

UNIVERSITY OF TARTU
Faculty of Social Sciences
School of Economics and Business Administration

Rodny Verner Reeder

ESTONIAN STUDENTS' FINANCIAL ATTITUDE AND BEHAVIOR BY THE
EXAMPLE OF VÕRU GYMNASIUM

Bachelor Thesis

Supervisor: MA Junior Lecturer Juta Jaani

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I have written this Bachelor Thesis independently. Any ideas or data taken from other authors or other sources have been fully referenced.

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Introduction

In order for the Estonian people to have a comfortable life, not worry about money and have a nice and enjoyable retirement without any poverty, their financial behavior and habits should be excellent throughout their adult working lives.

In 2019, 2.3% of Estonian people lived in absolute poverty and 20.7% were at-risk-of-poverty, according to Statistics Estonia (2019). Even more surprising is that as of February 2020, more than 230 000 people had failed to meet their set payments and had at least one payment default on their taken loans (Julianus Inkasso, 2020). These numbers are alarming, so the question has to be asked – why is the situation that bad?

One concrete reason cannot be brought out that causes poverty – it is a combination of multiple complex aspects: wider macroeconomic policies, labor market deficiencies and migration. In addition to the aforementioned, human resource development plays a particularly important role as well. Developing human capital and increasing opportunities for education and financial education for teenagers and young adults can be a key factor to escape from poverty. (Adeyeye & Ajakaiye, 2001)

A good example of needing good financial knowledge and behavior can be brought out from Estonia, where in 2021 people suddenly have the option to withdraw their pension funds right now, instead of when they retire (Pensionikeskus, 2021). A knowledgeable and well-educated investor may find this an excellent way to increase his investment returns and portfolio, but for others it can be as easily spent on liabilities.

According to Ministry of Finance's report on Financial Literacy of Estonian People (2019), only 43% of Estonian households planned and organized their financial matters regularly in 2019. Young people aged 18-29, unemployed people and young families with underage children were the leading groups who did not engage in budgeting at all. (Rahandusministeerium, 2019)

However, PISA research "Are Students Smart about Money?" in 2018 concluded that the Estonian students scored 1st place in the world in financial literacy tests (The Organization for Economic Co-operation and Development, 2020).

Comparing the results from the Statistics Estonia, Ministry of Finance and PISA, there is a bit of a controversy. While the national survey and research claims, that there is a problem in paying back loans and overall financial planning in Estonia amongst young people is very weak, PISA studies argue that young people who soon are entering the job market have one of the highest knowledges in financial literacy. This has also been brought out by the Ministry of Finance (2013), who said in even though Estonians ranked 2nd in the

world on financial literacy knowledge, they ranked last on financial behavior and attitudes in a 2010 OECD research. Estonians do have the financial knowledge, but lack in skill and attitude to ensure proper financial behavior (Rahandusministeerium, 2013).

Faktum and Ariko (2010) found in their study that people count on the public education system to teach them about personal finance. If the financial literacy level among basic school and high school students is and has been so high, why are only so few young people properly handling their personal finance matters? If the theoretical knowledge is so high, could it be that the youth do not know how to apply it into the real world?

This problem will be the research gap of this thesis – why don't young adults in Estonia actively track, save, budget and invest their money – handle their personal finance matters? Furthermore, this problem is not unique to Estonia. “Money Talks: Should I Be Listening?” was a US-based financial literacy program and conclusions of its effectiveness and results were drawn in by Varcoe, Martin, Devitto and Go (2005), who concluded that after completing personal finance classes, pupils originally thought they had improved their skills, knowledge and attitude related to financial planning, but if later compared to the pupils who had not completed personal finance classes, the answers were not much different on the question of *should you regularly put aside some money to savings?* This shows that this problem does not only affect Estonia and its' students but can be a wider issue as well.

Estonians' Financial Literacy Improvement Program for 2013-2020 was also created which meant to improve and advance the financial literacy related knowledge, skills, attitude and behavior of Estonians. The results and conclusions about the program and its effects have been published in Ministry of Finance's report “Financial literacy of Estonian people”. (Rahandusministeerium, 2013)

The author of the paper has also been teaching high school students economics in Võru Gymnasium, hence personal interest towards this topic and problem. This paper is focused on one Estonian high school, so the study findings and outcomes cannot be generalized to all Estonian students and high schools.

So, if the results of the surveys on financial literacy do not match with the practical outcomes, maybe the research results of this thesis can help understand the reasons why good attitude and knowledge do not always guarantee good financial behavior and provide suggestions to improve the financial education courses in the school. During planned research, the students' feedback about current courses and their suggestions for improving the studies will be sent to the teachers and management board of Võru Gymnasium in order to get feedback and improve my own suggestions.

The aim of this bachelor's thesis is to find out how students are applying their theoretical financial literacy knowledge and skills in real life in order to improve their behavior and attitude related to tracking, saving, budgeting and investing money, by the example of Võru Gymnasium 12th grade students.

The tasks of this research are to:

- define and explain the terms *financial literacy*, *financial behavior* and *financial attitude*,
- give an overview of previous studies and literature on financial literacy, and sum up the current Estonian' financial literacy situation,
- conduct interviews with 14 Võru Gymnasium students and 2 economics, analyze the data and compare students' financial attitude to their financial behavior,
- give relevant recommendations on how to improve the financial courses at school with the goal of improving students' financial behavior.

The first chapter gives an overview of definitions, previous financial studies, and the current situation of financial education and financial literacy in Estonia, together with statistics. The second chapter conducts the empirical study, analyzes the data and then draws conclusions.

The empirical study will be conducted in the form of structured face-to-face interviews, and then be made into relevant and timely data than can be analyzed.

Keywords: financial literacy, Estonian high school, budgeting, saving, investing

1. Theoretical basis of financial literacy

1.1. What is financial literacy, behavior, and attitude?

To fulfill the research problem and aim, we need to define the term *financial literacy*, give an overview of core concepts, previous studies and theses written on this topic.

The problem we are faced with, is that even though young Estonians have very high scores in financial literacy tests (Haridus- ja Teadusministeerium, 2020), which show knowledge and skills, they lack in attitude and behaviors, which is shown by worrying statistics on poverty, loans, and inadequate personal finance saving. These two problems come from lack of budgeting and financial planning, which young Estonians do not seem to do (Rahandusministeerium, 2019).

In order to start investigating and solving the problem, we must explain the definitions *financial literacy* (see Table 1), *financial behavior*, and *financial attitude* (see Table 2), bring

out and synthesize relevant sources. Firstly, financial literacy will be explained and discussed and only then we can move on to financial behavior and attitude.

The most elementary definition is that financial literacy is the ability to organize, plan, budget and manage your personal money in both short and long term. The definition of financial literacy has been used in various science, popular science, and other papers.

Table 1

Definitions of financial literacy

Author	Definition
OECD, 2011:3	“A combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing.”
Hastings, Madrian & Skimmyhorn, 2012:5	“Financial literacy is defined as an ability to use your knowledge and skills to manage your financial matters efficiently, in order to guarantee lifelong financial security.”
The President’s Advisory Council on Financial Literacy, 2008:2	“The ability to use knowledge and skills to manage financial resources effectively for a lifetime of financial well-being.”

Source: compiled by the author based on OECD (2011), Hastings, Madrian & Skimmyhorn, (2012) and PACFL (2008)

We can conclude from all the definitions, that financial literacy is not only about how much academic and theoretical knowledge and individual has about a certain topic, but also the financial behavior related to this knowledge, so basically how much knowledge a person has and how is it being used. The definitions by OECD, Hastings, Madrian & Skimmyhorn, and The President’s Advisory Council all had one thing in common – financial literacy is a combination (see Figure 1) of knowledge, skill, attitude, and behavior, which means that all these sources define *financial literacy* as something that is in the form of knowledge and skills, but also can and will be used in real life to make sound financial decisions.

Furthermore, long-term lifelong financial freedom/wellbeing was mentioned pointed out, meaning that the knowledge, skill, and behavior learned with financial freedom should last and have an effect the whole life. However, this is where one of the problems lies. The definitions specifically point out that the knowledge and learned behaviors should last the whole life, but when looking at real-life data, after graduating high school Estonian young people do not apply that knowledge and skills.

On the other hand, while OECD brings out a general definition of making sound financial decisions, The President's Advisory Council on Financial Literacy has defined *financial literacy* much more precisely, elaborating that people improve their understandings of products, services, concepts, and also where to go for help. Other definitions did not point out that a person with high financial literacy should know where to ask for help, if needed.

I used OECD's (2011) definition as a basis in my thesis, because it is the only definition that includes both attitude and behavior to improve your financial situation.

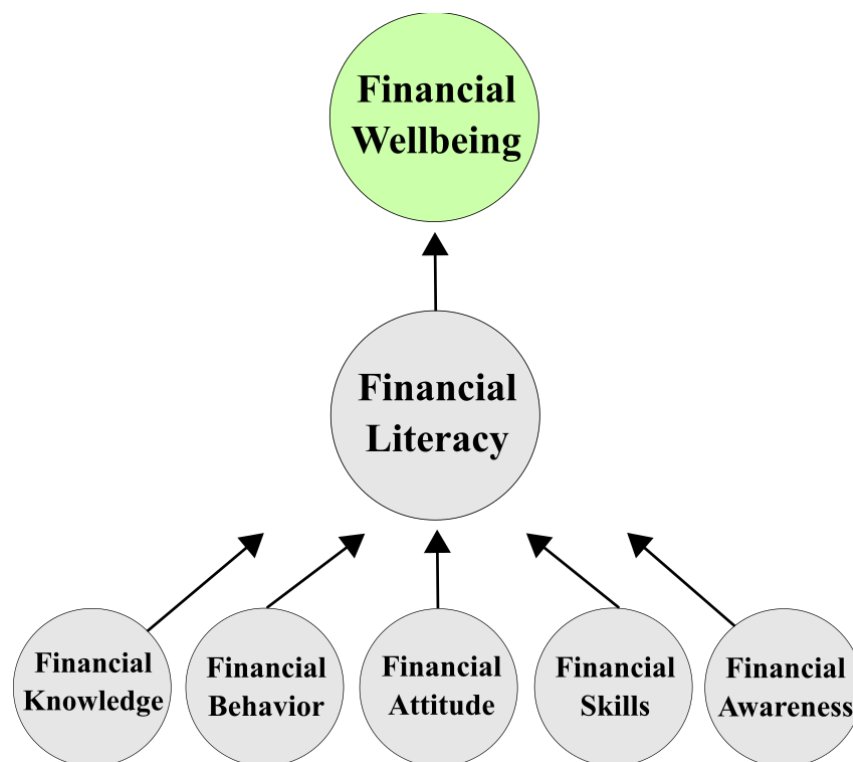


Figure 1. Components of financial literacy

Source: compiled by the author based on OECD (2011), Hastings, Madrian & Skimmyhorn (2012) and PACFL (2008)

Financial attitude and literacy are the reasons for good financial management behavior (Johnson & Parrotta, 1998), meaning that they are very closely connected. If the students' money tracking, budgeting, saving and investing is insufficient, we must look for the reasons behind that behavior. According to Pankow (2003), if the attitude is good, it will have a positive effect on behavior (see Figure 2), so the definitions of *financial behavior* and *financial attitude* should be looked together.

