

ECONOMIC KNOWLEDGE AMONG PRIMARY SCHOOL STUDENTS – AN EXAMPLE OF TWO POLISH SCHOOLS IN THE GDAŃSK REGION

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Abstract

Purpose: The postulate for development of economic competences for children and youth, at all stages of education, is related to, among others, the Recommendation of the European Parliament and the Council of 18-12-2006 on Key Competences for Lifelong Learning. The issue of economic education is all the more important, because a very negative picture has emerged from the research on the level of adult Poles' economic knowledge and competences. Improvement of this state of affairs is possible primarily owing to the economic education of children and youth. Changes in the curricula in this area should be preceded by research on the current state of economic knowledge among schoolchildren. The aim of the study was to verify the level of basic economic knowledge among the students of the highest primary-school grades. Three research questions were formulated for the purpose of such verification: RQ1: Do the students of the highest primary-school grades in Poland recognize basic economic concepts? RQ2: Do the students understand the basic economic concepts correctly? RQ3: Can the students apply their economic knowledge into practice?

Methodology: The study implemented a survey research characterized by the following features:

- the study covered 12 classes in two primary schools: one in a small city and the other in a large city; in total, 208 questionnaires were filled out by primary-school students;
- the survey consisted of 3 sections, concerning: (I) recognition of economic concepts, (II) knowledge of economic concepts and (III) application of economic knowledge.

The authors developed the questionnaire using the conclusions drawn based on a literature review of the subject matter.

Findings: The results of the survey show that majority of the primary-school students recognize such basic economic categories as: market, money, price, inflation, demand, supply, investment, profit, etc., thus, a positive response to RQ1 was obtained. Answers to the questions posed in section II indicate that correct and incorrect understanding of economic concepts is evenly distributed among the population examined, and, in consequence, it is impossible to clearly assess the level of the students' knowledge. The ability to apply economic knowledge in real life practice should be assessed similarly. As such, RQ2 and RQ3 remain without positive or negative verification. The general conclusion from the questionnaire analysis is the lack of significant differences in the recognition of economic concepts as well as in the understanding and application of economic knowledge in real life, on the part of the primary-school students in a small and a big city.

Research limitations: The main limitation of the study is the scope of the population examined. Since the survey was conducted in two schools from one Polish region, conclusions can only be applied to such a narrow local context. Extension of the inference to a wider, supra-regional or supra-national area would require research of a correspondingly greater range. Additionally, because the study did not yield answers to RQ2 and RQ3, verification of these questions requires additional, more extensive and deeper research.

Originality/value: The study increases the state of knowledge about the students' skills, in terms of economic concepts and the ability to apply this knowledge in their lives. This knowledge is of key importance, with regard to construction of the framework and the content in the curricula implemented at Polish elementary schools. It can serve as an indication for both those who perform supervisory and regulatory functions over the primary education system as well as for the persons implementing the didactic process.

Keywords: primary education, economic knowledge

1 INTRODUCTION

Efficient and responsible functioning in the contemporary, complex and rapidly changing world depends to a large extent on economic knowledge and entrepreneurial attitude. Primary-school students face economic phenomena on a daily basis and partly take part in economic life as well. Every day they see how parents go to work to earn money, at home they talk about bills, they do shopping. The building of economic awareness should start as early as in primary school and ought to be continued at subsequent stages of education. Its aim should entail stimulation of entrepreneurship in children and youth as well as development of economic interests [2].

The postulate for development of economic competences for children and youth at all stages of education is related to, among others, the Recommendation of the European Parliament and the Council of 18 December 2006 on Key Competences for Lifelong Learning. The document was prepared in order to determine new basic skills, which are the main element of Europe's activity, in the face of globalization and the transition to the model of a knowledge-based economy [8].

For over ten years, an increase in the economic activity of children youth has been observed in Poland. It has been related to the development of the economy resulting from the political and economic transformation after 1989. Dynamic development of trade and of the financial services sector have caused increased interest and activity of the Polish public in economics. According to the research carried out by Ipsos in 2010, children as young as four years old are economically active, some of whom receive regular pocket money. This was confirmed by a research carried out in 2016 by the IQS agency, as part of the "Kid's Power" project, which also indicated that children increasingly often co-decide on the consumer choices in the family [3]. This data, however, is in contradiction with the studies indicating the level of knowledge and economic competences in adult Poles. The state of adult Poles' knowledge is far from satisfactory, which is confirmed, for instance, by a study carried out by the OECD. According to this study on the level of financial awareness, Poland took last place among the 30 countries and the 51 thousand respondents surveyed [7]. Other studies also leave no doubt: Poles lack the knowledge of basic economics, they are not familiar with the principles of the tax and the banking systems, they do not know how to save and multiply their capital [10]. This has also been confirmed by the monitoring carried out by the National Bank of Poland, which revealed that in recent years, only about half of the respondents answered the questions regarding basic economic categories correctly [1].

