

Financial Education as Significant Challenge for High School in Poland for the Upcoming Years

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The article presents the most important reasons for the low level of the financial and economic competences of high school students. The analysis in this area is based on the research conducted by the National Bank of Poland in November 2014. The aim of this article is to draw attention to the low status of the school subject „introduction to entrepreneurship” which is taught in the secondary school. For this reason the majority of young people lack the basic knowledge in terms of finance and economy. The GFC (global financial crisis) experience has shown that the level of financial liabilities is disproportionate to the possibility of their repayment. One of the reason for this behaviour is the low level of financial education among the young. Therefore, the role of entrepreneurship education at the high school stage is invaluable and determines future attitudes toward economic activity.

Keywords: financial education, financial literacy, introduction to entrepreneurship

Introduction

Financial education of both secondary school students and the whole society is aimed at increasing financial awareness concerning opportunities and threats connected with the set financial product. Financial education within the secondary schooling system should teach economic and entrepreneurial

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behavioural patterns along with identification of threats that more complex and risky financial products could result in and which are increasingly often used by the society nowadays. In high-developed countries cashless transactions are becoming more and more popular and it is difficult and inefficient to function on daily basis using cash only. Moreover, the aftermath of the last financial crisis proves a major role of financial education useful while applying for credit or loans (Iwanowicz-Drozdowska et al., 2008–2009). Thus the concept of financial education seems to be bout up-to-date and of primary importance. The article focuses as well on the analysis of economic-financial competences of the youth in order to identify the fundamental reasons for the low level of this kind of education in secondary schools and attempts to determine the room for improvement.

Financial education in secondary schools basis on "Rudiments of Entrepreneurship" („Podstawy przedsiębiorczości“) textbook. The course lasts three years and the required minimum number of teaching hours amounts to 60. The syllabus is included in the Directive of National Education Minister on pre-schooling and general education syllabuses. The Directive of the year 2008 enlists 23 areas that should be mastered by a school student at the classes in "Rudiments of Entrepreneurship". However, only 5 of them are linked to financial education. In the latest Directive of 2012 the number of areas is extended to 59 and the topics cover such fields of financial knowledge as: how to calculate interest rate and interest on credit and bank deposits, identify the difference between the set securities or investment forms as well how to assess a risk. Such an extended syllabus raises a question of whether it is feasible and possible for a teacher to meet the syllabus requirement within 60 teaching hours. It should also be noted that within the syllabus it is capital markets and macroeconomics that are given priority to. Less importance is, however, attached to personal finance management and moulding entrepreneurial attitudes.

Economic-financial competences of the youth

The notion of financial education is commonly used in literature. Yet, it is often confused with the concept of financial awareness. Financial education should be, thus, perceived as a part of economic education that – in turn – influences the way economic awareness is shaped. And the economic awareness should be defined as a set of abilities and skills as well as self-confidence while making economic decisions. According to the definition of Flejterski (2008) there are two kinds of economic awareness: deep and shallow one. The latter results from the analysis

of stimuli conveyed from the society and mass media to an individual, whereas the former one is shaped at the stage of school education and therefore is of long term nature (Flejterski, 2008). The article analyses the concept of deep economic awareness moulded by financial education.

In literature the concept of financial education predominantly concerns the process of acquiring knowledge, being, at the same time, a long-term procedure of moulding economic-financial competences.

Table 1. Definitions of financial education

Authors	Definition of financial education
Iwanicz-Drozdowska et al., 2009	Education enabling developing financial awareness in society so that they could be aware of both opportunities and threats of typical financial instruments as well as newly launched complex and complicated financial products.
Wachowiak et al., 2007	Process of developing financial competences.
Kurowski, Laskowska, 2016	Acquiring knowledge about features of financial products and services offered by financial institutions and ability to understand their specificity in changing economic environment that impacts responsible decisions in personal finance management.
National Council on Economic Education (NCEE), 2005	Knowledge of rudimentary dependences in economics and rules of functioning of domestic economy.
Lusardi, Mitchell, 2007	Knowledge of basic economic principles indispensable while taking decisions regarding savings and investment.

