

A STUDY ON COMPREHENSIBILITY OF AN INFORMATION BROCHURE BY THE NATIONAL TAX AND CUSTOMS ADMINISTRATION FOR SECONDARY SCHOOL STUDENTS IN THE CITY OF SZÉKESFEHÉRVÁR

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ABSTRACT

Training for tax awareness is not simply an issue of education; it must also involve developing and improving trust and cooperation between citizens and authorities (including the state) by way of communication. Research has proven that teaching tax-related knowledge can drive positive changes as it will shape attitudes and promote compliance. This study focuses on the effectiveness of programmes aimed at improving compliance and targeting secondary school students in Hungary. The authors conducted an experiment of taking pre- and post-measurements involving 331, 9th and 11th grade students at two secondary schools in the city of Székesfehérvár, a county seat, to find out what initial knowledge the target group had and to what extent an information brochure by the National Tax and Customs Administration (NAV) has contributed to improving that knowledge. The authors have found that NAV communication on taxation has reached the students participating in the experiment to a limited extent only; furthermore, some parts of the information brochure published by NAV for secondary school students was difficult to understand. Based on their findings, the authors present alternative proposals that can promote the improvement of tax compliance of secondary school students with particular attention to a revision and reconsideration of the methods of communication and knowledge transfer.

JEL codes: A21, D83, G53, M40, M48

Key words: tax compliance, knowledge management, education, communication, secondary school

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1 INTRODUCTION

The countries of the world make efforts to increase their income needed for sustainable development. Our time is characterised by fast political, economic and social changes you can also perceive in the changes of global tax systems. Most countries work hard to improve international tax compliance. Developing and modernising tax policy is key. As part of it, tax awareness plays an important part. The goal is to curb tax evasion and fight illegal activities. Several countries have launched initiatives to strengthen tax awareness. Their most striking feature is the transformation of attitudes so that tax authorities tend to regard taxpayers as partners and “allies” rather than obliges in a subordinated position.

The Hungarian government has also realised that taxation is the most frequent point of contact between citizens and the state, so taxpayers will assess how well a government operates in line with their experience gained in the course of tax payment. In addition, it is a fact that the financial and taxation knowledge of the Hungarian population, including the young generations, is far from satisfactory. Therefore, the Hungarian government has designed a strategic initiative aimed at improving financial awareness, which was adopted in Government Decree No 1919/2017 (XII.8.). In the following step, the National Bank of Hungary launched an educational programme. As improving the financial awareness of the Hungarian population had been presented as a public policy objective by the Government, NAV also built it into its next strategic plan. As part of its tax awareness programme, NAV is making efforts to achieve that citizens should not only be aware of the rules of taxation but also grasp their purpose and benefits. To achieve the goal, in addition to educating and supporting the adult population, NAV also intends to enhance the relevant knowledge of children and young people shaping their attitudes to tax payment at the same time. However, in order to implement it successfully and efficiently, you need to examine how much the form, and language of and the channels used for knowledge transfer are suitable and applicable to promote tax awareness. You can regard the process as a form of knowledge management, since tax-related knowledge transfer covers both explicit and implicit knowledge while it targets both adults and youth, also, its goal is beneficial as citizens will gain self-confidence and become more self-conscious.

This study intends to describe the major concepts related to financial and tax awareness, further, it presents a wider international context making use of earlier research findings to help readers understand the position of the system operating in Hungary. A review of the relevant literature on knowledge transfer and knowledge management leads readers on to the knowledge sharing strategy of the National Tax and Customs Administration (NAV). Finally, the study provides details of the objectives, methodology and findings of the research.

2 LITERATURE REVIEW

2.1 Financial awareness

Financial literacy is a complex idea involving the knowledge and understanding of financial definitions and products, the responsible management of finances, risk assessment and consideration, well-founded decision making as well as increased proficiency and proper use of the information available (MNB, 2008). The degree of development of financial literacy in a society expresses how much the population of a given country knows the available products, or how much they can find their way in the labyrinth of the world of finance. If it is low, it will have a major impact on both the micro- and macroeconomic environment. (Béres, 2013).

Households and enterprises with high financial literacy usually do not make, or rarely make financial decisions that cause them a disadvantage (Zhang–Chatterjee, 2023). Therefore, they can set up a more stable environment for themselves, their families and enterprises (Kuchciak–Witkorowicz, 2021). Children growing up in such households have a better chance to accept and follow their parents' example, as they can see and experience the process of finance management (Livingstone et al., 2019; OECD, 2024; Sansone et al., 2019).

Klapper et al. (2012) stated that a micro-economy having a high level of financial literacy will create a macro-economy relying on more secure foundations. In other words, the higher the level of financial literacy in a society, the more stable its economy will be, the more savings it will make and its budget will be built on a stronger foundation (Klapper et al., 2012). Still, it is a delicate balance, as financial literacy has an impact on the economy while the economy exerts its influence on norms and notions (Lone–Bhat, 2022).

2.2 Tax awareness

A prerequisite of tax awareness is that taxpayers should know, understand and accept the necessity of and reasons for paying taxes so that they comply with the relevant obligations voluntarily (Gábos et al., 2007). Responsible taxpayers submit their tax returns on time and have no arrears going back to years (Pandapotan–Tjen, 2018). In their study Pandapotan–Tjen (2018) refer to a paper by Soemarso (2007), in which he supports the view that non-payment of taxes is primarily due to the lack of information and emphasizes that a higher degree of knowledge can mitigate tax shortfall.

Methodologies set out by the Organisation for Economic Co-operation and Development - International Network on Financial Education (OECD-INFE) over

the past years have proven that tax awareness is one of the competencies of financial literacy (European Union / OECD, 2023; OECD, 2016, 2019). Taxes are indispensable and unavoidable in a financial environment and you all meet them during your life (Lusardi–Messy, 2023). Mature tax awareness means individuals comprehend why taxes are important, they know tax rules, they understand how and when to submit tax forms and tax returns and they are also aware of the consequences of negligence (Taing–Chang, 2020). Taxation in Hungary is built on the submission of tax returns, therefore, the majority of the income of the central budget is subject to voluntary compliance. That is why the improvement of financial literacy and tax awareness is of key importance (European Union / OECD, 2023).

2.3 Finances from a kid's perspective

It is beyond doubt that access to jobs and social integration cannot materialize if people do not know and understand basic financial processes. It is in line with the definition by Grifoni–Messy (2012) as “an indispensable skill of our time”. Some elements of financial literacy can be developed easily but some of them are less easy to grasp (Csiszárík–Kocsis–Garai–Fodor, 2018). The former covers topics that are relatively easy to shape through education and training (such as financial knowledge, sets of rules or concepts). The more difficult part of financial literacy is its “culture”, i.e., “Culture means the human attitude to objectification, in other words, to the “work of humans”, the world as created and shaped by humans” (Vitányi, 2002:721). Accordingly, culture is an elusive concept. It covers all the norms, views and values seen and learned in relation to tax awareness (Alexander et al., 2023). It is an attitude received from children's parents, their immediate surroundings or from their offline or online environment. It is really difficult to be changed as it has been built into a person's character (Agnew et al., 2018; Koh–Lee, 2010).