At the same time, studies on the economic knowledge among students, carried out in recent years, paint a different picture - although the level of knowledge is not very high, it remains at a stable, relatively high level [5]. A summary of the research carried out among children and adults indicates a dysfunction in the process of economic education, from pre-school to professional or higher education. Improvement of this situation is mainly possible owing to the improvement of the economic education provided for children and youth, regardless of the need to further educate adults. The change of the curricula in this area should be preceded by research on the current state of the economic knowledge among school-age students. This will allow a diagnosis of the misfunctions existing in the process of economic education as well as indication of the scope and the depth of the necessary changes.

2 METHODOLOGY

The aim of this work is to verify the level of basic economic knowledge among the students of the highest primary-school grades in two primary schools of the Gdańsk region - one school from a small city and one from a large city within a large urban metropolis. The survey incorporated a survey questionnaire method to check three research questions:

RQ1: Do the students of the highest primary-school grades in Poland recognize basic economic concepts? and if they do, then:

RQ2: Do the students understand the basic economic concepts correctly?

RQ3: Can the students apply their economic knowledge into practice?

The study involved a survey questionnaire characterized by the following features:

1. the study covered 12 classes in two primary schools: one in a small city and the other in a large city;
2. in total, 208 questionnaires were filled out, 204 of which were subject to analysis, while 4 questionnaires were omitted because of the way they had been filled out;
3. the survey consisted of 3 sections, concerning:

- recognition of economic concepts (5 questions),
- knowledge of economic concepts (5 questions),
- application of economic knowledge (5 questions / examples to be solved).

The authors developed the survey questionnaire on the basis of the conclusions drawn from a review of the subject-matter literature. Some of the questions were taken from the existing research, others were formulated by the authors.

Due to the fact that primary-school students' perception varies, depending on the education and knowledge level of a given class, modified versions of the questionnaire were used. Examples of the survey questions, from sections I and II, for grades V and VI of primary school, are presented in Table 1.

Table 1. Exemplary survey questions – section I and II.

questions	description of the category*
1. Select words the meaning of which you understand <input type="checkbox"/> 1 – money <input type="checkbox"/> 2 – tax <input type="checkbox"/> 3 – bank <input type="checkbox"/> 4 – price <input type="checkbox"/> 5 – inflation <input type="checkbox"/> 6 – deflation <input type="checkbox"/> 7 – market <input type="checkbox"/> 8 – demand <input type="checkbox"/> 9 – supply <input type="checkbox"/> 10 – revenue <input type="checkbox"/> 11 – cost <input type="checkbox"/> 12 – profit <input type="checkbox"/> 13 – investment <input type="checkbox"/> 14 – enterprise <input type="checkbox"/> 15 – tax office	the money deposited at the bank by its clients
	the money paid by citizens to the state, intended for implementation of public-interest tasks
	an agency, which whose task is to show citizens how to conduct a business activity
	negative result of business operations, being a surplus of costs over revenues
	a countrywide increase in the average level of the prices of goods and services
	an entity conducting business activity in order to benefit its owners
	a place of contact between sellers and buyers
	the willingness to buy goods or services at certain prices, in a given place and time
	the amount of goods and services offered on the market by sellers
	the value obtained through the sale of goods or through performance of work
	the value of the goods expressed in money
	a positive business result, being a surplus of revenues over costs
	purchase of property, as to gain some benefit in the future
	the goods considered as the means of exchanging goods and services, in which the prices and values of all other goods are expressed
	property consumption expressed in value, usually related to the desire to earn income
2. If you have selected a word, find its correct description in the table next to it and enter the number of the corresponding word in this description.	an institution whose task is to collect taxes from citizens
	a countrywide decrease in the average level of prices of goods and services
	the quantity of the goods and services produced by producers
	an institution that conducts business activity, including, inter alia, taking money from customers and granting them loans

The questions formulated as tasks to be performed also had a different degree of difficulty, depending on the level of the class. Regardless of the given class level, however, all 5 questions / tasks addressed the same categories:

- the time value of money (capital interest),
- inflation / deflation,

- sales revenue,
- the cost associated with the income,
- determination of income / profit.

Since the answers to the questions in sections II and III are subject to evaluation, the following evaluation scheme has been created for these questions:

1. section II questions were rated with 0 or 1 points, depending whether the answer was correct or not;
2. the rating for section III questions ranged from 0 to 5 points, depending on the level of correctness of the answer provided – 0 points for a lack of an answer or a fully incorrect answer, 5 points for a fully correct answer.

3 RESULTS

The responses in the questionnaires were analyzed, in order to obtain structured information on the recognition of economic categories and the level of understanding of these categories. The data resulting from this analysis of the survey questionnaire is presented in Table 2.