Source: the author's own discussion.

The analysis presented above is mainly based on the research data gathered by IQS-Quant Group and „Stocznia” Foundation of Social Research and Innovation commissioned by the National Bank of Poland in November 2014. The objective of the search was to check the level of the Polish youth in the area of finance and economics. The measurement method was based on tests in 4 modules:

- economic knowledge test,
- test in economic skills,
- knowledge of institutions,
- knowledge of economic terms.

Economic knowledge test included true/false tasks adjusted to the expected level of knowledge characteristic for the set level of school. As a result of the analysis concerning financial education, the test results prove that the youth are most knowledgeable in the area of pension system.

Table 2. Percentage of correct answers within each block

Area	Primary school	Pre-secondary school	Secondary school
Pensions	64%	65%	72%
Financial system and banks	61%	53%	60%
Taxes	60%	52%	60%
Stock exchange and monetary market	56%	49%	56%
Macroeconomics	23%	36%	47%

Source: NBP (2014).

What causes concern is the fact that 19% of students of pre-secondary schools considered true the statement: “In Poland each pensioner is paid the same amount of pension”. Almost a half of secondary schools students do not know the difference between a debit card and a credit card which might indicate insufficient knowledge of banking in this age group. They also found it difficult to define such simple bank products as a deposit and credit. As many as 36% of those taking the test in secondary schools disagree with the statement that the interest rate on bank deposit is always lower than the one on credit. Overall, concerning the first module it could be stated that the largest percentage of correct answers regards pensions, which is a positive aspect comparing to the USA where the research done proved that the low level of education of society in the area connected with pension plans significantly influences a drop in the amount of savings (Beshears et al., 2013).

The above is the instance of the impact of investment in financial education on economic growth through extreme tendency to making savings, thus making spending on financial education a kind of economic policy instrument.

The second module of the research referred to economic skills and competences checking on the basis of closed questions of a single choice and tasks involving making calculations. The most troublesome in this module were questions concerning simple bank products. In secondary school a mere 25% of students are able to calculate interests from a deposit. Therefore, if they do not understand the concept of bank deposit, it could be difficult to make them understand the concept of riskier banking products and services. Tasks in the test were not troublesome in terms of making calculations, and poor test result could be explained with insufficient knowledge of the product itself and the specificity of the language used by entities.

While comparing the results of economic knowledge test (part I of the NBP research) with the ones of the economic skills test (part II) it is apparent that

the former one brought about worse scores. This indicates that the economic competences are more often used as an instrument in managing personal finance rather than in understanding ongoing process in the economy. Practical application of these skills and competences is still insufficient which is reflected in the results concerning the task focusing on understanding the concept of bank deposit and the ability to calculate interest from them. Inability of practical application of the skills acquired results from insufficient importance attached to teaching personal finance management. From among 59 items enlisted in the syllabus only 3 referred to personal finance (ability to calculate interest from credit and deposit, bank offer analysis and correlation between potential amount of a pension and professional activity). The majority of items within the syllabus is likely to be understood only at economic studies (eg. such concepts as monetary policy instruments or capital market operations). Even within 60 teaching hours (allocated for accomplishing the “Rudiments of Entrepreneurship” syllabus) a teacher is unable to successfully put across the idea of capital markets or macroeconomics. Therefore, it is worth considering whether a better idea would be to teach entrepreneurial behavioural patterns, financial awareness and personal finance management rather than focus on the knowledge that within 60 teaching hours is unlikely to master?

In the research that was carried out scores from modules 1 and 2 have been added up dividing the students according to the scoring table. Thus, in secondary schools 28% of students would get an unsatisfactory grade (less than 50% of the points scored), and only 4% would receive a very good grade (over 90% of correct answers). If we assume that the scores might exemplify the potential ones of maturity exam in entrepreneurship, it becomes apparent that entrepreneurship would be a more difficult subject than the Polish or English language to pass on the basic level. Considering the questions asked by the NBP included in the economic knowledge test it should be pointed out that the questions were not difficult and they regarded basis economic and financial knowledge only. Hence, it is quite unlikely for the maturity exam in entrepreneurship to include a statement: “A bank can charge a commission for first holding an account” and to make a student decide whether it is true or false. Yet, such a question was correctly responded to by a mere 68% of secondary school students. The test included more difficult tasks to be dealt with, eg. “A growth in profitability of Polish treasury bonds is connected with a downturn in Polish economy” (true/false). In the already mentioned Directive of the Ministry of the National Education on the syllabus of “Rudiments of Entrepreneurship” subject there are also such items in the syllabus as: identification of the difference between sec of various securities types or explanation of the influence of budgetary deficit and public debt on economy. These items confirm that as of result of completing the whole syllabus