Koh–Lee (2010) tried to find out how much students' financial views and decisions were influenced by their families and surroundings. The research has proven children's attitude is highly defined by the family (parents) pattern. Utkarsh et al. (2020) have also found a positive connection between finance-related talks with the parents and the degree of financial literacy. Side by side with parents, educational institutions and fellow students exercise major influence on young people. Media is the third factor of influence. Social media sites, online content-sharing services and other media applications are powerful. In Europe, access to the Internet has been declared indispensable for education, work, leisure and social involvement (EUROSTAT_b, 2023). Surveys have shown that approximately 90% of youth in Europe and the USA use the Internet daily (EUROSTAT_a, 2023;

Psyma Hungary, 2020; UNICEF, 2020). So, governments need to pay attention: if they want to develop the attitude of the population including youth below 18 and improve awareness in a supportive way, they must design teaching materials for three target areas (parents, schools and internet) so that their communication could reach every level. In doing so they also need to consider that young generations manage, select and learn information in a way their elders are less familiar with (Szymkowiak et al., 2021).

2.4 Surveys and findings of tax awareness

A number of organizations monitor the financial improvement of children, students, youth and young adults; in addition to the OECD, for instance, Money Compass and Social Research Institute Plc (TÁRKI) { Gábos et al., 2007; OECD, 2024; Péncziránytű Alapítvány, 2015}. Political decision makers globally address their citizens' financial literacy as it is of key importance for participation in the global economy and labour market. The relevant skills must be developed to achieve economic recovery and to establish a stable global economy. It is also important from the aspects of youth unemployment and gender equality (OECD, 2019). A survey by OECD–INFE has shed light on a topical issue of today, i.e., the financial skills of the adult population of the countries affected, including Hungary, are rather modest, to put it politely (OECD/INFE, 2020, 2023). Financial literacy scores calculated and identified using the OECD/INFE scoring system is to measure basic financial skills, behaviour and attitudes with a maximum value of 21. It means an individual has acquired basic financial concepts and can manage their finances consciously and prudently. The results of the survey are quite dismal: adult Hungarian respondents reached a score of 12.7 out of 21. Hungary has underperformed there. Hungarian respondents' knowledge of finances is low, and they are rather inflexible, so everyday finances can cause them significant stress. Over the past years, some research has focused on whether there is a correlation between tax awareness, the level of financial skills and compliance with tax payment. Among others, Nguyen T.T.L. et al., (2024), and Amin et al., (2022) have proven the existence of a correlation between the level of tax awareness and compliance with tax payment, which indicates that as long as Hungarian taxpayers' financial literacy level remains under average, it may have an impact, among others, on how tax revenues evolve.

OECD conducts a survey on the financial skills of 15-year students as part of the PISA survey every second or third years. Although it does not directly measure tax awareness, it can offer relevant background information about the financial literacy of youth. 20 countries including Hungary took part in the last survey conducted in 2022. According to the results, Hungary took place 10 out of the 20

countries surveyed with only 8.6% of Hungarian respondents demonstrating a high level of tax awareness and solid tax-related skills.

Considering the local results of under-average finance and taxation skills in this country, the authors analysed if the instruments of knowledge transfer used by NAV are suitable for the effective transfer of tax-related knowledge. The study focused on knowledge transfer including its methodology and success rate.

2.5 Knowledge management

Knowledge management, in fact, is a business management method with its main objective of ensuring the management, development and flow of collective knowledge as it is the most valuable asset of an organization (Davenport et al., 2001). However, the recent fast scientific and technological development and social changes have opened up new perspectives, they have expanded the concept by crossing over previous boundaries. The modern methods of information and innovative knowledge transfer have penetrated all spheres of life and underline a social need so that all information and knowledge should be available (Sedziuviene–Vveinhardt, 2009). It should be noted, however, that the availability of knowledge does not indicate that knowledge transfer has actually been achieved (Tomka, 2009; reference by Bencsik, 2024). The literature defines several different models of knowledge management with knowledge transfer as one of their shared points (Bencsik, 2024). This paper focuses on the methodology and effectiveness of a process of knowledge transfer implemented at social level.

2.6 Knowledge transfer

Knowledge sharing means both the transfer and the exchange of factual knowledge and experiences, which are the cornerstones of knowledge management (Bencsik, 2024). Although knowledge management is a management tool primarily used to manage the knowledge existing in companies and organizations (Bencsik, 2024), the transfer of tax-related knowledge and the development of tax awareness simply means that an information package is transferred, managed and continually updated (Zsótér–Nagy, 2012). Public administration owns all the knowledge required so that citizens could properly comply with their tax payment obligations. Its effective transfer is key for the national economy so as to be able to achieve its goals and ensure its tax revenues. It is in the interest of public administration to allow its citizens to have this knowledge so that they could use it effectively, build it into their lives, activities and behaviour. With reference to knowledge transfer, you cannot neglect the specific features and learning capabil-

ities of different generations. Some studies have proven that generation Z lacks the ability of maintaining long-term attention, their concentration skills are moderate and they are typically good in carrying out short-term tasks only – although it can change depending on the type of the task and the environment (Hammad, 2025; Rideout et al., 2010; Vizcaya-Moreno-Pérez-Canavera, 2020) . According to them, the members of generation Z find it hard to concentrate, their attention is easily diverted (Williams, 2019). It should also be noted that most students of generation Z are active users of different technological devices for their studies. It means that digital devices including laptops, smart phones and applications are an organic part of the learning process for them (Daugherty-Hoffman, 2013). They can learn faster by observation and repetition than by reading or listening to Power Point presentations (Shatto-Erwin, 2016).

The National Tax and Customs Administration (NAV) has set out its programme of tax awareness to develop the tax awareness of the population including secondary school students. The information brochure analysed in this study is part of the above programme. The next chapter is to present the methodology and communication of NAV to increase tax awareness.

3 A STUDY ON THE COMPREHENSIBILITY OF AN INFORMATION BROCHURE BY THE NATIONAL TAX AND CUSTOMS ADMINISTRATION

A complete rearrangement of the organizational structure of public administration was launched in Hungary between 2010 and 2014 and has been ongoing ever since. The paradigm shift has brought about a new approach; the tax and customs administration has changed its communication both with respect to its targets and its style. Promoting tax awareness has become a key pillar of the currently available NAV strategy (Nemzeti Adó- és Vámhivatal, 2021)^{2,3} Nevertheless, educating the future generations for tax awareness did have an important part to play in the previous period too.

Tax-related learning materials are mostly part of the curricula of institutions offering specific education in economics (vocational secondary schools of economics and institutions of tertiary education). So NAV regularly prepares informational materials for the purpose (National Tax and Customs Administration,

2 The strategy of the National Tax and Customs Administration for the period 2021-2024 is available on the following link: <https://nav.gov.hu/kiadvanyok/strategia-2020-2024./strategia-2020-2024>.