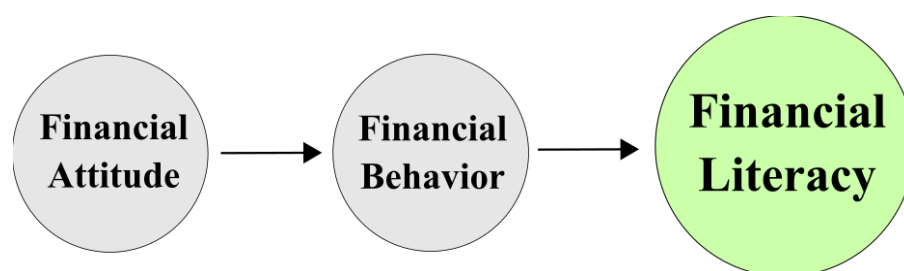


Figure 2. The importance of good attitude

Source: compiled by the author based on Xiao, Hilgert, Hogarth & Beverly, Ameliawati & Setiyani and Pankow

Since OECD (2011) defines *financial literacy* as an outcome of good financial attitude and behavior, and Hastings, Madrian, Skimmyhorn (2012) and PACFL (2008) emphasize financial behavior, these two terms must be defined to get a better understanding how they are connected to one another.

Table 2

Definitions of financial behavior and financial attitude

Author	Definition
Xiao, 2008:70	“Financial behavior can be defined as any human behavior that is relevant to money management. Common financial behaviors include cash, credit, and saving behaviors.”
Hilgert, Hogarth & Beverly, 2003:318	“Financial behavior can be divided into cash-flow management, credit management, savings, and investments.”
Ameliawati & Setiyani, 2018:821	“Good and appropriate financial management behavior can be started by applying a good and proper financial attitude as well. Without the application of a good attitude in financial management, it will be difficult for students to have savings in the long term. A good attitude will affect good behavior.”
Pankow, 2003:1	“[Financial] attitudes are a measure of your state of mind, your opinions and judgment about the world in which you live. They reflect a position you have taken with your values and are much more flexible than values.”

Source: compiled by the author based on Xiao (2008), Hilgert, Hogarth & Beverly (2003), Ameliawati & Setiyani (2018), Pankow (2003)

We can conclude from the definitions that good financial behavior and attitude are closely connected (Ameliawati & Setiyani, 2018). A common thing pointed out by Xiao and Hilgert, Hogarth & Beverly was that financial behavior includes money management which can be further divided into subcategories.

I used Hilgert, Hogarth and Beverly's definition as a basis in my thesis, because it brings out the three aspects of financial behavior that I address – cash-flow and credit management (tracking income & expenses), savings and investments.

Only Pankow talked about attitude as a flexible state of mind. Pankow also mentioned values, which has not been brought up by any of the previous authors in the research so far. Values are most certainly an important part in forming a person's financial attitude, but my thesis focuses on the students' financial attitudes and behavior.

Both Ameliawati & Setiyani and Pankow mentioned how proper behavior can only be applied when one has the proper attitude, which is especially important to my research, looking at students' financial behavior. My research focuses on finding out the reasoning on students' financial behavior and its different parts – tracking income & expenses, investing and saving money, so in that sense Ameliawati & Setiyani (2018) and Pankow's (2003) definitions are the most useful because they emphasize the importance of having proper attitude, that in term influences one's behavior. Ameliawati & Setiyani (2018) and Pankow's (2003) definitions in term are in accordance with OECD's (2011) definition, which includes both financial attitude and behavior. Now that we have defined *financial literacy*, *financial behavior*, and *financial attitude*, we should look into previous research on this topic.

1.2. Previous concluded studies on financial literacy

Here, some previously made research and literature about financial literacy have been presented. There have been many thesis and papers written about financial literacy, sex-related differences, investments & saving behavior and the family's involvement in one's financial literacy, but no theses about why high school students with excellent financial knowledge are not applying those skills in real life, which is why this research is focused on comparing students' financial attitude to their behavior.

Investing and saving behavior has been researched by Nenkov, McInnis, Maureen (2009), Wärneryd (1989), Ashby, Schoon, Webley (2011) and Martono, Khafid and Chalimah (2019). Ashby, Schoon and Webley conclude that economic adults are formed by the financial experiences they had in their teenager & childhood period, so "...if you save during adolescence you are more likely to save in adulthood" (Ashby, Schoon & Webley,

2011:18). Martono, Khafid and Chalimah (2019) describe how the people currently do not care much, are not aware of saving, and only do so when they have some extra money left after their regular spending. The saving habits need to be incorporated early on into children's lives, in order to make sure that they are prepared for the future. The study concludes that students' saving behavior improves greatly the more parents are involved. They also described how higher financial literacy levels, self-control and the perception of the future has a direct impact on students' saving behavior. However, they brought out that in most cases, parents' role will not be enough to ensure their children's proper financial literacy, but also requires the students to have a clear financial vision for the future, and personally learn more about financial literacy, be it in school or voluntarily. (Martono, Khafid & Chalimah, 2019)

Bartley (2011) says that the lack of financial literacy among youth in America is a profoundly serious problem, and experience and knowledge are deeply connected and complete each other when talking about finances. She concludes in her review that one possible solution to combat low financial literacy would be to make sure that parents are involving their children in relevant financial decisions (Bartley, 2011). It can be concluded from Bartley's work that family plays an important role in developing financial literacy, however the effectiveness of that is still unknown. For future research on this topic, she suggested analyzing if studying about financial literacy in classrooms is less effective than learning from parents.

Lusardi, Mitchell and Curto (2009) discovered that only 27% of surveyed young people could solve interest rate assignments and knew about inflation. They also talked about sex differences, finding that women tend to be less literate than men, even after taking into account family, background, and demographics. They also concluded that including parents in the development of a child's financial literacy may be more useful than just having children learn with other young people (Lusardi, Mitchell & Curto, 2009).

Varcoe, Martin, Devitto and Go (2005) concluded that lots of research have been made on youth's financial literacy, however the effectiveness of those programs has been rarely evaluated. Furthermore, when 1000 students were asked about personal finance, the key point that was brought out was that the students lacked in financial literacy behaviors and attitudes, even though they had understood basic financial knowledge (saving, budgeting etc.) and grasped the basic concepts. Their curriculum was highly successful, and the most important part was that having students complete the classes, financial behavior and attitudes actually improved (Varcoe, Martin, Devitto & Go, 2005).

All 4 articles brought out that the situation of financial literacy amongst youth is not very positive, but only Lusardi, Mitchell and Curto pointed out sex differences. Martono, Khafid, Chalimah and Lusardi, Mitchell and Curto together with Bartley argue that one possible way to solve low financial literacy is to incorporate parents more into students' financial education journey since they are often the biggest influence on their children. Varcoe, Martin, Devitto and Go's article points out that few financial literacy programs are evaluated and that there is a gap between pure academic financial literacy knowledge and actual real-life behavior, habits, and results. This is why I think it is crucial in my thesis to look at both attitudes and real behavior alongside with the influence of parents.

However, since Varcoe, Martin, Devitto and Go's survey was conducted in the USA almost 20 years ago, and Chalimah, Khafid and Martono's research took place in Indonesia, it is a perfect opportunity to investigate this very same topic now in Estonia.

1.3. The financial literacy level of Estonian youth

The problem brought out by the Ministry of Finance (2013) is that people and especially young people are not saving money and their money management is lacking. To find the reasons causing it, we must look at the bigger picture, including financial education. Only 43% of Estonian households have a budget and plan their expenses. Looking at age groups, it appears that the most active budget and expense planners are people aged 30-39. However, the most popular age group that does not plan their financials are youth aged 18-29 and people still in basic school or gymnasium. (Rahandusministeerium, 2019)

Looking at the volume of teaching financial literacy in Estonian schools and the volume of young people engaged in organizing personal finances, it can be said that they are in proportion to one another – since financial education is being taught in schools, most youth aged 18-29 should plan their financial matters.

However, looking at the most recent PISA test, which was conducted in 2018, the results tell a different story. “On average, students in Estonia outperformed students from all other countries/economies in financial literacy. Students in the Canadian provinces and Finland outperformed students from all other countries/economies, except Estonia” (OECD, 2020:50). Estonia was given a financial literacy score of 547, ranking overall 1st place in all countries. Indonesia ranked last with a score of 388. Estonia's score of 547 points was explained in the report as

“Students can apply their understanding of less common financial concepts and items to contexts that will be relevant to them as they move towards adulthood, such as bank account management and

compound interest in savings products. They can interpret and evaluate a range of detailed financial documents, such as bank statements, and explain the functions of less commonly used financial products” (OECD, 2020:54).

The report explained how Estonian and Polish students both are doing excellent in terms of personal finance and financial literacy “Estonia and Poland are particularly noteworthy as countries that have achieved both high performance and a high degree of equity. Students in these two countries are likely to be well-prepared to make financial decisions, regardless of their background or school characteristics” (OECD, 2020:70). However, PISA 2018 report said that Estonian students were well-prepared to make financial decisions, but this does not indicate actually increasing the behavior of making smart financial decisions, which seems to repeat the Ministry of Finance’s (2013) stated problem once again – Estonians have the base knowledge in financial literacy (meaning they are well-prepared to make financial decisions), but they lack the attitude and behavior related to financial management (Rahandusministeerium, 2013).

The students to participate in the first PISA test in Estonia in 2012 had already become adults in time of the 2015 Adult Financial Literacy survey. In 2012, Estonian students ranked 3rd in the world on financial literacy, but three years later as an adult, less than 50% of them planned their money for one month and almost 50% had not saved any money during the last 12 months. Moreover, 21% of Estonian youth aged 18-19 do not care about financial matters and only 27% of them plan their monthly expenses and income, according to 2019 OECD Adult Financial Literacy study (Haridus- ja Teadusministeerium, 2020). These problematic and controversial statistics are the reasons that the financial behaviors and attitudes of Estonians must be researched further.

PISA studies have played a paramount role in the research of financial literacy amongst young high school students, because they have been conducting Financial Literacy tests all around the world since 2012, which gives an excellent overview of the current situations as well as any developments a country has had. A PISA study “assesses the extent to which students in 20 participating countries and economies have the knowledge and skills, acquired both in and outside of school, that are essential for making financial decisions and plans for their future” (OECD, 2020:33). Estonia took part in PISA financial literacy test for the first time in 2012 and then it placed 3rd out of 18 countries. Comparing 2012 and 2018 results, Estonia was the only country, whose average score has increased substantially (529

vs 547 points). As of 2018, 95% of Estonian students have acquired basic knowledge of financial literacy.

During 2010-2018, these relevant studies were conducted on the topic of financial literacy in Estonia (see Table 3).