in detail such question as the one concerning bonds should not be troublesome to students. However, the correctly provided test answers stood only at 28%.

In 2005 the Warsaw School of Economics decided to include the subject “Rudiments of Entrepreneurship” in the qualifying test during the students’ recruitment process the decision debated on during the pan-Poland Forum of Entrepreneurship Teachers and Economic Education. On the one hand, the subject remains outside the set of the subjects required to be taken at the maturity exam and on the other, the best economic university considered at that time the economic knowledge a prerequisite to be met to be recruited. The decision of the University enhanced significantly the importance of the subject. However, with the time passing the recruitment rules were changed and as yet it is the scores obtained at maturity exam that decide upon being admitted or not to any university. Thus, the role of “Rudiments of Entrepreneurship” has eroded again down to its minor importance of before 2005 (Kawecki, 2005).

It seems now worth comparing the results of the NBP test with the one of the maturity exam of 2015 (Table 3). The benchmark in this comparison is the percentage of students who obtained less than 50% points to be scored in the 2015 maturity exam subjects.

Table 3. Percentage of students having scored less than 50% of the maximum score at the 2015 maturity exam²

Subject	Percentage of students
Geography	70%
Physics	66%
Biology	62%
History	53%
Mathematics (basic level)	49%
Chemistry	49%
Economic knowledge test (NBP; n=600)	28%
Polish (basic level)	16%
English (basic level)	16%

Source: Central Examination Board.

² In 2015 examination in obligatory, yet additional subject had to be taken at advanced level. At the basic level only obligatory subjects are to be taken, such as: Polish, Mathematics, foreign language.

The launch of the non-obligatory/optional maturity examination in “Rudiments of Entrepreneurship” will undoubtedly enhance a status of this subject as well as the youth’s attitude to it. However, the exam in this subject should still remain optional, since the analysis above proves a necessity of creating an environment for the secondary school students enabling them to not only taking but also passing the exam in this subject (suggested measures to be taken are discussed further in the article). In order to change the attitude of the youth toward the exam in economic and financial competences, it is necessary to take the results of the examination into consideration while recruiting the applicants to universities.

Module 3 regarded the knowledge of financial institutions, asking the secondary school students to match functions performed by an institution with its name unfortunately, it was the National Bank of Poland that appeared to have been known the least by those taking the test. In secondary schools a mere 57% of students correctly identified the functions it performs. Banks (as such), being in the second position, are also of little knowledge to the students (73% identified their functions correctly). The above is one more example proving insufficient knowledge of banking system that might result from low level of financial education.

The last module examining economic-financial competences of the youth concerns economic terms. The tasks for students were to determine their knowledge of the terms and concepts classifying them into three categories: I know and I understand, I know but I do not fully understand, I do not know . The average number of terms that a secondary school student knows and understands amount to 10.4 out of 19 provided. The best known and understood terms were: a bank, a pension, credit and a loan. A dividend, a deficit as well as GDP proved to be the least understood terms for the students. Despite the fact that the level of banking system knowledge is relatively low, the knowledge of finance is quite large, although its practical application is still far from perfect. Insufficient knowledge of macroeconomic terms is another evidence for justified inability of a teacher to teach and explain them to students within 60 teaching hours.