3 The organisational strategy for the next period of 2025-2030 was not yet available on the date this study was completed (08.02.2026).

2025b) targeting all secondary schools. Using them, the county directorates of NAV deliver informative presentations at different secondary schools. Students in their final year are the primary target group, although there has been a shift to involve primary-school kids as well. Tax rules are also communicated to young generations under the aegis of trade centres, job fairs and festivals or at the events of Pénz7 [money week] (Foundation “Money Compass” annually). Comprehensibility and contacts with the media are also key. NAV is active in the media and communications. As part of that, the Administration focuses on issuing press releases, information materials, and complies with requests for interviews. Measures applied to penalize deliberate tax avoidance are explained and “round-table talks” are also held in addition to traditional methods (National Tax and Customs Administration, 2024, 2025a).

4 RESEARCH OBJECTIVES

There are major efforts today to ensure secondary school students become familiar with the tax system, its basic concepts and rules. This study wanted to find out how much NAV is able to transfer information via the information materials produced specifically for students.⁴ The study covered the tax related knowledge of 9th and 11th grade students. It was conducted through surveys made at two different dates: first before and then after knowledge transfer had been made.

5 RESEARCH METHODOLOGY

Considering the research objectives and hypotheses, the authors used pre- and post-measurements. They analysed the written version of the latest information session (a brochure) for secondary school students by NAV primarily from the aspect of comprehensibility. It was selected because it covers topical tax related knowledge and its layout meets the expectations of our time. The brochure includes a lot of information also covering topics that are less relevant for this study (for instance, rules regarding employment abroad), so those parts were omitted from the questionnaires (*Annex 1*). In order to put forward recommendations on promoting clarity in the NAV brochure, the authors had also prepared another, redone version of it, which was used to study the effect of the different changes

4 The information brochure “On taxation for students” published by the National Tax and Customs Administration in 2024 is available on the following link: <https://nav.gov.hu/pfile/file?path=/ugyfeliranytu/fiataloknak/diakevek/adozasrol-diakoknak>.

made (*Annex 2*). The two versions are identical regarding their content, however, there are differences (the order of the topics, use of terms, language, higher number of pictures, illustrations and visual effects). The ideas were to underline how important the differences are from the aspect of clarity and successful information transfer. In the redone brochure, among others, legal texts were replaced with pictures or pictograms while certain processes were illustrated instead of verbal explanation. Also, significantly less information was presented on any one page.

The authors visited secondary schools in Székesfehérvár. To ensure the homogeneity of the sample, they targeted all three school types. They asked 9th and 11th grade students in a high school, a technical high school and a vocational secondary school. (11th is the last grade at vocational secondary schools, so after that students may appear on the labour market, that is why that grade had been selected). The survey took place as part of the classes in March 2024 involving two schools. They were High School “Vasvári Pál” and Technical High School and Vocational Secondary School “SzC Árpád” in the city of Székesfehérvár. Altogether 143 high school students and 188 students receiving technical training (68 from the vocational secondary school and 120 from the technical high school) answered the questions. Data collection was conducted in 4 classes of the vocational school, 6 classes of the technical high school and 5 classes in the high school. The clarity of two information brochures (the original, prepared by NAV and the redone version) was studied, therefore, the sample was divided into two parts, a base and a control group.

The clarity of the information materials was measured by completing a questionnaire of 21 questions twice (before and after reading the brochure) (*Annex 3*). The first completion of the questionnaire recorded the students’ existing knowledge, while the added value of the brochures appeared after the second completion. The content of tests measuring students’ knowledge was closely connected to both the original and redone versions of the brochure

In the first step of data collection, the questionnaires were completed. Next, the base groups were given the original while the control ones the redone version of the brochure. Finally, another test was completed to close down the study. In that way, the authors could analyse the effect of the differences between the two versions. The findings were analysed using the software IBM SPSS Statistics v.23 applying the method of covariance analysis of repeated measurements.

6 RESEARCH FINDINGS

6.1 Characteristics of the sample analysed

The distribution of the sample by age and school type is presented in *Table 1*

Table 1
Distribution of sample

School type	9 th grade	11 th grade
Vocational secondary school	34 students	34 students
Technical high school	38 students	82 students
High school	87 students	56 students
Together:	159 students	172 students
	331 students	

Source: own design, 2024

Group homogeneity was an important criterion for selecting the sample. With regard to the base and control groups, there is no significant variation in distribution either by school type or grade (*Tables 2 and 3*)

Table 2
Distribution of sample in base and control groups by grade

		Group		Total
		Base (A)	Control (B)	
What is your grade?	9 th grade	82 students	77 students	159 students
	11 th grade	85 students	87 students	172 students
Total		167 students	164 students	331 students
Chi-square				6.95%

Source: own design, SPSS, 2024

Table 3
Distribution of sample in base and control groups by school type

		Group		Total
		Base (A)	Control (B)	
What type of school do you attend?	vocational secondary school	36 students	32 students	68 students
	technical high school	62 students	58 students	120 students
	high school	69 students	74 students	143 students
Total		167 students	164 students	331 students
Chi-square				7.72%

Source: own design, SPSS, 2024

6.2 Key findings

The survey has revealed significant difficulties, and deficiencies as well as areas to be improved. Back testing how much the online and offline contents aimed at promoting tax awareness among students are disseminated and popular was the focus point of the research. Aggregating the answers given to question 3⁵ has revealed that out of the total of 331 no more than 20% of the students (66) have come across any posts, adverts or information by NAV so that they could remember them. 77% of the 66 (51 students) could name where they had met the above content⁶. That is 15.45% of all respondents. Accordingly, one can say the means and methods of communication currently developed and applied by NAV are ineffective from the aspect of the transfer of information.

Question No 16⁷ was aimed to find out how much those asked were familiar with the rules of the forms of employment applicable to students. 45.73% of the sample gave a correct answer, while 20.97% of the students gave the correct answer to question No 17. In total, less than half of the students answered correctly the questions about the rules relating to them. The result questions the appropriateness of the quality of communication applied for knowledge transfer. It is significant,

5 Question No 3: Have you ever come across any information, talk or video about the National Tax and Customs Administration (NAV) or about taxation?

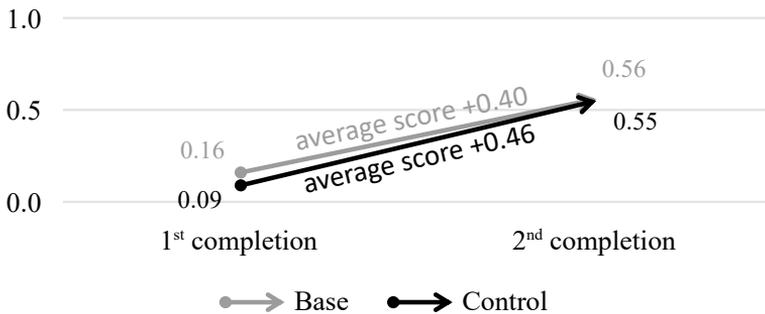
6 Question No 4: If you answered "yes" to the previous question, could you please describe where you saw it (them).