Table 3

List of previous studies on financial literacy conducted in Estonia

Date	Author	Title
2010	Faktum & Ariko	Finantsalane kirjaoskus Eesti elanike seas [Financial literacy among Estonian people]
2015	Saar Poll	Finantskirjaoskuse ja finantsteenuste alase teadlikkuse uuring Eesti elanike seas [The study on financial literacy and the consciousness on financial services among Estonian people]
2019	Rahandusministeerium	Eesti elanike finantskirjaoskuse ehk rahatarkuse uuring [Financial literacy of Estonian people]

Source: compiled by the author based on Faktum & Ariko (2010), Saar Poll (2015), Rahandusministeerium (2019)

The aim of the Faktum and Ariko's study (2010) was to explore and investigate Estonians' behavior patterns regarding financial literacy and knowledge. One of the key findings the study brought out was that young people are also more likely to spend money today instead of saving it, and tend to live more in today, than save it for tomorrow (Faktum & Ariko, 2010). Matching Bartley's findings (2011) in the USA and Martono, Khafid and Chalimah's (2019) in Indonesia, Faktum and Ariko (2010) concluded that 85% of Estonian participants said parents played the main role of a person's financial knowledge and 69% mentioned high school to be the main source of financial literacy and knowledge, which shows that people count on the public education system to teach them about personal finance. This shows that lots of people hope and rely on high school studies about financial literacy to improve their knowledge and financial situation later in life.

This creates a bit of a controversy – if many people count on the school system to teach them about personal finance, then not many parents will pay attention to the topic at home. However Bartley (2011) argues that involving children in financial decisions improves their financial literacy. Ultimately, both the parents' and school's input is very important in developing a children's financial literacy, but the role of parents should be emphasized more.

For tracking and planning the expenses, 61% of participants answered that they just keep track of their bank account balance to manage their financials which again shows that

lots of people do not engage in financial good behaviors, even though having well-rounded financial knowledge and skills (Faktum & Ariko, 2010). This again is particularly important to my research because it confirms the fact that the situation of financial literacy amongst young people is not particularly good.

The aim of Saar Poll's research (2015) was to map the knowledge of financial literacy of Estonian people aged 18-80 and compare it to previous studies made in 2010 and 2012. The research interestingly brought out that 36% of people aged 18-29 tend to save money in cash, which was the highest number in any age group. However, 37% of participants aged 18-29 said they have not saved money during last 12 months, which was also the highest percent compared to other age groups. An interesting finding was also that 18-29-year-old people have set the most financial goals (59% of participants), which shows that young people acknowledge the need to set and monitor goals, but despite having goals, data from Ministry of Finance (2019) shows, again that the real-life situation is much different. (Saar Poll, 2015)

Saar Poll's study is relevant in my thesis because it gave further information about the financial situation and attitude of young adults. Once again, it proved that young people have goals and the knowledge of financial literacy, but they lack the skills and behavior.

The aim of Ministry of Finance's research (2019) was to map the knowledge, attitude, and behavior of Estonian people regarding financial literacy, develop a better methodology to measure financial literacy and to seek for any changes in financial knowledge, habits or behaviors compared to previous studies (2010, 2012, 2015). They concluded that compared to the same study in 2015, theoretical financial knowledge has not increased, and even decreased in some areas. When asked about financial literacy attitudes, most young people 18-29 said that they do not closely keep an eye on their financials. The Ministry of Finance confirmed yet again, that the people do not apply their financial knowledge in real life to ensure better future and security, since it is not shown in good financial attitudes and behaviors. It has been also pointed out, that youth are a bit more disinterested and unconcerned than the average, related to financial matters. I would have liked to know the precise reasons why young people 18-29 do not track, budget, save, or invest their money but the report did not include that.

Ministry of Finance's report is vital to my thesis, because it provides current data and even compares the developments over the last 8 years, which bring out the same problem, that financial literacy knowledge and skills are not actively applied in real-life. However, it does not go into detail and reasoning, so my research is much needed to find out the causes of young adults not tracking, budgeting, saving and investing money.

All 3 authors found that most young people do not engage in active budgeting and planning, which further confirms the bad situation of financial literacy among young Estonian adults. However, Saar Poll brings out that 18-29-year-old people have set the most financial goals, but Ministry of Finance and Faktum and Ariko again have pointed out that most young people do not actively save and budget their monthly financials. Saar Poll also brought out that 34% of 30-80-year-old participants had not saved any money during last 12 months, indicating that the problem of lacking financial behaviors and attitudes is not recent, but has been going on for a longer period. Ministry of Finance's report does also not cover the topic of parents being related to financial literacy, while participants from Faktum and Ariko's survey thought parents' involvement was very important.

There have also been theses written by other university students regarding financial literacy and planning. Examples can be brought from UT as well. Veeret (2016) concluded in her MA that income, education level and sex affected the financial literacy levels the most. Veeret also mentioned that Estonians scored 2nd place on knowledge, but last place on attitude and behaviors. She says that changing financial literacy attitude and behaviors could be a more effective way to improve overall financial literacy than just knowledge and skills (Veeret, 2016). Madiste (2012) conclude that although there are many programs for adults and youth related to the improvement of Estonians' financial literacy, they are not coordinated together well enough, which brings the problem that some areas are double covered, while others have been left behind. For further research, she suggests taking a certain financial literacy improvement program and assessing its effectiveness and results.

PISA suggestions to Estonia for improving the financial literacy amongst young people is to incorporate more financial classes and topics into curriculums, schools, and materials. They also recommended to focus on topics related to growing money and the risks of investing (Haridus- ja Teadusministeerium, 2020).

All in all, Faktum and Ariko (2010) concluded that young people are more likely to spend money today instead of saving it. Saar Poll (2015) brings out that young adults have set the most financial goals, which is connected to perception of the future that Martono, Khafid and Chalimah (2019) also talk about. Ministry of Finance (2019) claims that people do not apply their financial knowledge in real life to improve their financial attitudes and behaviors. PISA suggested improving financial education in Estonian schools, so an overview of how financial education is taught in our schools should be made.

1.4. Financial education in Estonia

Financial education is also very relevant in this research, because the easiest and best way to improve financial literacy is to have strong financial education programs in schools (Fernandes, Netemeyer & Lynch, 2013).

Financial education has been defined by The President's Advisory Council on Financial Literacy (PACFL, 2008:2) – “the process by which people improve their understanding of financial products, services and concepts, so they are empowered to make informed choices, avoid pitfalls, know where to go for help and take other actions to improve their present and long-term financial well-being.”

Key points from the financial education definition is that the education is a process, meaning it is supposed to be an on-going activity, not limited by only school or classes. According to Kuivits (2019), the desired final result is financial literacy, and the process leading to that stage is called financial education. Financial education is supposed to help make better financial decisions in the future and avoid debts, payment defaults and bad financial situations. It also says that present and long-term financial well-being will be improved, but if looking at PISA tests, only the present situation is taken into account.

As of 2020, financial education is not a compulsory part of Estonian high school curriculum. Only mathematical economics is compulsory, but that subject is only math-based and narrow. However, there are some elective courses that students can choose from that are related to financial literacy and education: principles of economics and entrepreneurship, economic studies, and business studies. (Vabariigi Valitsus, 2011)

According to the Ministry of Education and Research (2020), 68% of students have learned about financial literacy in mathematics class, 39% in extra-curricular activities and around 50% have received information from teachers. Most students have been taught about money by their parents (95%) and the Internet (82%). OECD calculated the index of parental involvement with the children and financial literacy and they concluded that in Estonia, this involvement was relatively low, meaning that most Estonian parents do not particularly involve their children in topics regarding financial matters and money. (Haridus- ja Teadusministeerium, 2020)

Raising the financial literacy level together with the private sector has been a strong focus point in the Estonian education system since 2012, and the most important and relevant programs have been presented. Some chosen financial literacy programs have been created

by the government, while others originate from private sector companies, giving a better overview.

Ministry of Education and Research started an entrepreneurship program in 2016, which focuses on improving the teaching of entrepreneurship and economics in all education levels and forms. A campaign "Our Entrepreneurial School" has already been applied to 100 different schools. This program focused on entrepreneurship and economics in general, but connections about financial behaviors and attitude is unknown. Junior Achievement program has helped create and guide over a 1000 student companies in over 270 public schools (out of ~500) in Estonia. STARTER business incubator has created over 400 teams from 40 schools, which aims to make an actual business plan from a simple idea. Junior Achievement's program has helped students start their own mini businesses, emphasizing on accounting, marketing, and product development. However, this program does also not cover personal finance. Swedbank organized an educational field trip, with the purpose of improving students' financial literacy, but most importantly give them a practical experience on budgeting, working as a team and compiling a project. Swedbank's program has probably been the closest to financial behaviors and attitude. However, Swedbank is only invited to those schools, who voluntarily contact them and ask for the program. Estonian Bank Association has conducted guest lectures for the last 7 years to high school students, including web-lectures in 2020. Although useful, these lectures tend to be more economics-based, than talk about budgeting, saving and personal finance. (Haridus- ja Teadusministeerium, 2020)

The Ministry of Education has recommended schools to integrate more financial literacy classes into different subjects, which has proven to improve overall financial literacy levels (Rahandusministeerium, 2019).

Varcoe, Martin, Devitto and Go (2005) bring out a critical problem, that these programs may not be as effective as originally planned, since most are not evaluated. Lusardi (2008) argues that there can be a discrepancy on the theoretical knowledge shown on tests and actual real-life behavior. There are economics programs for improving skills and knowledge, and entrepreneurship programs for action and real companies, but the area of personal finance and financial literacy attitude & behaviors in between has not been covered much, which can be one reason of the low real-life financial scores of young Estonian adults (Rahandusministeerium, 2019).

This is exactly why the aim of this thesis is to compare the financial attitudes to the financial behaviors of high schoolers, and what the teachers and students think about possible improvements about the way financial literacy is taught in our schools.

2. Empirical study of high school students' saving behaviors and attitudes towards saving by the example of Võru Gymnasium

2.1. Methodology and reasoning

According to my research aim and tasks, I decided to use quantitative research methods, namely face-to-face structured interviews, because they provide thorough descriptions of habits, actions, and different points of views of participants (Savenye & Robinson, 1996). Therefore, qualitative interviews are very appropriate in this research, because using interviews I can easily understand what my participants opinions, attitudes and views towards financial behavior are. With interviews, I could ask the students extra questions and go deeper into particular topics, which are very insightful for my thesis.

According to Hancock, Ockleford and Windridge (2007), it's a good idea to use a qualitative approach, because qualitative methods are usually more flexible, softer and do not cause much anxiety. Voomets (2020) also used group interviews as her choice of research methods in her master's thesis research "Improving Financial Literacy via Social Media: Case of #Kogumispäevik", saying that since topics related to money are generally private and personal, qualitative research interviews are the best option. I also agree with Voomets, because for me, sending an online survey about a private topic to a university student I have never met would make me feel uneasy, however a face-to-face interview that is open and creates a personal connection would make it easier to answer questions related to money.

Kuivits (2019) uses and a questionnaire in her master's thesis research "Financial Literacy of 9th Grade Students – Knowledge of Money and Skills to Solve the Task of Preparing a Budget as a Group Work", however her questionnaire consisted of factual questions where there was only one correct answer. This was different from my study, because I asked questions about attitude and behavior, to which there often does not exist a correct answer. Laherand (2010) recommends using a directed qualitative data analysis method, when there are some previously conducted studies with theory about a certain topic, but they are inconclusive and need further research.