Table 2. Recognition of economic categories and the level of their understanding - data based on the answers obtained from the survey questionnaire

Recognition and knowledge of the economic-category concepts (percentage of indications in all questionnaires)			
category	recognizability	evaluation of the understanding of the categories	
		correct	incorrect
money	99	68	32
tax	95	62	38
bank	95	83	17
price	90	88	12
inflation	43	14	86
deflation	45	8	92
market	82	75	25
demand	59	19	81
supply	38	12	88
revenue	68	75	25
cost	79	70	30
profit	82	72	28
investment	63	55	45
enterprise	68	74	26
tax office	75	77	23

Economic categories – the students' ability to use these concepts (percentage of indications in all questionnaires)

	evaluation				
	1	2	3	4	5
time value of money (capital interest)	18	23	41	13	5
inflation/deflation	61	22	9	8	0
sales revenue	40	43	8	9	0
the cost associated with income	38	39	12	11	0
determination of income / profit	21	40	27	10	2

Graphic representation of the results obtained is presented in figure 1.

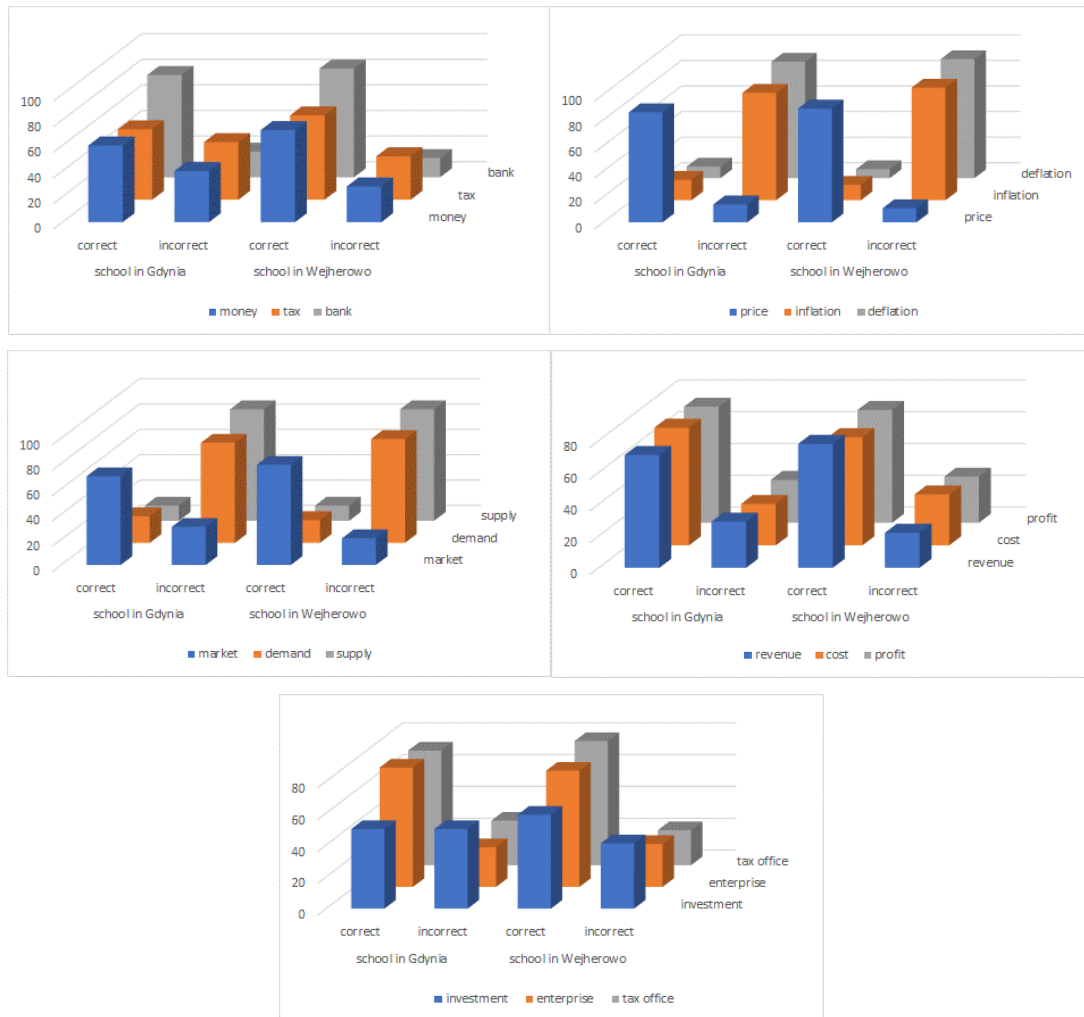


Figure 1. Understanding of economic categories in the studied schools.