7 Question No 16: Which form of employment applies to students only?

because NAV makes continued efforts to inform students about the rules of student employment.

With respect to the effectiveness of knowledge transfer, the difference between the two versions was evident where information was visually presented, i.e., compared to the NAV brochure, the redone version used much larger and colourful pictures and captions. In addition, it did not use technical terms, but it presented simple, everyday examples to transfer the information (for instance, pictures were applied to illustrate how tax revenues are used, or the concept of VAT was explained via the price of a popular cookie). Question No 6⁸ related to the mobile application of NAV. In this case the control group performed significantly better than the base group at the second completion. The summary average of the scores achieved by the base and the control groups was sig. 0.003. The change between the two completions is illustrated on *Figure 1*. The original and the redone brochures refer to the mobile application differently; there is a higher number of pictures about it in the redone version and visual references are more emphatic.

Figure 1
Evolution of answers given to question no 6 and the difference between them (sig. 0.003)



Source: own design, 2024

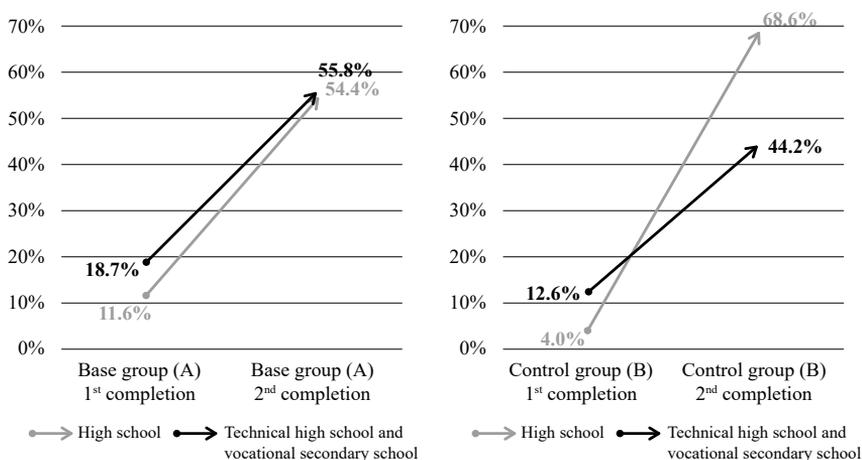
Respondents studying at the different schools have produced significantly different results. After reading both the original and the redone information brochure, the base and control groups made up of the students at the vocational secondary school and the technical high school achieved similar results both during the first and the second completion. However, students at the high school performed

⁸ Question No 6: Are you aware that a NAV mobile application is available?

much differently. In other words, compared to the base group, the members of the control group had given significantly different answers depending on the school type of the respondent (vocational secondary school, technical high school or high school).

Analysing the results made it evident the results of the vocational secondary and the technical high school were similar but differed from those given by high school students. So, the authors divided the data into two rather than three groups and generated the variables accordingly (Figure 2). One set consisted of the results of the tests completed by high school students while the other one had the scores of the students at the vocational secondary school and the technical high school. Learning about those differences could help NAV to implement a more accurate and effective informative programme, which would greatly promote the improvement of tax awareness among the members of the secondary school generation.

Figure 2
Evolution of the answers to question no 6 in percentages by school types
(sig. 0.019)



Source: own design, 2024

The next area to be studied was about the “input” knowledge of grade 11. Assuming the age group might enter the labour market in the near future, the general, basic knowledge of 11-graders should be given special attention both regarding taxation and the totality of social issues. It is to be monitored, surveyed and efforts should be made to make up for any shortcomings. Before reading the information brochure, the questions below received the lowest and the highest numbers of correct answers on the first completion:

Table 4
Questions with the lowest number of correct answers by 11th graders on first completion

Questions less than half of the respondents could answer correctly		
	Question	Ratio of correct answers
6.	Are you aware that a NAV mobile application is available?	15.12 %
17.	Can a 15-year-old student take a weekend job during the school year?	22.09 %
12.	Do you know how/where you have to pay taxes?	30.23 %
13.	What do you have to include in your personal income tax return by May 20 of every year?	37.21 %
14.	Why is it important that everybody should pay taxes conscientiously and complying with legal provisions?	43.60 %
21.	Do you know what the so termed “customer portal” is?	44.77 %

Source: own design, 2024

Table 5
Questions with the highest number of correct answers by 11th graders on first completion

Questions correctly answered at the highest rate		
	Question	Ratio of correct answers
8.	What does “tax” mean?	92.44 %
15.	What does “customs” mean?	87.79 %
10.	What is NAV responsible for?	82.56 %
11.	What do you mean by a natural person’s income?	70.35 %
19.	Why should everybody be part of Social Security?	65.70 %

Source: own design, 2024

Respondents in grade 11 provided the lowest number of correct answers on the first completion of the knowledge assessment questionnaire to questions relating to student employment and PIT returns. It is important for setting out NAV communication strategy targeting students. The government’s tax and customs administration has already provided available information on the above topics, but its success or comprehensibility seem to be questionable.

The survey also covered what kind of opinions about and experiences with NAV respondents had gathered in their environment. That is important as the image of NAV they had established may define their approach to taxation or other relevant areas linked to NAV. In the survey, 26% of respondents said the opinion about and experience with NAV they had heard was rather negative, 37.8% said it had been neutral 3.6% had heard positive views. 31.7% of the respondents knew nothing about NAV and had no opinion. So, one can state the majority of the students asked (73.1%) had formed a good or neutral opinion about NAV or had no opinion at all. That can be promising with respect to how the communication targeting them should be designed, since you can shape an attitude or opinion easier if the starting point is either positive or neutral.

Question 14⁹ was directed to surveying the existence of tax awareness. Although all the statements to be marked are true, only one answer will reflect if a student really understands the meaning of “conscientiously” in the context of tax payment.

89.18% of the respondents returned a meaningful answer to the question. The distribution is presented in *Table 6*.

Table 6
Ratio of answers to question 14

Why is it important that everybody should pay taxes conscientiously and complying with legal provisions?	Ratio of answers
Because you get a high amount fine if you don't pay taxes.	11,37 %
Because if you are in arrears with taxes, you aren't sure to get a bank loan when you need it.	14,07 %
Because the country mostly manages its economy using the taxes paid.	40,18 %
I don't know	23,56 %

Source: own design, 2024

Slightly more than 40% of the respondents marked the most optimal answer from the aspect of tax awareness.

The questionnaire included 9 questions about the actual basic definitions linked to taxation that NAV had touched upon using technical terminology or quoting legal provisions in its brochure. The ratio of correct answers given to those

⁹ Question No 14: Why is it important that everybody should pay taxes conscientiously and complying with legal provisions?

questions in the course of the first and second completion has risen by 8.43% on average (*Table 7*).

