curiosity 13,6%
5. I estimate it as useful and profitable 12,72%.

Results of teacher opinion have shown the similar grade of proposed categories.

1. Useful (for students) 32,44%
2. Acquisition of new knowledge 27,86%
3. Possibility of teacher's creative expression 14,88%

Further, we investigate what knowledge and skills students have acquired during the program of 'mini-companies' according to their own opinion. This grade is shown in the Table 39.

Table 39: Students opinion about knowledge and skills improved during the program (the respondents were able to choose 4 answers in total)

Students			
Knowledge:		Skills:	
How the business world functions	16,67%	Presentation skills	13,82%
Creating a business plan & a business report	14,88%	Teamwork	12,54%
Basics of how to run my own company	13,84%	Confidence	11,82%
Time management + teamwork	13,84%	Competitive spirit	9,69%
Marketing	12,35%	Communication	8,26%
Decision making	11,16%	Risk taking	7,98%
Basics of entrepreneurship	10,42%	Creativity development	7,55%
Business correspondence	2,68%	Setting goals	7,55%
Knowledge in English	2,23%	Negotiation skills	7,41%
IT competencies	1,64%	How to fight for my idea	6,27%
No added value for me	0,30%	Organizing	4,27%
		Dealing with conflict	2,85%
		No added value for me	0,0%

Equally important is opinion of teachers regarding accomplished skills and knowledge of their students during the attendance course of 'mini-companies'. It is shown in the Table 40:

Table 40: Teachers opinion of knowledge and skills students improved during the program (the respondents were able to choose 4 answers in total)

Teachers			
Knowledge:		Skills:	
How the business world functions	19,79%	Teamwork	18,90%
Creating a business plan & a business report	16,84%	Presentation skills	17,59%
Basics of how to run my own company	14,97%	Confidence	14,44%
Time management & teamwork	12,03%	Creativity development	13,39%

Basics of entrepreneurship	11,23%	Competitive spirit	10,76%
Decision making	10,70%	How to fight for their idea	6,82%
Marketing	9,36%	Communication	6,04%
IT competencies	2,41%	Setting goals	4,46%
Knowledge in English	1,60%	Negotiation skills	2,62%
Business correspondence	0,80%	Risk taking	2,62%
No added value for students	0,27%	Organizing	1,57%
		Dealing with conflict	0,79%
		No added value for students	0,0%

In addition to the previous, we analyze categories labeled 'other' in the questionnaire which was set up as a free form. Teachers got a chance to give descriptive answers on what the positive experiences working with students in 'mini-companies' were. Most of their answer can be summarized in the few following items:

1. Two – way communication with students.
2. Excellent feedback for the future teaching lessons.
3. Clear link between the business and economy.
4. Problem-solving techniques which are not related to education institutions.
5. The removal of barriers between students and teachers, encouraging students' motivation and innovation.
6. Personal development of students and their teachers.
7. Socializing and meeting interesting people.
8. Creative work with students.

Besides that, the most important visible result was upgraded knowledge of the students and positive attitude toward their future occupation. Teachers argue that students who attended the program of 'mini-companies' turn out to be individuals who successfully respond to all the opportunities and challenges of the business life. All this is due to the facts that they developed or promoted key skills important for business managing, gained self-confidence, took the initiative, learnt how to make decisions, mastered problem solving, coped with networking, and identified opportunities and personal effectiveness.

It represents one step closer to sustainable careers of students as future employees in real corporations.

Discussion and recommendation for the future research

The analysis of the results leads to the conclusion that the main assumption “participation in the mini-companies will lead to increase in the knowledge of students and development of skills and competencies” is proven. Hence, results have shown a direct and clear connection between leading mini-companies and the major development of business-related student knowledge and soft skills. There is also an agreement between teacher and student opinion concerning the positive effects of participation in the mini-companies program. The students considered they've upgraded and improved their skills and knowledge, concurring with teachers' attitude that program has been successful and useful for students. Another positive side of participation in mini-companies could be motivating teachers with higher potential to utilize their professional and business knowledge. All the aforementioned is in accordance with the prior studies (Kisic Petkovic 2019; Lackeus 2005; Williamson et.al. 2013), which argue that mini-companies provide excellent foundation for continuous education, promoting business knowledge, encouragement to evolve skills and prepare students for future challenges in their academic, private and business life.

However, there are some limitations in our research. Research instruments need to be expanded for future researches in order to get a clear picture of all the aspects of participation in ‘mini-organization’ program: it is necessary to make a distinction between the opinions of current students and students who finished high school, broader opinion of teachers with regards to their experience in the real business situation, following further steps in the student's career after the finished program and high school, etc. Consequently, we propose additional research in the forthcoming year, with comprehensive instrument and more extended statistical analysis to encompass all types of schools, more students and their mentors, and broad spectrum of skills and competencies of students. Furthermore, it is suggested to consider how mini-companies can become sustainable, with regards to the sustainable venture creation approach (Lackeus, 2013).

Literature

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