4 CONCLUSIONS

The discussion

The results of the survey show that majority of the students recognize such basic economic categories as: money, tax, bank, price, market, demand, revenue, cost, profit, investment, enterprise, tax office. Despite the fact that some economic categories did not obtain a majority of positive indications, it should be stated that the results of the questionnaire allow positive verification of RQ1. The students, in majority, pointed to the following categories as those they are unfamiliar with: inflation, deflation, supply, and thus these concepts should be considered as quite specialized ones, not directly referring to the everyday life of students.

Answers to the section II questions indicate that correct and incorrect understanding of economic concepts is distributed evenly among the population under analysis, hence it is impossible to clearly assess the level of the students' knowledge. Negatively verified knowledge was related to such concepts as inflation, deflation and demand, which are relatively difficult to be understood properly, especially for students of grades V and VI – where the percentage of answers indicating unfamiliarity with these categories or incorrect answers regarding the meaning of these concepts was the highest. However, evaluation of the level of knowledge of such relatively simple terms such as: money, tax, investment, has not been settled. The number of erroneous indications in this context is surprising, especially when compared to the relatively high share of the correct recognition of such terms as revenue, cost and profit. In the authors' opinion, the main reasons for these inconsistencies derive from the below-described limitations of the research.

The ability to apply economic knowledge in life should be assessed similarly. Generally, students had difficulties with correctly solving the tasks, despite the fact that, in the opinion of the authors (the authors

are experienced teachers of primary-school, secondary-school and university level), the questions and the tasks contained in the questionnaire were not overly difficult. Only the task related to the value of money passed the test positively for the majority of the surveyed students, while the task involving determination of profit was close to this majority.

Considering the above, RQ2 and RQ3 remain without positive or negative verification. For confirmation or falsification of these research questions, it is necessary to conduct a deeper and broader study, which would not be adversely affected by the limitations associated with the adopted research methodology.

Other conclusions from the analysis of the results are as follows:

The questionnaires confirm the dependence, as expected by the authors, between the level of the class and the degree of correctness with regard to recognition and understanding of the economic categories presented in the questionnaire - the higher the class, the higher the degree. This relationship has downright the form of a proportional linear function.

With regard to the recognition of the economic concepts, there are no significant differences between the students from a small and a big city in understanding and application of economic knowledge in life. Approximately half of the surveyed students attend a primary school located in a city with a population of about 50 000 inhabitants (Wejherowo), which, under the Polish conditions, is regarded as a small city. The other half are students from a school in a city with a population of 250 000 inhabitants (Gdynia), constituting a coherent element of the Gdańsk metropolis, which is ranked among the first three cities / urban complexes in Poland. Despite this, no difference in the level of the students' economic knowledge was found. This conclusion is in contradiction with the studies carried out, which showed dependencies between the size of the city/town and the level of the students' economic knowledge [6]. This may be caused by a variety of factors - according to the authors, the relatively small differences existing between the urban environment of Gdynia and Wejherowo are essential here. The reason may also be the unrepresentative nature of the sample and its limited scope.

Originality/value.

This study fits the trend of research on economic knowledge among students, however, majority of such studies concern secondary and higher-school students [eg. 4,9]. Research on primary-school students' economic knowledge in this area is scarce, hence the authors' willingness to expand the cognitive base in this field. Additionally, it should be remembered that research in this subject area quickly becomes outdated in the face of the rapid social, economic and, consequently, the educational changes taking place. This study fulfills the postulate of the necessity to constantly raise the practitioners', the theoreticians', and the researchers' interest in the subject area.

The study increases the state of knowledge about the students' skills and knowledge, in terms of economic concepts and the ability to apply this knowledge in their lives. This knowledge is of key importance for construction of the framework and the content of the curricula implemented at Polish elementary schools. It can and should be a guide both for those who perform supervisory and regulatory functions over the primary education system as well as for the persons implementing the educational process. The dynamic social and economic processes require constant monitoring of the level and the quality of the economic knowledge relayed to students at every level of education.

Research limitations

The primary limitation of the study is the scope of the population surveyed. Since the survey questionnaire was carried out in two schools from one Polish region, conclusions can only be applied in such a narrow local context. Extension of the inference to a wider, supra-regional or supra-national area would require research of a correspondingly greater range.

Another limitation is the scope of the economic concepts verified. This scope entails an authorial selection of the sample, thus it is possible that it is not an optimal one, despite the fact that the authors tried to balance the need to establish a full set of the economic categories with the primary-school students' perception and mindset.

Furthermore, since the study did not yield answers to RQ2 and RQ3, verification of these questions requires additional, deeper research. In the authors' opinion, it is reasonable to conduct qualitative research that would enable determination of appropriate categories of economic concepts to be subjected to analysis in the context of the students' knowledge.

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