Table 7
Ratio of correct answers given to questions related to factual knowledge and its changes

	Question	Ratio of correct answers on first completion	Ratio of correct answers on second completion	Changes
6.	What does the term “charges levied by state at national level” mean?	55.59%	75.53%	+ 19.94%
7.	What does “tax” mean?	89.43%	84.29%	- 5.14%
10.	What is NAV responsible for?	77.34%	84.89%	+ 7.55%
11.	What does “income” mean?	64.95%	70.39%	+ 5.44%
12.	What does “customs” mean?	83.38%	85.80%	+ 2.42%
13.	Which form of employment applies to students only?	45.32%	61.03%	+ 15.71%
18.	What does “personal income tax” mean?	55.29%	69.18%	+ 13.90%
20.	What is the difference between gross and net income?	55.89%	58.61%	+ 2.72%
21.	Do you know what the so termed “customer portal” is?	38.37%	51.66%	+ 13.29%

Source: own design, 2024

The ratio of correct answers given to the questions focusing on tax awareness with lighter topics in the centre changed by +24.37% on average from the first to the second completion of the questionnaire (*Table 8*). It is obvious it is easier to understand and internalise everyday questions related to taxation.

Table 8
Evolution of correct answers given to more practical, everyday questions on tax awareness

Question	Ratio of correct answers on first completion	Ratio of correct answers on second completion	Changes
Are you aware that a NAV mobile application is available?	12.08%	52.57%	+ 40.48%
What does the state spend the taxes paid on?	54.98%	75.53%	+ 20.54%
What is NAV responsible for?	77.34%	84.29%	+ 6.95%
Do you know how/where you have to pay taxes?	32.63%	84.89%	+ 52.27%
Why is it important that everybody should pay taxes conscientiously and complying with legal provisions?	40.18%	59.21%	+ 19.03%
Why should everybody be part of Social Security?	57.10%	64.05%	+ 6.95%

Source: own design, 2024

The ratio and evolution of the correct answers suggest that reading the parts of the brochure on factual knowledge was less effective than those lighter ones on taxation or tax awareness.

7 LESSONS LEARNT AND RECOMMENDATIONS

The selection of *the appropriate channel* is indispensable to achieve effective knowledge transfer. The tax system or taxation as such is not part of centrally determined school curricula, so they are usually discussed at courses aimed to develop the erudition, skills and capabilities of students. On the other hand, those courses are not followed by tests or exams, so the students' interest in them is moderate. In the course of the survey, a mere 20% of the 331 students asked said they had already come across events, digital content or information related to taxation or to NAV. This proves that even if there were some lectures or talks delivered at schools, they made little imprint in the students. In addition, one should differentiate sharing factual knowledge from shaping an attitude. Transferring a lot of "dry" knowledge related to taxation would require a serious and highly disciplined environment. The findings of the survey have supported the view that the transfer and successful acquisition of tax related knowledge require

a different kind of communication and different methods than those simply sharing and understanding everyday practical skills aimed at the improvement of tax awareness (*Tables 7 and 8*). Consequently, the authors believe two different strategic directions should be set out. In addition to applying educational programs aimed at the improvement of factual knowledge, communication efforts focusing on attitude formation should also be made. Considering the communication practice of youth, the latter could be implemented on social media platforms. The style should be more informal, the channels used should be ones favoured by the generation in question or even involving well known key public actors (so called ‘influencers’). On the other hand, explaining and teaching tax related basic concepts requires concentration and time. The objective of this kind of education is to transfer knowledge (that students may need in all their lives) in such a way that it is remembered and embedded. Therefore, the education related to taxation should be organised in a school environment.

In addition to selecting an optimal channel of communication, *the methodology of information transfer needs to be reviewed*. In the course of the survey, respondents gave 8.43% more correct answers to questions relating to definitions and technical texts while there were 24.37% more correct answers relating to the easier, more practical areas. In order to ensure more successful transfer of factual knowledge, paper-based informational materials as well as the traditional types of lectures or sessions are proposed to be neglected. It is advised to employ teaching methods matching the characteristics of the generation in question (for instance, using pictures rather than text, the breakdown of large units into smaller parts, explaining technical terms in everyday language or using analogies from student life as explanation, etc.) The findings of this research have supported that in order to avoid the monotony caused by the traditional school environment you cannot change, the instruments and methods, i.e., the methods and instruments of knowledge transfer are advised to be rethought and updated. This corresponds to the statements made by Shatto–Erwin (2016), who said traditional instruments of knowledge transfer (for instance Power Point) are no longer effective for generation Z. Considering the limitations of school infrastructure, effectiveness could be increased if definitions were explained via short educational videos matching the communication characteristics of the generation targeted. Visual representation and colourful digital teaching materials rich in illustrations may promote understanding such a complex and alien body of knowledge. Nevertheless, as the topic is really difficult, the video sessions should be followed by informal talks with the participation of a teacher, lecturer or relevant expert where the questions arising can be clarified. In their study on teaching generation Z, Szymkowiak et al., (2021) have proven that the internet and technological development have transformed how young people learn, obtain and internalize information. Based

on their research findings, the authors recommend considering the design and implementation of short, illustrated videos, digital teaching materials or even teaching applications available from smart phones for the purpose of transferring tax related knowledge and financial skills.

8 RESEARCH LIMITATIONS AND FUTURE DIRECTIONS TO BE FOLLOWED

The limitations of this research need to be considered to interpret its findings. The survey was carried out involving students in Székesfehérvár only, so the findings are mainly exploratory and suitable to identify some tendencies rather than drawing general conclusions. Since the schools only gave permission to use one lesson for the survey for each class, we had 45 minutes per class. So, we had to be careful with the length of the information materials and the questionnaires. Another difficulty the authors had to face was that different technical devices were available at the different schools, so tests and information materials were paper based, further, various digital solutions could not be tested.

The limitations, on the other hand, clearly mark the direction future studies should take to further promote knowledge transfer and tax awareness with their findings. Accordingly, the communication of NAV targeting students should be studied further in the following way:

- analysing the differences by school types and students' ages as well as their effect on internalization;
- analysing the content elements and use of terminology in communication and how much it can be internalized;
- finding the communication channels liked and actually used by students and studying the activities of content producers who are popular on those channels;
- drawing up development opportunities for the methodology of teaching at schools.

The findings of this study may significantly contribute to a review and development of ways and means of knowledge transfer and communication as they are used today while they will also shed light on the importance of the topic.