In my empirical study, I translated and coded the findings in a more general manner. According to Laherand (2010), one of the objectives of coding is to detect any patterns and the conditions when they occur. The themes were categorized into four parts: the attitudes

and the behaviors of financial literacy, current state of economics classes and future recommendations.

2.2. School background information and sample description

Economics is not a compulsory course in Estonian public high schools by national regulations (Vabariigi Valitsus, 2011). Individual schools have the option to include it in different study streams as a compulsory course and Võru Gymnasium is an example of that. I chose Võru Gymnasium, because having finished the school in 2017, I still have good connections and relationships with the teachers and school staff. In 2020, I was an economics substitute teacher there, which was a great opportunity to get to know the course structure & topics, methods of teaching and many active students. In 2020 & 2021, I also organized a 3x60min student company sales training with an alumnus from the school, to help the students perform better at an upcoming fair. This helped me better understand the Student Company program and give useful recommendations to the school staff.

As of 2021, the school offers three different study streams – humanities, applied sciences, and natural sciences. Economics & entrepreneurship is only a compulsory course for the students who are studying on the curriculum which emphasizes on math, English, economics, and sciences, which means that the humanities and natural science students do not have the option to study economics in their curriculum. The economics & entrepreneurship course is conducted throughout one trimester, twice a week in 75min classes (35 academical lessons in total). There, they learn about various topics (Võru Gümnaasium, 2021):

1. introduction to economics,
2. demand, supply, price,
3. employees, consumers, workforce,
4. monetary and fiscal policies,
5. the role of government in economics,
6. international scale economics.

The compulsory economics course is dictated by the Ministry of Education and Research and the national curriculum for high schools. The teacher in charge of compulsory economics course does not have much freedom, because there are a lot of topics and the course is short. The compulsory course focuses mostly on knowledge. Economics & entrepreneurship in Võru Gymnasium as a compulsory course is taught by Teacher 1. He has a master's degree in economics and has completed a 2-year course on the basics of pedagogy

and teaching. He became an economics teacher, because he had the respective education and wanted to actively teach high school students.

Nonetheless, there is another option for all students to participate in an elective classes, which are organized three times during an academic study year before the holidays, and include various different topics, ranging from photography, acting, sports to spiritualism, sciences, and finance. These elective courses are not usually conducted by the subject teacher, but instead people from outside the school. The elective course "Financial literacy" has been organized in Võru Gymnasium since 2016. The elective financial course curriculum is up to the particular teacher to decide, the teacher can choose freely what topics to teach and what teaching methods to use. Currently the elective finance courses are focused on personal finance and students' attitude and behavior related to their everyday financial matters (Võru Gümnaasium, 2020). The elective courses have more active study methods where students can be personally more active and involved. Active study methods however take usually more time and less topics can be covered, which is why Teacher 1 feels that he cannot use as much active study methods as he would like. Students often have Q&A sessions with entrepreneur guest speakers and field excursions to local businesses & factories. The elective course week does not have to be held in the school and it does not have a strict study schedule. Second and third semester of 2020/2021 academical year were different, because the courses were held online due to COVID-19. Financial literacy in Võru Gymnasium as an elective course was taught by Teacher 2. He does not have any specific economics education but has acquired personal finance and entrepreneurship knowledge & skills during his 10-year business and entrepreneurship experience. He runs a business daily and is not a full-time teacher. The reason why he decided to organize elective finance classes in Võru Gymnasium was purely because of personal interest towards personal finance, teaching and developing students.

For real-life business and entrepreneurship experience there is also an option to participate in the Student Company program. During one academical year period, students can start a mini-business and through the experience learn about entrepreneurship, business principles, and problem-solving. They can apply previously learned theories into real life, become better at teamwork and leadership and take responsibility, and make lots of contacts with other like-minded peers. Every spring, the Student Company of the Year contest takes place, which will represent Estonia in the European Student company competition. (Junior Achievement, n.d.)

- In 2016, three student companies from Võru Gymnasium reached the best student company of the year competition final stage and Cheeset managed to take the 3rd place. Their product was a kit, that helped you make cheese at home (Postimees, 2016),
- In 2018, many student companies were in Riga in an international student company festival, where the student company Labüü won the best student company award. Labüü's product was a wooden balance board game (Võru Gümnaasium, 2018),
- In 2021, student company Seenix reached the final stage of the best student company of the year competition, they make mushroom collecting buckets, that feature pictures of different species, together with an attached knife and emergency whistle (Junior Achievement, 2021).

Võru Gymnasium has been very invested in developing entrepreneurial skills, student companies and giving students an option to educate themselves on finance. In 2017, the school was given the award of the best entrepreneurship educator of the year (Haridus- ja Teadusministeerium, 2017) and in spring 2021, its students won the award for the best student company product of state schools (Riigigümnaasiumid, 2021). During Võru Gymnasium's 6 years of operation, there have been 13 student companies with 45 students on average every year.

2.3. Interview procedure

In order to find more about the behavior of and attitudes towards saving, face-to-face qualitative interviews in Võru Gymnasium were conducted in February with:

- 6 students from class 12R, who had compulsory economics classes,
- 8 students from class 12L/12H, whose curriculum does not include economics and finance,
- 2 economics and finance teachers of Võru Gymnasium.

Interviews were voluntary, students' permission to participate in the study was asked. All interviews were conducted in Zoom because of the threat of COVID-19. Altogether, 14 students were interviewed, of which 8 were boys and 6 were girls. Participants were 18-20 years of age. The average interview length was 37 minutes, with the longest being 46 minutes and shortest 33 minutes. Participants have been categorized by participation in compulsory or economics courses.

- Participants 1, 2, 4, 7, 8, 9, 10, 13 did not have compulsory economics,
- Participants 3, 5, 6, 11, 12, 14 had compulsory economics,

- Participants 1, 3, 4, 5, 6, 7, 10, 14 took finance as an elective course,
- Participants 2, 8, 9, 13 no compulsory nor elective classes,
- Participants 3, 4, 5, 6, 8, 9, 11, 12, 13, 14 took part in Student Company program.

Originally, 16 interviews were planned to be conducted, however since the qualitative information started to repeat and the different student group answers were in line with previous interviewees' answers, I decided to limit to 14 interviews.

I found my sample group, by getting in touch with the principal of Võru Gymnasium and having him send out a letter to the students on Study Information System on my behalf. The letter stated a brief introduction about me and my bachelor thesis and asked if students were willing to participate in my interviews. Finding students to interview was difficult at first, because only 3 students responded to my original message– one called and two responded via email. However, after sending out a second email to their personal addresses and personally contacting some students on Facebook and Instagram and, I was able to get in touch with 11 other participants. Getting personally in touch was very effective, because most students answered back and agreed to participate. Students with high interest to economics and finance showed mostly high interest towards the interviews but finding students who did not study neither compulsory nor elective finance was the most difficult. As I found out, the elective personal finance courses in Võru Gymnasium are very interesting thus highly praised, so naturally lots of students have participated there.

Having completed the first 5 interviews, finding new participants become easier, because word amongst students started going around and a snowball effect appeared, where I asked students to help me by contacting other students and soon I was able to complete the rest of the interviews. The fact that in February 2020 I was a substitute economics teacher in Võru Gymnasium and had some personal connections to the students definitely helped.

We set up a date and time for the meeting and I sent the questions and Zoom link for the meeting beforehand. I used a similar structure like Voomets (2020) which consisted of:

1. 5-10 minutes of warm-up and introduction,
2. 15-25 minutes of interview questions,
3. 5-10 minutes of additional questions and conclusion.

I used my computer for the Zoom meetings and my phone's built-in voice recorder to record the conversations. After that, I relistened to the recordings and categorized them by keywords. Then, based on answer keywords, summaries and coding tables were made with different themes and categories.

The interview procedure with the economics and finance teachers of Võru Gymnasium was relatively the same. I sent out an email request, asking them to participate in the interview, we set up a time and date and the meeting took place in Zoom. Average interview length was 45 minutes.

2.4. Interview questions

In my qualitative study, I used a structured interview and questions were divided into three parts – background, attitudes and behaviors. Voomets (2020) also used a structured interview, dividing the questions up into introduction, warm-up, main questions about knowledge, skills and behavior, additional questions, and conclusion. Interview questions (see Appendix A) have been taken from Vieira, Potrich and Mendes-Da-Silva (2018), Kuivits (2019), Ministry of Finance (2019), and Voomets (2020), others have been added by the thesis author based on the previous theoretical frameworks by Martono, Chalimah, Khafid (2019) and Varcoe, Martin, Devitto, Go (2005).

All interview questions were open questions, which gave the respondents freedom to answer to them however they liked. No indicative interview questions were used. According to Kuivits (2019), open questions should be used when questioning about financial matters in order to get the most reliable answers.

2.5. Findings from the interviews with students

Students' financial attitude and behavior

Interviews with the students showed that although all of the participants agreed that saving money and budgeting was important, only 57% have saved money during last 12 months and 7% followed a monthly budget (see Figure 3). The people who followed a monthly budget, were different from the rest of the sample because they were not living with their parents and were given a yearly sum to operate, which they had to divide between months. In Figure 3, the “attitude” chart represents the share of students, who agreed that these particular activities are important, and “behavior” chart represents the share of students who were actually engaged in those activities.

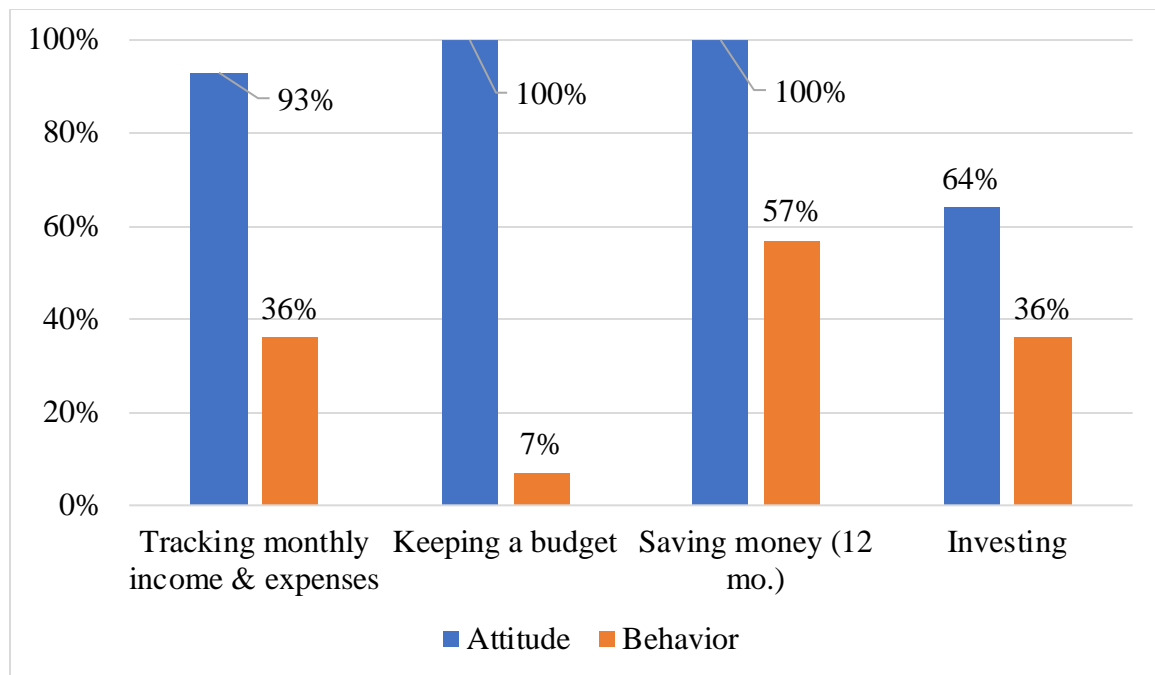


Figure 3. Students' financial attitude vs financial behavior, % of respondents

Source: compiled by the author

When asked why they do not track or budget their money, the most common answer was that since they are still living with parents and do not have a steady income or fixed recurring expenses, they did not feel the need to track their money or keep a budget. While 50% of participants stated that they wanted to become financially free someday and 64% said that everybody should regularly invest some money, only 21% had written down financial goals and 7% invested money regularly. However, 36% of participants had tried investing money with small amounts, with the most common investment type being cryptocurrency and Baltic stocks. It is interesting to bring out, that there was a huge gap in terms of investing. None of the students who had taken neither compulsory nor elective finance classes had tried some sort of investing, whereas 50% of students who attended either compulsory or elective finance classes had invested their money at some point, and 10% of students from the same group were actively investing money as well.