Reasons for low level of financial education

Students of secondary schools, in the NBP researches, indicated that the subjects of “Rudiments of Entrepreneurship” and “Knowledge on Society” taught at secondary level was their pioneer experience in these areas. Over 60% of them declare that classes in the two subjects were what they liked or pretty liked. It was a teacher’s lecture that was a dominant way of teaching. Even though

students would very much liked to be more actively involved in teaching/learning process, other than the lecture methods are rarely used. Other factors impacting the level of economic competences of the sample researched are presented in Table 4.

Table 4. Factors impacting economic competences

	VI form of primary school	III form of pre-secondary school	Last but one form of secondary school
Age	x	x	x
Size of place of residence	x	x	
Educational background of mother or other foster parent	x		
Frequency of talks and discussions with parents	x	x	
Advancement in making use of finance	x	x	x

Source: NBP (2014).

It should be noted that there are numerous factors influencing education of school children in the six form of primary school, therefore it is worthwhile to popularize financial education since early childhood. In all types of schools economic competences were much influenced by the level of advancement in making use of finance. Therefore, while popularising financial education it is worth encouraging the youth to holding a bank account, which teaches its holder both saving and spending financial means, thus influencing economic development. According to the World Bank data, in the 2011 in Poland only 48% of the young aged 15–25 were bank account holders, comparing with 51% in Hungary and 56% in the Czech Republic. Our result is comparable with the one of Ukraine (46%). On the other hand, there has been an upward trend in this area with 64% of youth being account holders in 2014. What contributed to the rise in the number might be stiff competition and competitive offers within banking system in Poland and educational campaigns conducted by, i.a. the National Bank of Poland and Kronenberg Foundation.

Moreover, family factors have also and impact upon financial education, and it is the young who initiate discussions on finance and economics with their parents at their family homes. Therefore, it is first of all family that allows the children to find their way in the field of economics and finance. One of the major conclusions from the NBP research is the statement: “Children are exceptionally observant

and they easily absorb basic information concerning household budget, allocating financial means, etc.” (NBP, 2014) the findings of the research proved that parents encourage children to saving money, however, they do not talk with the kids about finance, economics or economy. Almost a half of parents lacks confidence in the area of finance and economics, and three out of four parents expect support in this respect. In such a situation school still remains the major source of financial education – 60% of students of secondary schools declared that classes at schools are of very significant or significant impact on their economic knowledge. As little as 31% consider a substantial influence of their interests on economic and financial competences which proves that knowledge in this area is not treated seriously enough. However, almost 80% of secondary school students are aware of the importance of the competences in everyday life. However, within this age group the awareness does not translate into the willingness to learn. A mere 31% of them want to learn how to save money, and 11% how to use internet banking. Already in the early 2000s it was proved that financial education impacts the amount of savings, thus wanting to increase the rate of return from the savings made, it is necessary to increase outlays on economic and financial educational process of the young (Bernheim et al., 2011).

The NBP researches proved that teachers of both “Rudiments of Entrepreneurship” and “Knowledge on Society” are well prepared to running classes. Majority of them have university educational background in this field. Yet, the research findings reveal that the teachers are insufficiently involved in additional activities in the area of economics (such as interest circles, extra classes, etc.) as only 17% of the teachers surveyed had extra classes in “Rudiments of Entrepreneurship”.

Under the Directive of Ministry of National Education of 27 August 2012 on general education in various types of school since the 2012/13 students have been able to choose classes in “Applied Economics” with the syllabus including 21 items divided into 4 groups:

- planning students’ project of economic specificity,
- market analysis,
- organisation of the project,
- evaluation of the results of measures undertaken.

It might seem that “Applied Economics” should include such elements as: micro-and macroeconomics, accounting or banking. Unfortunately not a single element in the syllabus concerns the above areas. Thus the name of the subject proves to be even more peculiar. In the syllabus the main focus stays on analysis and accomplishment of students’ projects (Dąbrowski, 2011). Considering the syllabus content, there seems to be an opportunity of moulding entrepreneurial

attitudes in practice. However, the very nature of the subject requires complex competences along with methodology of teaching skills from a teacher, coupled with the ability to make use of the latest technologies and being able to motivate students (Jabłonowska, 2015). And yet it should be reminded here that it is lectures that are a dominant way of running classes. Still from another perspective, the “Applied Economics” syllabus content is to some extent convergent with the one of “Rudiments of Entrepreneurship” and leaves no room for eradicating missing abilities within areas of finance and economics. The syllabus itself does not alter the attitude of students to financial education, either.