9 SUMMARY

Taxation is an unknown and complex topic for secondary school students as proven by Grifoni–Messy (2012) in their study published by OECD/INFE. Reviewing the relevant literature, the authors have revealed the level of citizens' financial literacy, and the related attitudes exert a major influence on a country's economy. So, developing the financial culture of the society is really important not only for the national economy but also for the population. The literature analysed by the authors demonstrated that, similarly to Hungarian adults, Hungarian secondary school students' financial (including tax related) skills hardly reach the minimum level that could prepare them to manage their everyday financial matters and transactions confidently. The relevant literature in Hungary provides little insight into the level of tax related knowledge of secondary school students, and there are no findings by empirical research looking into the actual impact of the educational materials produced by NAV. The objective of this study was to reveal the tax related knowledge of 9th and 11th grade students, to examine the effectiveness of the relevant communication by NAV and to appraise the clarity of an information brochure produced by NAV for secondary school students aimed to develop tax awareness. The data were collected from 331 students of two secondary schools in the city of Székesfehérvár. The authors used pre- and post-measurement of an information brochure by NAV as well as a version of it redone by the authors to find their added value or the difference between their impact. It has come to light from the study that a significant part of the target group does not meet any content, information materials linked to taxation or to NAV, which leads to the conclusion that the communication methods and channels applied are not suitable. Further, the findings have reiterated the target group had very little (or incorrect) knowledge about certain actual rules of taxation related to students. It has been presented that the currently applied method of education used by the state Tax and Customs Administration (NAV) to transfer tax related knowledge is outdated and of low efficiency. Its review and improvement are justified. The materials produced by NAV for students are far from being comprehensible (too much focus on text, complex use of terminology, lack of visual components). The findings of the study have underlined that students at different school types differ in the manner they take over and internalize the information received. It has also been proven that generational differences also play an important part in the process of knowledge sharing. Ország (2018) has found the same in his study. This study offers a novel approach, since there has been no earlier empirical study in Hungary that measured the effectiveness of the instruments applied to transfer tax related knowledge. Further, it also raises the possibility of a number of future studies to provide further assistance for the preparation of strategies and success-

ful methods of knowledge transfer targeting secondary school students in the field of tax awareness.

Annex 1

Link to access the original brochure:

https://drive.google.com/file/d/1pLTL82En1azj9vTB5Fn_1GpklsCSXaSP/view?usp=sharing

Annex 2

Link to access the redone brochure:

https://drive.google.com/file/d/1_c_NU4bCMiGD4gZZxHu_LobiozEJd7Jb/view?usp=drive_link

Annex 3

Questionnaire

TEST OF TAX AWARENESS FOR SECONDARY SCHOOL STUDENTS		
T ₁	What is your grade? <i>(please, underline your answer)</i>	9. osztályos 11. osztályos
T ₂	What type of school do you attend? <i>(please, underline your answer)</i>	Szakképző Technikum Gimnázium
T ₃	Have you ever come across any information, talk or video about the National Tax and Customs Administration (NAV) or about taxation? <i>(please, underline your answer)</i>	yes no
T ₄	If you answered “yes”, please describe where you came across a NAV post, video or other information:	
T ₅	What have you heard about/seen/ experienced with NAV? <i>(please mark the correct answer with X)</i>	I've rather heard negative things about NAV.
		I've heard neutral, impassive opinions or experience about NAV
		I've rather heard positive opinion about NAV.
		I know nothing about NAV; I have no experience or opinion about it.

T ₆	Are you aware that a NAV mobile application is available? <i>(please, underline your answer)</i>	yes nem
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Please, circle the letter of the answer you believe is correct:

!!! one answer can be marked for each question only !!!

T ₇	What does the term “charges levied by state at national level” mean?	a)	It means every Hungarian citizen is obliged to pay taxes and levies
		b)	It means families must prepare a tax return every year and offer a certain part of their income to a NGO or a church community
		c)	It means church tax
		d)	I don't know
T ₈	What does “tax” mean?	a)	“Tax” is an amount of money people decide to pay into the “purse” of the country.
		b)	“Tax” is a contribution everybody must pay the government in accordance with legal provisions.
		c)	It is a fixed amount everybody must pay the government every month starting from birth.
		d)	I don't know
T ₉	What does the state spend the taxes paid on?	a)	For instance, to operate petrol stations.
		b)	For instance, to operate factories.
		c)	For instance, to operate hospitals.
		d)	I don't know
T ₁₀	What is NAV responsible for?	a)	Collecting and managing taxes.
		b)	Managing pensions.
		c)	NAV is the legislative body of the Hungarian government.
		d)	I don't know

T ₁₁	What do you mean by a natural person's income?	a)	Income means wealth.
		b)	Income means what you earn.
		c)	Income means family tax allowance.
		d)	I don't know
T ₁₂	Do you know how/where you have to pay taxes?	a)	To the Hungarian Treasury.
		b)	To the local government or to the National Tax and Customs Administration.
		c)	To the local Government Office.
		d)	I don't know
T ₁₃	What do you have to include in your personal income tax return by May 20 of every year?	a)	You have to include how much wealth your family had the previous year.
		b)	You have to include how much your total gross income was the previous year.
		c)	You have to include every year if your salary/wages have been raised or reduced.
		d)	I don't know
T ₁₄	Miért fontos, hogy mindenki lelkiismeretesen és a törvény előírásai szerint fizesse az adót?	a)	Because you get a high amount fine if you don't pay taxes.
		b)	Because if you are in arrears with taxes, you aren't sure to get a bank loan when you need it.
		c)	Because the country mostly manages its economy using the taxes paid.
		d)	I don't know

T ₁₅	What does “customs” mean?	a)	You have to pay customs on products you import into the country from abroad or export them abroad.
		b)	You have to pay customs on products manufactured in Hungary.
		c)	Foreigners have to pay customs so that they can stay in Hungary.
		d)	I don't know
T ₁₆	Which form of employment applies to students only?	a)	Job contract / employment
		b)	Simplified employment or a contract of assignment
		c)	Vocational training contract or membership in a school cooperative
		d)	I don't know
T ₁₇	Can a 15-year-old student take a weekend job during the school year?	a)	Yes
		b)	Yes, but only if the weekend is during a school holiday.
		c)	No
		d)	I don't know
T ₁₈	What does “personal income tax” mean?	a)	It is what natural persons pay on their assets.
		b)	It is what natural persons pay on their income.
		c)	It is what natural persons pay on their properties.
		d)	I don't know
T ₁₉	Why should everybody be part of Social Security?	a)	So that they have no debts to the government.
		b)	So that they could receive healthcare.
		c)	So that they could take a job.
		d)	I don't know

T ₂₀	What is the difference between gross and net income?	a)	Gross income still includes taxes, but net income does not anymore.
		b)	Net income still includes taxes, but gross income does not anymore.
		c)	An employee gets his/her gross income is cash but net income by bank transfer.
		d)	I don't know
T ₂₁	Do you know what the so termed "customer portal" is?	a)	The customer portal is a customer service where you can manage official affairs in person.
		b)	It is a service where you can identify yourself in the online space and manage official affairs online.
		c)	The customer portal is a database of the data of citizens.
		d)	I don't know
T ₂₂	Was the questionnaire difficult to complete? How could it be made easier? What do you think should be changed on this series of slides?		
T ₂₃	Please, evaluate on a scale of 1 to 5 how much the second completion was easier than the first one. <i>(1 means it was not easier at all, i.e., the second one was just as difficult to complete as the first one, while 5 means the second one was much easier to complete.)</i>		