At first, a bigger behavioral difference was expected from the relationship of studying economics in school and having good financial behavior. Only 25% of students who had neither compulsory nor elective finance classes tracked their income and expenses regularly, whereas 50% of students who had studied compulsory economics, elective personal finance or both, were actively tracking their monthly income & expenses. The biggest difference was in budgeting and investing (see Figure 4).

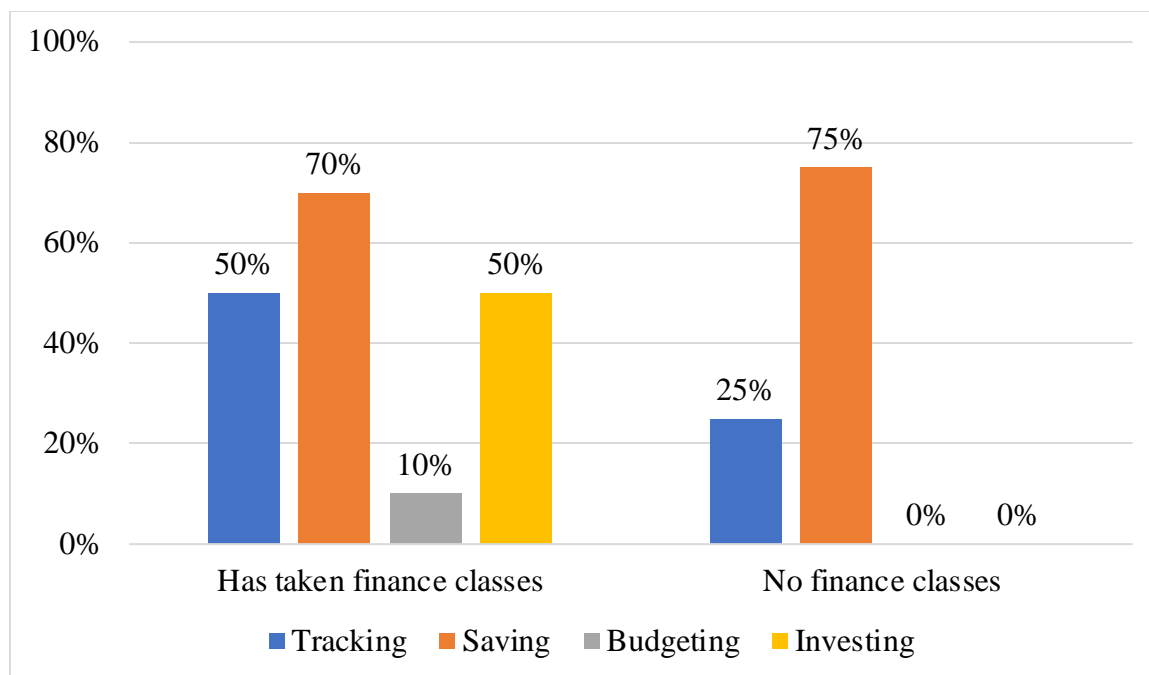


Figure 4. Students' financial behavior, % of respondents, by participation in finance courses

Source: compiled by the author

Gender did not show a significant difference in my study (see Table 4). 8 boys and 6 girls participated in my qualitative study, so the sample was rather balanced. Tracking income & expenses and participation in elective finance classes was almost the same, reading financial books was identical. Saving money and investing was the only significant difference, where the boys' involvement in those activities was much higher than the girls'.

Table 4.

Financial behaviors by boys and girls

Activity	Boys	Girls
Tracks income & expenses	38%	33%
Has tried investing	50%*	17%*
Has saved money during last 12 mo.	75%	50%
Participated in elective finance class	63%	50%
Has read finance related books	50%	50%

Notes. Investing behavior is significantly different among boys and girls

Source: compiled by the author based on interview findings

There were 2 different examples from a boy and a girl student. Participant 2 (a boy) was not interested in economics/finance and stated that saving money, tracking income & expenses, keeping a budget and investing is very important. However the participant did not

track his money, budget, invest or have any written financial goals. He was not happy with current money management and had not saved money during the last 12 months. The participant had not read any finance books. From the theoretical spending exercise (Appendix B), he would save 95% of his money and spend 5%.

In contrast, participant 3 (a girl) was interested in economics and wanted to study business in the future. She stated that saving money, tracking income & expenses, keeping a budget and investing is very important, however she only engaged in saving and investing her money, mentioning that she actively used Swedbank's app *Easy Saver*, which automatically rounds up each card payment and sets that money aside to be used later (Swedbank, n.d.). She was happy with her money management but did not have written down financial goals. The participant had read a few finance books. From the theoretical spending exercise, she would invest 84%, spend 15% and save 1% of her money.

Spending a 1000€, 10 000€ and 1 000 000€

When being asked the question "What would you do with 1 000/10 000/1 000 000 euros?", the answers were quite different as well (see Appendix B). The exercise showed that students who had completed more finance courses were more likely to invest their money into assets than those, who had not taken finance (see Figure 5).

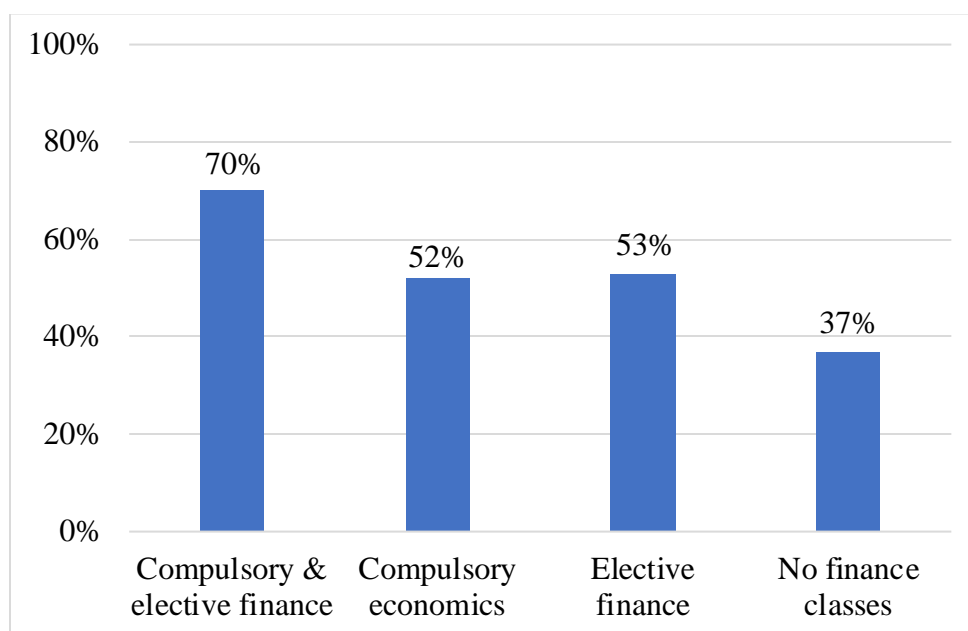


Figure 5. The share of students' theoretical invested money, by participation in finance courses

Source: compiled by the author

Current economics & finance classes in school

On the other hand, a lot of new information appeared as well, especially on the topic of the state of current economics classes and the students' recommendations for the future (see Appendix C). Students that had had compulsory economics were generally happy with the course, they stated that the course was very interesting, and the teaching style as excellent. However, the course included too much theory and was too broad, which is probably due to the large number of topics needed to cover and a relatively short timeframe, which can be reasoned by the students concern of not having enough total economics classes. They said that their financial behavior and attitudes did not change much having completed the course and there were few practical real-life outputs to the course. Only 33% of the students who had studied compulsory economics stated that they had changed their behavior after the course, whereas 50% of students who had completed the elective course changed their behavior after the course.

Whereas the compulsory courses were generally well-received but criticized, the elective finance classes were praised high. All of the elective course participants told that the course was very interesting and useful, especially the topics on saving, budgeting and investing. Students found that the topic of personal finance (saving, budgeting, investing, taxes, bills) is much more useful, practical, and applicable, compared to the more general introductory topics from microeconomics, macroeconomics, fiscal & monetary policy and the global economy that were taught in the compulsory economics courses. 50% of the elective finance class participants changed their financial behavior after the course and 88% of participants emphasized the benefits of solving practical, real-life tasks and case studies.

Students' recommendations for improving the classes

When asked about the recommendation for improving the classes, the participants were not shy about giving feedback. Since students participated in different courses, the recommendations are general and not about a particular course or a teacher. Participants have been divided into categories by participation in compulsory or economics courses. Overall:

- 4 students studied compulsory economics and took elective classes,
- 2 students studied compulsory economics only,
- 4 students did not have compulsory economics but took elective classes,
- 4 students did not have compulsory nor elective finance classes.

It is important to note, that since there were students with different levels of economics and finance, the recommendations should have varied by a big margin, meaning

that the students who had already completed their economics classes should have had more detailed and precise feedback on how to improve the classes. However, all 14 interview participants said that economics should be made a compulsory course for all high school streams, even the students who did not take the compulsory nor elective courses. The students that had compulsory and/or elective finance classes realized the advantages and the necessity of studying economics/finance in high school, in order to be prepared for the future, so they recommended on teaching everyone the subject. Students that had not participated in neither course understood that their knowledge on personal finance and handling their financials was insufficient, so a recommendation was made to make finance a compulsory course. 20% of the participants who studies elective or compulsory economics also described how seeing their less financially literate peers made them realize that many young people do not know the principles of personal finance and economics, or how to efficiently handle their money. 50% of participants thought that economics and finance should be taught at a bigger volume in high school.