In literature numerous concepts of how to improve educational process can be identified. What impedes their introduction is insufficient layouts on education that have been still reduced following the financial crisis. According to the Eurostat data the 2012 education spending in Poland stood at 4.9% of GDP and were lower than outlays on education in such countries as Ireland, Malta or Cyprus.

Table 5 presents the proposals of improvements to educational process and developing competences in the area of economics and finance in secondary school that could contribute to increased effectiveness of teaching.

Table 5. Deficit areas in developing economic-financial competences

Author	Activities to be improved
Iwanicz-Drozdowska, 2013 Błądowski, Iwanicz-Drozdowska, 2007	Making use of financial crisis conclusions while enhancing financial awareness and promoting cashless transactions in order to improve the efficiency of economy.
Conclusions from this article and NBP research, 2014	Increasing pressure on the aspect of personal finance management and shaping financial awareness as included in the syllabus.
Wachowiak, 2011	Introduction of modern learning methods i.e.: e-learning.
OECD, 2005	Treating financial education as a long-term factor of economic growth.
Lusardi et al., 2010	Enhanced involvement of parents in financial education of their children.
Danilewicz et al., 2006	Co-operation of schools with private sector and strengthening practical aspect of developing economic-financial competences.

Source: the author's own discussion.

Educational projects financed by the National Bank of Poland should be both positively perceived and appreciated. Such programmes include, among

others, financing entrepreneurship olympiad, other competitions and funding scholarships, running and internet educational services and setting up the Sławomir Skrzypek Money Centre of the NBP. Also, as many as 167 initiatives were undertaken in the field of economic education by the Association of Polish Banks. On top of that, the data of the World Bank confirming a positive trend in awareness of banking system functioning among Poles aged 15–25 are also optimistic. Thus, it should be hoped that the projects, programmes and other undertakings are to be continued as they help towards popularising the financial education among the youth.

Conclusions

Being a member of society, using cash only to settle payments impedes nowadays personal finance management of and individual and does not allow them to identify threats connected with products offered by banks and other financial institutions. Although in Poland the knowledge of banking system has been enhanced within the past few years as confirmed by the World Bank data, Poland is still outranked by such countries as the Czech Republic or Slovenia. In order to popularise products and services on banks' offers, special priority should be given to economic and financial education of the youth and notably secondary school students.

The analysis of findings of the researchers done by the National Bank of Poland confirms that economic and financial knowledge of the youth is insufficient and its practical application is non-existent. Economic competences are more often used as a tool in personal finance management than in understanding economic processes. However, the research findings prove that the economic competences and skill are far from perfect since only 25% of secondary school students are able to calculate interest from a deposit. Comparing results of the test financed by the NBP with the ones of the maturity exam it is apparent that the level of financial economic knowledge is lower than the Polish or English language one.

Financial education of secondary schools students, consider insufficient to exist within the contemporary society, results from a low status of the school subject "Rudiments of Entrepreneurship" and only 60 teaching hours for the subject to be taught. Lecturing on it should be supported by active methods involving the school students. It is apparent these days that it is case study that is one of the best methods to educate economists and managers. Therefore, case study and analysis should be a method adopted while teaching "Rudiments of Entrepreneurship". Students then would be able to both depicts and analyse

any necessary information to be successful at problem solving (Jabłonowska, 2015).

Moreover, economic-financial education should also focus on the aspect of making savings for a future pension. The education concerning pension system is reflected in the growth in the amount of savings, which – in turn – triggers economic growth through the ultimate tendency to making the savings. Increased spending on the development of the youth economic and financial competences translates into the development of the culture of making savings and rational management of spending, which could be treated as a remedy for financial crisis.

Moreover, it is necessary to agree with the European Commission stating that the financial education is the most effective way of enhancing the position of a consumer (the European Commission, 2007). However, being effective the process is not a short-term one and the effects might be tangible and measurable within at least several years following the spending made.

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