REFERENCES

- Agnew, S. – Maras, P. – Moon, A. (2018): Gender differences in financial socialization in the home – An exploratory study. *International Journal of Consumer Studies*, 42(3), 275–282. <https://doi.org/10.1111/ijcs.12415>.
- Alexander, P – Balavac-Orlic, M. – Lymer, A. – Mukherjee, S. (2023): Further Improving Our Understanding of the Tax Awareness, Tax Literacy and Tax Morale of Young Adults. *Journal of Tax Administration*, 8(1), 193–220. <https://jota.website/jota/article/view/17>.
- Amin, S. N. – Buhari, P. Z. A. – Yaacob, A. S. – Iddy, Z. (2022): Exploring the Influence of Tax Knowledge in Increasing Tax Compliance by Introducing Tax Education at Tertiary Level Institutions. *Open Journal of Accounting*, 11(2), 57–70. <https://doi.org/10.4236/ojacct.2022.112004>.
- Bencsik, A. (2024): Tudásmenedzsment elméletben és gyakorlatban – Az üzleti stratégiától a mesterséges intelligenciáig [knowledge management in theory and practice - from business strategy to artificial intelligence] (1st edition). *Akadémiai Kiadó*, <https://doi.org/10.1556/9789636640187>.
- Béres, D. (2013): A pénzügyi kultúra – Mi is ez valójában?[financial literacy - what is it really?] Corvinus University of Budapest – *Financial Review (Pénzügyi Szemle)*. <http://real.mtak.hu/154859/> (downloaded: 10.01.2025.).
- Csiszárík-Kocsis, Á. – Garai-Fodor, M. (2018): Miért fontos a pénzügyi ismeretek oktatása a Z generáció véleménye alapján?[why is teaching financial knowledge important. opinion of the Z generation] *Polgári Szemle (Citizen's Review)* 14(1–3), 107–119. <https://doi.org/10.24307/psz.2018.0809>.
- Daugherty, T. – Hoffman, E. (2013): eWOM and the importance of capturing consumer attention within social media. 20(1–2), 82–102. <https://doi.org/10.1080/13527266.2013.797764>.
- Davenport, T. H. – Prusak, L. – Andó, É. (2001): Tudásmenedzsment.[knowledge management] *Kossuth Kiadó*, http://unipub.lib.uni-corvinus.hu/4826/1/VT_2001n11p59.pdf. (downloaded: 18.01.2025).
- European Union / OECD (2023): Financial literacy: Commission publishes joint EU/OECD Financial Competence framework for children and youth. *European Union / OECD*, https://finance.ec.europa.eu/publications/commission-and-oecd-infe-publish-joint-framework-children-and-youth_en. (downloaded: 15.10.2024).
- EUROSTAT_a. (2023): Digital economy and society statistics—Households and individuals. EU-ROSTAT https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Digital_economy_and_society_statistics_-_households_and_individuals. (downloaded: 05.10.2024).
- EUROSTAT_b. (2023): Being young in Europe today—Digital world. *European Union*, https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Being_young_in_Europe_today_-_digital_world. (downloaded: 06.01.2024).
- Gábos, A. – Keller, T. – Medgyesi, M. – Tóth, I. (2007): Adótudatosság, fiskális illúziók és az állami újraelosztással kapcsolatos preferenciák 2007-ben Magyarországon.[tax awareness, fiscal illusions and preferences linked to state redistribution in Hungary in 2007] *Tárki Társadalomkutatási Intézet*, <https://www.tarki.hu/adatbank-h/kutjel/pdf/b190.pdf>. (downloaded: 16.09.2024).
- Grifoni, A. – Messy, F.-A. (2012, April 20): Current Status of National Strategies for Financial Education: A Comparative Analysis and Relevant Practices. *OECD Working Papers on Finance, Insurance and Private Pensions*, <https://dx.doi.org/10.1787/5k9bcwct7xmn-en>.
- Hammad, H. S. (2025): Teaching the Digital Natives: *Examining the Learning Needs and Preferences of Gen Z Learners in Higher Education*. 6(2), 214–242. <https://doi.org/10.21608/tjhss.2025.346098.1303>.
- Klapper, L. F. – Lusardi, A. – Panos, G. A. (2012): Financial Literacy and the Financial Crisis. *SSRN Electronic Journal*, 03(2017–007), 54. <https://dx.doi.org/10.2139/ssrn.2038765>.

- Koh, N. K. – Lee, C. B. (2010): “Because My Parents Say So” – Children’s monetary decision making. *Procedia – Social and Behavioral Sciences*, 9, 48–52. <https://doi.org/10.1016/j.sbspro.2010.12.114>.
- Kuchciak, I. – Witkorowicz, J. (2021): Empowering Financial Education by Banks – Social Media as a Modern Channel. *Journal of Risk and Financial Management (JRFM)*, 14(3), 118. <https://doi.org/10.3390/jrfm14030118>.
- Livingstone, S. – Kardefelt-Winther, D. – Saeed, M. – UNICEF Office of Research – Innocenti. (2019): *Global Kids Online Comparative Report* (135 p.) [Research paper]. *UNICEF Office of Research – Innocenti (Innocenti Research Report)*. <https://www.unicef.org/innocenti/media/7011/file/GKO-Comparative-Report-2019.pdf>. (downloaded: 20.11.2024).
- Lone, U. M. – Bhat, S. A. (2022): Impact of financial literacy on financial well-being: A mediational role of financial self-efficacy. *Journal Of Financial Services Marketing*, 29(1), 122–137. <http://dx.doi.org/10.1057/s41264-022-00183-8>.
- Lusardi, A. – Messy, F.-A. (2023): The importance of financial literacy and its impact on financial well-being. *Journal of Financial Literacy and Wellbeing*, 1(1), 1–11. <https://doi.org/10.1017/flw.2023.8>.
- MNB (2008): Együttműködési megállapodás.[collaboration agreement] *Hungarian National Bank (MNB)*, <https://www.mnb.hu/letoltes/0415mnbpszafmegallpodos-penzugyi-kultura-fejleszt.pdf>. (downloaded: 07.11.2024).
- Nemzeti Adó- és Vámhivatal (2021): A Nemzeti Adó-és Vámhivatal 2021 és 2024 közötti időszakra vonatkozó stratégiája.[strategy of the national tax and customs administration for the period 2021-2024] *Nemzeti Adó- és Vámhivatal*. <https://nav.gov.hu/kiadvanyok/strategia-2020-2024/strategia-2020-2024>. (downloaded: 02.04.2025).
- Nemzeti Adó- és Vámhivatal (2024): Konzultációra hívja az adószakmát a NAV.[NAV calls tax experts for consultation] https://nav.gov.hu/sajtoszoba/hirek/Konzultaciara_hivja_az_adoszakmat_a_NAV. (downloaded: 29.14.2024).
- Nemzeti Adó- és Vámhivatal (2025a): Élethelyzetek adózása. [taxation in different life situations] <https://nav.gov.hu/Elethelyzetek-adozasa> (downloaded: 09.07.2025).
- Nemzeti Adó- és Vámhivatal (2025b): Élethelyzetek adózása – Diákévek.[taxation in different life situations - student years] <https://nav.gov.hu/Elethelyzetek-adozasa/diakevek> (downloaded: 09.07.2025)
- Nguyen, T. T. L. – Mac, Y. T. H. – Cuong, T. T. – Nguyen, M. T. H. (2024): The Impact of Tax Awareness on Tax Compliance: Evidence from Vietnam. *Journal of Tax Reform*, 10(2) 214–227. <https://doi.org/10.15826/jtr.2024.10.2.165>.
- OECD (2016): Skills Matter: Further Results from the Survey of Adult Skills. *OECD Publishing*. <https://doi.org/10.1787/9789264258051-en>.
- OECD (2019): Conceptual learning framework, Attitudes and values. *Organisation for Economic Co-operation and Development*. https://www.oecd.org/content/dam/oecd/en/about/projects/edu/education-2040/concept-notes/Attitudes_and_Values_for_2030_concept_note.pdf. (downloaded: 19.02.2024).
- OECD (2024): PISA 2022 Results (Volume IV): How Financially Smart Are Students? *OECD Publishing*. <https://doi.org/10.1787/5a849c2a-en>.
- OECD/INFE (2020): International Survey of Adult Financial Literacy (Policy Paper No. 39). *OECD / INFE*. <https://doi.org/10.1787/145f5607-en>.
- OECD/INFE (2023): International Survey of Adult Financial Literacy. *OECD / INFE*. <https://doi.org/10.1787/56003a32-en>.
- Ország, A. (2018): A hazai középiskolások pénzügyi műveltségi vizsgálatának módszertani kérdései. [methodological issues of studying financial literacy of secondary school students in hungary] *Prosperitas*. <https://ideas.repec.org/a/bbs/prospe/v5y2018i2p10-21.html> (downloaded: 17.12.2024).