All 14 interview participants thought that financial literacy and economics should be taught more thoroughly in school, with the focus on personal finance (see Figure 6). All students (even the ones that had not taken any economics classes) said that they would like to know more about budgeting, taxes, bills, tracking your money. 43% of students recommended also adding investing to the aforementioned topics. 57% of participants wanted the economics class to include more practical real-life exercises, that can have an immediate effect on their financial behavior and everyday life. 21% also pointed out the necessity of including books on finance, economics, and financial literacy to the list of compulsory reading.

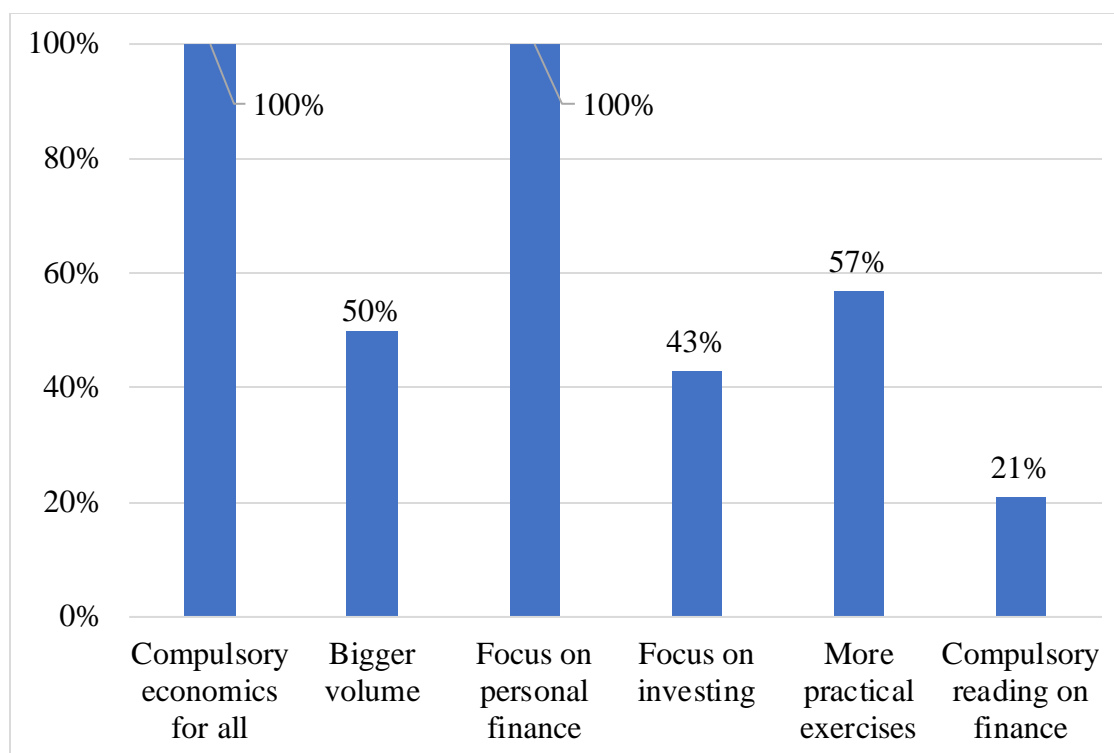


Figure 6. Student's recommendations for future courses, % of respondents

Source: compiled by the author

2.6. Findings from the interviews with the teachers

Current economics & finance classes in school

The teachers stated that students are becoming more and more interested in economics and finance. There have also been some recent trends, where some active and entrepreneurial students have really gotten into investing and stocks. These students can be so ahead of their peers, that it can become a challenge to teach the class. Compulsory economics course

Teacher 1 described how some students are very interested in specific parts of economics and finance, like investing, entrepreneurship, and sales. Teacher 2 described that lots of students participate on his elective personal finance course who are personally very interested in the topic, thus having already above average financial knowledge, attitude, and behavior. Students with higher interest towards the topic tend to participate on the elective courses, but both teachers find that there are several students with much high knowledge than the class, which makes teaching them a challenge.

Teacher 1 tries to be a good example for the students, he follows a monthly budget, tracks income & expenses and saves money regularly. Currently he does not invest regularly and wants to increase his income. Teacher 2 also tries to be a good example for the students. He follows a monthly budget and tracks income & expenses. He invests all of his spare

money back into the business and is not engaged in any other investments. Both teachers want to be a good example for the students by their individual financial behavior. In addition to Teacher 1 following a budget and tracking money, Teacher 2 also is actively investing his money.

Methods of teaching

Teacher 1 described his methods of teaching as classical - using slides, practical group assignments and quizzes. Teacher 2 uses more real-life exercises and tries to make the elective personal finance courses as interesting as possible – during the 5-day study period, the students read the book *Rich Dad Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!* by Robert Kiyosaki, visit local companies, and invite local successful entrepreneurs, stock traders and other business-related people in for interviews. They also play “Cashflow” board game, which is also developed by Robert Kiyosaki and is supposed to simulate real-life as precisely as possible. The goal of the game is to collect passive income via buying real estate, stocks, and enterprises. When your passive income is higher than your monthly expenses, you no longer need to work a 9-5 job and can “escape the rat race”. According to the students, the game does a wonderful job at displaying the differences between assets and liabilities and is a really fun way to learn about financial literacy through playing a board game with your peers.

Both teachers try to use lots of examples from own personal lives to illustrate such topics as loans, taxes, salary, savings. Teacher 2 also takes the students on a tour to his warehouse and later shows his company balance sheet and yearly consolidation report, to give the students better overview of the situation. Teacher 1 uses more classical methods, whereas Teacher 2 tends to use more active study methods, such as board games, excursions to local companies and invite lecture speakers.

Currently, very little budgeting, saving and personal finance is incorporated into the compulsory economics & entrepreneurship course, about 4 academical lessons out of a total 35. Both teachers stated that financial literacy, finance, and economics is not taught enough in schools because the government and Ministry of Education and Research do not pay enough attention to the topic. However, just like the students, the teachers also point out that student companies seem to be a great way of increasing students' financial literacy, attitudes, behaviors and help them apply previously learned theoretical knowledge into real life. The usefulness of student companies was confirmed by interviews with the students, 100% of the student company participants thought that the program was great to develop financial literacy and advance their entrepreneurial and personal finance skills.

Moreover, both teachers pointed out the influence that parents have on a students' financial education. They have witnessed many cases, where there is a definite positive correlation between the parents' financial literacy and the students' financial literacy. Teacher 2 points out that money and finance can be an unpopular subject to talk about in Estonian households, especially if the family is not in a great financial situation, which puts more emphasis on the school to teach financial literacy and finance.

Teachers' recommendations for improving the classes

The teachers said that economics and personal finance should be taught in school more thoroughly, adding that economics and finance should be incorporated into all subjects, in addition to being an entirely separate subject. This would be the only option to teach about personal finance and financial literacy, alongside with more general economics and principles of entrepreneurship. If there were to be more economics and finance courses, personal finance, budgeting, taxes, loans, and investing should be taught more. Teacher stated that adding personal finance and economy books for compulsory reading would also be great for the future. Teacher 2 brought out that since student companies are usually supervised and instructed by school staff (which sometimes includes people with business knowledge, but often not), the program participants may not receive enough financial and entrepreneurial advice to fulfill their student company true potential. Having local entrepreneurs and business-minded people instructing the companies could advance the program even further.

3. Discussion

At the of the meetings, most participant said that the interviews were interesting and insightful, and they felt they had a chance to gain a new contact. 50% of the interviewees mentioned that they would never agree to spend 30-40 minutes on a quantitative survey but were happy to help with the interviews because of the friendly and open conversations. The fact that I have been an economics teacher and organized student company sales trainings in Võru Gymnasium myself, definitely helped with the interviews, most students were very open and talkative. Ashby, Schoon and Webley (2011) pointed out that sometimes personal questions about money might be answered in a way that would show participants in a better light. For example, answering positively to the question *Have you tried investing your money anywhere?* because they think it is what they should do. However, since more than a third of participants answered that they have not invested at all shows that the risk of getting false answers was not too high.

Additional questions to me were different from student to student. Participants who were personally very interested in economics, UT Business Administration program and

business in general asked a lot of questions about my curriculum, university experience, working experience and various other topics. 35% of participants said they much appreciated my thoughts, tips, and further ideas on how to secure yourself a study program in UT that you enjoy.

Tracking, saving and budgeting money

It is particularly important to note that out of 14 student interviewees, 12 were still living with their parents or family, so only 2 students were living alone. Only 36% of participants tracked their income & expenses, 7% were budgeting and 57% had saved money during the last 12 months. In contrast, Saar Poll (2015) discovered that 37% of participants aged 18-29 had not saved money during last 12 months. Different levels of personal interest towards economics & finance may have also been an important aspect, because 100% of the students who said they were interested in economics & finance had saved money during the last 12 months, and 44% were actively tracking their income & expenses.

Faktum and Ariko (2010) brought out in their research that young people were more likely to spend money today instead of saving it, and tend to live more in today, than save it for tomorrow, which was confirmed by my interviews and practical exercise of spending theoretical money. From the exercise of spending 1000€ and 10 000€, students were more liberal, tending to buy more liabilities and just save the rest of the money. Differences also appeared when looking at finance class participations. Students who had studied economics/finance in school would save 41% of their money, whereas students with no economics/finance classes would save 63% of their money.

All in all, the students who had completed either compulsory or elective finance classes were more likely to track their income & expenses, budget, invest and overall focus more on their financial matters compared to those who had not studied economics/finance.

Interviews with 2 students who lived alone provided valuable insight to my thesis, because most students who were living with parents and did not track their income & expenses or have a budget claimed that even though they understood the importance of it and wanted to start tracking their money and budget in the future, they currently did not feel the necessity and urgency to do it. This was reasoned by low fixed expenses and not having a stable income yet, which was also brought out by Saar Poll (2015) who concluded that 18-19-year-olds are not usually the household money earners, which can lead to parents not involving them into financial matters.

Martono, Khafid and Chalimah (2019) described how self-control and the perception of the future have an impact on students' saving behavior. The case of not having enough

self-control was illustrated by one participant, who mentioned often impulsively making unnecessary purchases in online stores such as AliExpress, eBay and Amazon. The participant had excellent financial attitudes, but lacking self-control meant that her financial behavior was not good.

Saar Poll's study in 2015 concluded that 59% of 18–29-year-old people had set financial goals, but only 21% of my 18-20-year-old sample had set written financial goals. The participants who had written down their financial goals had also invested and saved their money, indicating to better perception of the future.

Investing money

Overall, only 36% of participants had tried investing money with small amounts. 50% of students who attended either compulsory or elective finance classes had invested their money at some point, whereas none of the students who had taken neither compulsory nor elective finance classes had invested their money. On average, students would invest only 53% of their money into assets and either spend the rest on liabilities or just save it for everyday expenses. Nevertheless, there clearly was a trend on the amount of money that students would allocate to asset investments, depending on the participation of economics & finance classes they had.