- Pandapotan, D. – Tjen, C. (2018): Tax Awareness of the Conceptions of Tax Compliance within Surabaya Society: A Study in Surabaya, Indonesia. *6th International Accounting Conference (IAC 2017)*. <http://dx.doi.org/10.2991/iac-17.2018.4>.
- Pénziránytű Alapítvány [money compass foundation] (2015): A Pénziránytű Alapítvány által lebonyolított pénzügyi kultúra kutatás fő eredményeinek bemutatása. [key findings of a study of financial literacy by money compass foundation] *Pénziránytű Alapítvány*. https://penziranytu.hu/sites/default/files/csatorlmany/oecd_kutatasi_eredmenyek_2015_11_02.pdf. (downloaded: 19.08.2024).
- Pénziránytű Alapítvány (évente) *Pénz7: [Előadássorozat]*. [series of lectures by money compass foundation - annual Money7] *Pénz7 (MoneyWeek)*, <https://www.penz7.hu/egyutt-a-penzugyi-kulturaert.cshtml> (downloaded: 18.03.2025).
- Psma Hungary (2020): Gyermek a neten és digitális szülőség [kids on the net and digital parenthood] (Survey No. 2.; 1–22.). *Nemzeti Média- és Hírközlési Hatóság*. <https://nmhh.hu/dokumentum/224643/mediahasznalat2020rovid1109.pdf>. (downloaded: 05.12.2024).
- Rideout, V. J. – Foehr, U. G. – Roberts, D. F. (2010): Generation M2: Media in the lives of 8 to 18-year-olds. *Henry J. Kaiser Family Foundation*, <https://www.kff.org/wp-content/uploads/2013/01/8010.pdf>. (downloaded: 01.12.2025).
- Sansone, D. – Rossi, M. – Fornero, E. (2019): “Four Bright Coins Shining at Me”: Financial Education in Childhood, Financial Confidence in Adulthood. *International Journal of Consumer Studies*, 53(2), 630–651. <https://doi.org/10.1111/joca.12207>.
- Sedziuviene, N. – Vveinhardt, J. (2009): The Paradigm of Knowledge Management in Higher Educational Institutions. *Engineering Economics*, 65(5), 79–90. <https://doi.org/inzeco.ktu.lt/index.php/EE/article/view/11627>.
- Shatto – Erwin, K. (2016): Moving on From Millennials: *Preparing for Generation Z*. 47(6), 253–254. <https://doi.org/10.3928/00220124-20160518-05>.
- Soemarso, R. S. (2007): *Perpajakan, Pendekatan Komprehensif (Taxation, A comprehensive approach)* (Vol. 1). Penerbit Salemba.
- Szymkowiak, A. – Melovic, B. – Dabic, M. – Jeganathan, K. – Kundi, G. S. (2021): Information technology and Gen Z: The role of teachers, the internet, and technology in the education of young people. *Technology in Society*, 65(101565). <https://doi.org/10.1016/j.techsoc.2021.101565>.
- Taing, H. B. – Chang, Y. (2020): Determinants of Tax Compliance Intention: Focus on the Theory of Planned Behavior. *International Journal of Public Administration*, 44(1), 62–73. <https://doi.org/10.1080/01900692.2020.1728313>.
- Tomka, J. (2009): A megosztott tudás hatalom [shared knowledge is power - 1st ed] *Harmat Kiadó*.
- UNICEF (2020): How many children and young people have internet access at home? *UNICEF*. <https://data.unicef.org/resources/children-and-young-people-internet-access-at-home-during-covid19/>. (downloaded: 25.08.2024).
- Utkarsh – Pandey, A. – Ashta, A. – Spiegelman, E. – Sutan, A. (2020): Catch them young: Impact of financial socialization, financial literacy and attitude towards money on financial well-being of young adults. *International Journal of Consumer Studies*, 44(6), 531–541. <https://doi.org/10.1111/ijcs.12583>.
- Vitányi, I. (2002): A civilizáció és a kultúra paradigmái. [paradigms of civilisation and culture] *Magyar Tudomány*, 47. (108.) (6.), 720–729. https://epa.oszk.hu/00600/00691/00261/pdf/EPA00691_mtud_2002_06_720-729.pdf.
- Vizcaya-Moreno, M. F. – Pérez-Canavera, R. M. (2020): Social Media Used and Teaching Methods Preferred by Generation Z Students in the Nursing Clinical Learning Environment: A *Cross-Sectional Research Study*. 17(21), <https://doi.org/10.3390/ijerph17218267>.

-
- Williams, C. (2019): Nurse Educators Meet Your New Students: Generation Z. 44(2). <https://doi.org/10.1097/NNE.000000000000637>.
- Zhang, Y. – Chatterjee, S. (2023): Financial Well-Being in the United States: The Roles of Financial Literacy and Financial Stress. *Sustainability*, 15(5), 4505. <https://doi.org/10.3390/su15054505>.
- Zsótér, B. – Nagy, P. (2012): Our Everyday Emotions and Finances – The role money-related attitudes and materialistic orientation play in developing financial culture. *Public Finance Quarterly*, 57(3), 286-297. https://www.researchgate.net/publication/236981295_Our_Everyday_Emotions_and_Finances.