When it came to 1 000 000€ students were mostly conservative, and some could not even imagine the amount of money. In some cases, the students' perception of the money was far off the real value, claiming that they would buy "lots of apartments in Estonia and New York, save a couple hundred thousand for future kids and buy luxury cars". 4% of participants mentioned that if they had 1 000 000€ they would hire a financial advisor to teach them about good financial investment decisions. This indicates that currently they do not know much about investing into assets, but at the same time are aware that their financial knowledge is not the best, so getting in touch with somebody smarter than them would be a wise thing to do.

Another notable difference in investing was the involvement of boys and girls. Lusardi, Mitchell and Curto (2009) talked about sex differences as well, finding that women tend to be less literate than men, even after taking into account family, background, and demographics. However this was not a major difference point in my thesis, except for the behavior on investing. 8 boys and 6 girls participated in my qualitative study, so the sample was rather balanced. 50% of boys had tried investing, whereas for girls it was only 17%. This difference can maybe be reasoned by the difference of men's and women's financial risk tolerance. Fisher and Yao (2017:20) found that "...a gender difference exists in risk

tolerance, even after adjusting for variables such as age, income and saving horizon.”

However, they noted that the gender difference can be also explained by the individual persons' risk tolerance and other personality traits, which was also the case in my study.

Participant 2 (a boy) would save 95% and spend 5% of his money, stating that he just would not know where to invest his money, therefore just set it aside into savings. In contrast, participant 3 (a girl) would invest 84%, spend 15% and save 1% of her money. This illustrates Fisher and Yao's (2017) findings, that other factors such as individual characteristics, family background and personal interest should also be taken into account.

The involvement of parents

According to Suiter and Meszaros (2005), getting an early start on financial education is critical, because it sets the tone for spending, investing and saving habits for the rest of the students' lives. This is further confirmed by Ashby, Schoon and Webley (2011) who conclude that economic adults are formed by the financial experiences they had in their teenager and childhood period. 79% of the students described how their parents were their biggest influence on financial attitude, behavior, and habits. This is connected Faktum and Ariko's (2010) study, where 85% of participants said parents played the main role of a person's financial knowledge. This was often illustrated by either a positive or a negative example – participants brought out, how their parents had been tracking their income & expenses and keeping a budget for a long time, meanwhile having their children do the same. On the other hand, students who said that they do not talk much about financial matters at home described how for them financial literacy and personal finance in general has become a topic that they are not really interested in, because they have no knowledge or experience about it. This was also brought out by Lusardi (2008) who concluded that low income and education households have a different approach and way towards savings, compared to those with more education and wealth. 69% of Faktum and Ariko's study participants mentioned high school to be the main source of financial literacy and knowledge, showing that people count on the public education system to teach them about personal finance. This shows that lots of people hope and rely on high school studies about financial literacy to improve their knowledge and financial situation later in life. My research was not about parents or their influence and I only had one question about the involvement of the development of students' financial literacy by other parties, *Who or what in your life has had the most impact on your financial literacy and how?* After analyzing the results, I was surprised that 79% of participants mentioned “family” to be their biggest influence on financial matters, which again shows that this aspect is very important. The importance of parents' involvement has

been also brought out by Faktum and Ariko (2010), Martono, Khafid, Chalimah (2019), Bartley (2011) and Lusardi, Mitchell and Curto (2009), so this topic should definitely not be overlooked because further research is needed.

Economics & finance classes at school

Compulsory courses teacher used more traditional teaching methods, whereas the elective finance teacher focused on active study methods. Ball, Ross, Roth and Edwards (2013) conducted a study about active studying and they concluded that the participants' study productivity increased compared who those who did not take part in active study sessions. This was also the case in my study, 33% of the students who had studied compulsory economics stated that they had changed their behavior after the course, whereas 50% of students who had completed the elective course changed their behavior after the course. This finding is also directly in line with the students' feedback on the courses, where they said that the compulsory economics classes were too theoretical and had few practical outputs, and the elective classes were interesting and useful, because they solved real-life cases and focused on personal finance. This shows that the real-life outputs of these courses could be more practical and applicable.

I also noticed that there was a trend related to taking compulsory economics, elective economics, and student company participation (Appendix C). 66% of students who had studied economics as a compulsory course, signed up for the elective course as well, and all of the students participated in the Student Company program. A possible explanation would be that many students are actually interested in personal finance, but since they have not had any classes in middle school, they do not know about it when entering high school and choosing their curriculum. Having completed compulsory economics, some students may discover that they are interested in business & finance and sign up for the elective financial literacy course.

Generally, students understand the necessity of economics and finance and would like to have future classes and curriculums focus more on personal finance, which 100% of the program participants stated. The teachers and students both agreed that currently, not enough budgeting, saving and personal finance is taught in the economics & entrepreneurship course. Students said that they were less interested in studying general economic theory, principles of entrepreneurship and macroeconomics, when they lacked the knowledge of personal finance and how to personally manage your daily financial matters. The 64% of students that considered themselves to be interested in economics and finance stated that they would still be interested of learning about general economics, principles of entrepreneurship and other

wider topics, however without personal finance it would not be as useful and practical in terms of changing real-life behavior and actually improving the attitudes and behaviors.

Recommendations for the future

After doing a literature and previous studies' overview, talking to 14 students & 2 teachers, and taking a deep dive into the national high school curriculum, I collected useful information to make future recommendations for the school. Having been a part-time economics teacher in Võru Gymnasium myself too, I learned that the students actually have a lot of interest towards the topic of financial literacy and personal finance, if it is taught in an interesting, practical, and well-illustrated manner. The teachers greatly appreciated the study feedback I had already collected from my interviews with the students, so just like with the students, the interviews with the teachers were mutually beneficial as well. I shared my notes about the students' recommendations via email.

Adding incorporated personal finance

I agree with the teachers' and students' recommendations of having more practical economics lessons that are focused more on personal finance, which were directly connected to Ministry of Finance's report (2013) that suggested incorporating more practical financial literacy materials and lessons with school curriculums, making financial literacy trainings and including teachers in them as well. On the other hand, Lusardi (2008) argues that there has not been enough research to estimate how much do financial education programs cost and how effective they are in return. Both Varcoe, Martin, Devitto and Go (2005) and Madiste (2012) suggested researching the effectiveness of different financial literacy and education programs, because the real-life saving and money management situation has not improved much during the last 10 years (Rahandusministeerium, 2019). However with the students, teachers and Ministry of Finance claiming that financial education should be put more into school curriculums, it is definitely worth a try even without extensive studies evaluating the outcomes of such programs. The high school compulsory course of economics & entrepreneurship should not be discarded but based on the interview findings, the structure and topics should be reconsidered.

Changing study methods

Teachers and students mentioned adding financial books to compulsory reading list, but the students with low interest towards reading and overall economics & finance might not like this improvement and may feel pressured to learn about a topic that they do not personally enjoy. Students brought out books such as *Rich Dad & Poor Dad: What the Rich Teach Their Kids About Money That the Poor and Middle Class Do Not!* by Robert Kiyosaki

and *Rikkaks saamise õpik [How to get rich]* by the well-known Estonian writer and businessman Jaak Roosare. Incorporating YouTube, hands-on financial games and even a theoretical investment game using a demo account in LHV Trader would most certainly fit under the students' recommendations of having more practical and real-life classes.

Suggestions for future research

I would suggest looking more into the ways how personal finance and economics in school could be taught in such manners, that the students start practicing good financial behavior (tracking income & expenses, budgeting and investing), even if they currently live with their parents and do not feel the need to do so. Furthermore, since previous studies from Martono, Khafid, Chalimah (2019), Bartley (2011) and Lusardi, Mitchell, Curto (2009) together with my interview data prove that parents have such a big role in forming a teenager's financial education, it should definitely be researched more. However, currently the problem lies with educating these students who do not have received good financial attitude and behavior from their parents and are not personally interested in business, economics, and personal finance. This situation creates a dead end, where financially illiterate people do not receive any education and cannot improve their financial behavior. This very fact is why the school should focus and emphasize more on those students who have not had the proper influence from home. In addition, parents should be informed that their financial behavior directly affects their children's behavior, so they would at least try to set a better example.

Conclusion

The current level of students' financial literacy is relatively high (OECD, 2020; Varcoe, Martin, Devitto & Go, 2005), however the actual financial behavior of Estonians students do not show good results (Rahandusministeerium, 2019). OECD (2011:3) defines *financial literacy* as "a combination of awareness, knowledge, skill, attitude, and behavior necessary to make sound financial decisions and ultimately achieve individual financial wellbeing." The definition by itself explains that financial literacy is the applicable combination of knowledge, attitude, and skills, which is actively used to improve one's financial situation and have a better financial future. Ameliawati and Setiyani (2018:821) claimed in the definition of *financial behavior* that "...appropriate financial management behavior can be started by applying a good and proper financial attitude". By Hilgert, Hogarth and Beverly's (2003) definition, financial behavior includes tracking, saving, budgeting and investing money.

After completing 14 student and 2 teacher interviews, I discovered that the students' attitudes were very positive indeed, however their financial behavior in tracking, saving, budgeting and investing money did not reflect these positive attitudes, meaning that students' attitude does not need further improvement, but behavior most definitely does. This finding was directly connected to the studies made by the Ministry of Education and Research (2020) and Ministry of Finance (2019).

All participants stated that keeping a budget and saving money is important, but only 36% and 7% engaged in those activities, respectively. This was followed tracking monthly income & expenses and investing money, where 93% and 64% respectively thought that it was important, but only 36% were actually tracking or investing their money.

The main reason behind insufficient financial behavior in my sample is that since 86% of participants lived with their parents, they did not feel the necessity for properly tracking, budgeting, saving, or investing money. Since they do not have to manage their finances every day in order to survive, most students obviously do not have such behavior. Just by teaching students financial education, changes in behavior and habits may not appear if it is not put into use (Lusardi, 2008). This was contrasted by one participant who had the same good financial attitude as others but lived alone, which created the necessity to track her money and follow a budget – have good financial behavior.

Students, that had not taken any finance classes in high schools showed much lower rates of tracking, budgeting and investing money, which was confirmed by both their current behavior and the theoretical exercise of spending 1000€, 10 000€ and 1 000 000€. For example, all students who have not studied finance in high school have never invested their money, whereas 50% of students who have completed either compulsory or elective finance, have done so. The elective courses use active study methods where students can be personally active, involved and apply their knowledge into real-life behavior.

Another aspect brought out by Faktum and Ariko (2010), Bartley (2011) and confirmed by my interviews was the parents' involvement in their children's financial literacy - 79% of the students stated their parents have been their biggest influence on their financial attitude and behavior. When the parents had been personally tracking, saving, budgeting and involving their children in those activities, the students showed much higher individual involvement in those activities as well.

To sum up, the reasons for insufficient financial behavior in my sample were a combination of:

- having no practical and applicable financial classes at school resulting in poor knowledge & attitude,
- no good prior example from parents
- individual necessity, depending on if students still lived with parents or not

Recommendations for schools from students, teachers and Ministry of Finance include focusing on personal finance, making courses more practical and applicable, and incorporating economics and finance with other subjects. Economics and personal finance should also be made compulsory for all curriculums. More active study methods should be used when teaching personal finance, where students could be more active and improve not only their financial attitude, but possibly behavior as well.

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Appendix A

Interview questions

Interview questions for the teachers:

Background questions:

- What is your background and qualifications for teaching your class?
- How big is the amount that financial literacy is being taught in your school compared to other subjects?
- How many students in class on average are interested in economics and finance?
- How many students are there that are much more/less interested in economics?
- What methods do you use to teach economics and finance in school?
- What improvements can there be made to make the topics more interesting and studying more effective?
- How much is budgeting, saving, and investing included in the economics course?

Questions about attitude:

- Why are you teaching financial literacy/economics?
- How much do you think that the government and Ministry of Education and Research is emphasizing students' financial education compared to other subjects? Is it enough?
- Do you think financial literacy should be taught more thoroughly in school? Please explain, why/why not?
- How have you tried to improve students' financial attitude?

Questions about behaviors:

- Do you think that young adults graduating high school save and invest enough money? Please explain, why/why not?
- Why do you think most students do not keep track of their expenses & income and have no budget?
- What is the impact of the Student Company program on students' financial literacy?

Interview questions for the students:

Background questions:

- What is your age and your sex (Voomets, 2020)?
- How many economics and finance classes did you have in high school?

Questions about attitude:

- Are you interested in economics and business? Please explain, why/why not?
- Was the economics class interesting and relevant to you?
- How do you feel, how effective was the course in terms of real-life habits and skills?
- How would you describe your economics class teaching style and are you satisfied?
- Do you think it is important to control monthly expenses (Rahandusministeerium, 2019)? Please explain why/why not?
- Do you think it is important to set financial targets for the future (Vieira, Potrich & Mendes-Da-Silva, 2018)? Please explain, why/why not?
- Is it important to stay within a budget (Vieira, Potrich & Mendes-Da-Silva, 2018)? Please explain, why/why not?
- Is it important to invest regularly to achieve targets in the long term (Vieira, Potrich & Mendes-Da-Silva, 2018)? Please explain, why/why not?
- Do you think financial literacy should be taught more thoroughly in school? Please explain why/why not?
- If so, what would you like to study more?

- Who or what in your life has had the most impact on your financial literacy and how?

Questions about behaviors:

- Have you changed your behavior in any way after completing the economics course?
- Do you think saving money on a monthly is important (Vieira, Potrich & Mendes-Da-Silva, 2018)? Please explain, why/why not?
- Do you track your income and expenses?
- Do you follow a monthly plan for your expenses?
- Have you saved any money during the last 12 months?
- Are you satisfied the way you control your money (Vieira, Potrich & Mendes-Da-Silva, 2018)? Please explain, why/why not?
- Do you analyze your financial situation before a major purchase? Please explain why/why not?
- Did you participate in the Student Company program? If yes, what did you learn from that experience?
- How many financial/business books have you read?
- Have you tried investing your money anywhere? Please explain, why/why not?
- Do you regularly invest your money anywhere? Please explain, why/why not?
- If you had 1000€ how would you spend it? How about 10 000€and 1 000 000€?

Appendix B

How would you spend 1 000/10 000/1 000 000 euros?

Participant no.	1000€	10 000€	1 000 000€
1	1000 into savings	10k lend out	500k savings, 350k give family, 150k personal real estate
2	700 into savings, 300 everyday expenses	5k buy a car, 5k into savings	950k savings, 25k buy a car, 10k rent an apartment, 10k travel, 5k buy sporting equipment, educate myself on investing
3	1000 into savings	7k into savings, 3k invest	500k rental real estate, 350k invest into stocks, 120k personal real estate, 30k buy a car
4	1000 into cryptocurrency	7k into cryptocurrency, 3k into savings	800k rental real estate, 100k into cryptocurrency, 80k savings 20k travel
5	900 into cryptocurrency, 100 everyday expenses	7k invest, 3k buy a car	800k index funds, 150k buy rental real estate, 20k pay for college, 20k buy a car, 10k rent an apartment
6	1000 invest into cryptocurrencies	9k into cryptocurrencies, 1k savings	400k rental real estate, 400k stocks 100k found an enterprise, 100k cryptocurrencies
7	1000 into savings	8k personal real estate deposit, 2k buy a car	900k long-term invest, 100k savings, hire a financial consultant, 680k invest,
8	1000 into savings	10k personal apartment deposit	200k give to family, 100k personal real estate, 20k car
9	1000 buy a car	5k savings, 4k everyday expenses, 1k give parents	700k savings, 200k give parents, 50k buy apartment, 25k buy a car, 5k travel
10	400 into savings, 400 invest into crypto, 200 everyday expenses	9k savings, 1k invest, 1k everyday expenses	980k bank deposit, 10k savings, 10k everyday expenses
11	700 into savings, 300 everyday expenses	7k savings, 3k give parents,	1M solar panel park

12	1000 into savings	8000 savings, 2000 car	600k savings, 300k personal real estate, 50k solar panel park, 30k give parents, 20k car 250k rental real estate, 250k stocks, 200k savings,
13	1000 buy a computer	5000 buy a car, 3000 into savings, 2000 everyday expenses	250k personal real estate, 20k give parents, 20k buy a car, 10k project car
14	500 invest into crypto, 500 everyday expenses	personal apartment deposit	850k savings, 150k personal apartment

Source: compiled by the author based on interview findings

Appendix C
Interview coding table

Themes	Codes	Participants	Category	
Theme 1: <i>The attitudes towards financial education and literacy</i>	*Interested in economics/finance	1, 3-6, 9, 11, 12, 13	Positive sides	
	*Wants to study economics/finance	1, 3, 5, 6,		
	*Important to track expenses & income	1-14		
	*Saving money is important	1, 2, 3, 4, 5, 6, 8-14		
	*Having a budget is necessary	2, 4, 5, 6, 8-14		
	*Everybody should regularly invest money	1, 3, 5, 8, 9, 11-14		
	*Wants to be financially free some day	1, 3, 4, 5, 6, 13, 14		
	*Has written down financial goals	5, 6, 13		
	*Happy with current money management	1, 3-8, 10-12, 14		
	*Parents have been the biggest influence	2, 3, 5-12, 14		
*Books/online figures have influenced	1, 4, 5, 6, 13	Negative sides		
*Does not know much about investing	1, 2, 7-11, 13			
	*Not happy with current money management	2, 9, 13		
Theme 2: <i>The behaviors of financial literacy and personal finance</i>	*Tracks income & expenses regularly	1, 4, 8, 11, 12	Positive sides	
	*Follows a budget	1,		
	*Has tried investing with small amounts	3, 4, 5, 6, 10		
	*Has saved money during last 12 mo.	1, 3-6, 8, 9, 11-13		
	*Invests money regularly	4,		
	*Analyzes situation before a bigger purchase	1, 3, 4, 5, 6, 7, 8, 10-14		
	*Has voluntarily read finance books	3, 4, 5, 6, 7, 13, 14		
	*Participated in Student Company program	3-6, 8, 9, 11-14		
	*Does not know what to do with spare money	1, 2, 7, 9, 13		Negative sides
	*Occasional impulsive online shopping	1, 2, 9,		
*Does not track income & expenses regularly	2, 3, 5, 6, 7, 9, 10, 13, 14			
*Does not follow a budget	2-14			
Theme 3: <i>The state of current economics classes in school</i>	*Teaching style was excellent	3, 5, 6, 11, 12, 14	Compulsory economic classes	
	*Course was interesting	3, 5, 6, 11, 12, 14		
	*Have not changed behavior after course	3, 5, 12, 14		
	*Have changed behavior after course	6, 11,		
	*Too much theory, too broad	3, 5, 6, 14		
	*Few practical outputs	3, 5, 6, 14		
	*Volume was too small	3, 5, 6, 11, 12, 14		
	*Distance learning is ineffective	4, 5, 6, 11, 14		
	*Did not participate	1, 2, 4, 7-10, 13		
	*Have changed behavior after the courses	3, 5, 10, 14		Elective finance classes
*Course was interesting	1, 3, 4, 5, 7, 10, 14			
*Many practical topics	1, 3, 4, 5, 7, 10, 14			
*Student Company program was useful	3-6, 8, 9, 11-14			
*Did not participate	2, 8, 9, 11, 12, 13			
Theme 4: <i>Future</i>	*Make economics compulsory for all	1-14		
	*Bigger volume	1, 4, 5, 6, 11, 12, 14		

<i>recommend</i>	*Focus on personal finance	1-14
<i>ations</i>	*Focus on investing	2, 4, 5, 6, 11, 14
	*More practical real-life exercises	1, 3-5, 9, 11, 12, 14
	*Compulsory reading on finance/economics	4, 5, 6,

Source: compiled by the author based on interview findings

Resümees**EESTI ÕPILASTE FINANTSALASED HOIAKUD JA KÄITUMINE VÕRU
GÜMNAASIUMINÄITEL**

Rodny Verner Reeder

Käesoleva töö eesmärgiks oli uurida Eesti õpilaste finantsalaseid hoiakuid ja käitumist Võru Gümnaasiumi näitel. Autor uuris finantskirjaoskuse, finantsariduse ja hoiakute ning käitumise kohta teaduslikku kirjandust ja võttis kokku Eestis varasemalt läbi viidud uuringud, et anda hetkeolukorrast ülevaade. Kvalitatiivne uuring viidi läbi 14 Võru Gümnaasiumi õpilase ja 2 õpetajaga. Õpilaste finantsalast käitumist analüüsiti majandustundides osalemise, soolise erinevuse ja majanduse huvi ja õpilaste eeskujude kaupa, mille põhjal tehti järeldused mida võrreldi varasema kirjanduse ja uuringutega.

Töö põhitulemustena võib välja tuua, et kuigi õpilaste finantsalased hoiakud on väga head, siis kahjuks ei peegeldu need nende käitumises. Puuduliku käitumise taga leiti kolm suuremat seost:

- majandustunde läbinud õpilastel oli parem finantsalane käitumine enda rahaasjade jälgimise, säästmise, eelarve pidamise ja investeerimise osas,
- finantskäitumine omandatakse ka eeskujudelt, näiteks vanematel on väga tähtis roll enda laste finantsariduse kujundamisel, näidates eeskuju ja head finantskäitumist,
- paljud õpilased kes ei jälginud enda rahaasju, säästnud, pidanud eelarvet ega investeerinud, mainisid reaalse vajaduse puudumist, mida põhjendati sellega, et elati veel vanematega ja igakuist tulu ega püsikulusid neil polnud.

Toetudes varasemale kirjandusele ja uuringutele ning õpilaste ja õpetajate intervjuude tulemustele, andis autor enda poolseid soovitusi. Koolis võiks rohkem tähelepanu pöörata eraisiku rahandusele ning korraldada kursusi nii, et neil oleks praktilised väljundid, mida saab igapäevaelus rakendada ja selle läbi parandada õpilaste finantsalast käitumist. Samuti peaks finantskirjaoskust lõimima rohkematesse ainetesse, mitte käsitlema kui eraldiseisvat ainet.

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ESTONIAN STUDENTS' FINANCIAL ATTITUDE AND BEHAVIOR BY THE
EXAMPLE OF VÕRU GYMNASIUM

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Rodny Verner Reeder
13/05/2021