

Chapter 6

Financial education in the Netherlands

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6.1 Introduction

According to the Organization for Economic Co-operation and Development (OECD, 2014), financial literacy is widely seen as an essential skill to function in an increasingly complex society and therefore a crucial part of any education that prepares for such a society (Amagir, Maassen van den Brink, Wilschut & Groot, 2018a). Financial *illiteracy* is considered a problem, both in developing and developed countries. Debt brings with it substantial costs, not only for the individual who is in debt (debtor) but also for society as a whole. Financial management among households appears to be a particular matter of concern. About one in five Dutch households are in problem debt or at high risk of developing problem debt (Westhof, De Ruig & Kerckhaert, 2015). The vast majority of these households require professional help to alleviate their situation. The economic crisis certainly played a role in the growth and expansion of this debt problem. However, it is increasingly recognized that irresponsible financial behavior and poor financial skills are also major causes for the emergence of debt (Dam, Klaver, Van der Weijden, & Witte, 2014). Moreover, there are approximately 2.5 million functional illiterates in the Netherlands (Social and Economic Council of the Netherlands, 2019). Functional illiteracy is often a cause of problem debt (Madern, Jungmann, & Van Geuns, 2016). Among people with financial problems, 50.3% experience great difficulty with reading (Keizer, 2019). Financially vulnerable groups are at greater risk of problem debt. However, we are currently noticing not only an increase but also an expansion of the groups that end up in debt. After all, anyone can be confronted with unexpected events in life. According to a study by the National Institute for Family Finance Information (NIBUD) 2017), one in five households in the Netherlands does not have any form of savings, and one in three households indicates that it is unable to absorb unforeseen expenses. Among the young, one in three young adults does not have sufficient savings to absorb unforeseen expenses (Rabobank, 2018).

There is a good chance that these groups will end up in debt in the event of setbacks such as work disability, unemployment or a divorce. What makes this even more worrying is the fact that we live in a society that expects people to be financially self-sufficient. This can be very challenging, as people are faced with more financial choices than before. In the past, the options were more self-evident and clear-cut; that is very different today (choice overload). In addition, technological developments are having a big impact on the way in which we manage money and make financial decisions. These developments offer new opportunities, but also new challenges for people who cannot keep up with them (*Wijzer in geldzaken*/MoneyWise, 2019). Moreover, the temptations are many in today's

society (e.g., online shopping). The financial landscape is changing and the variety and complexity of financial products and services available to consumers is increasing (Lusardi & Mitchell, 2014).

The financial situation of young people is often a cause for concern, too. The proportion of Dutch youth (under 26) who are in debt and requesting debt counseling is growing: from 9 percent in 2008 to 15 percent in 2013 (Madern, 2014). In the Netherlands, 42% of 18 to 24-year-olds have at least one form of debt, loan or overdue payment (Madern, 2014). However, only 28% of 18 to 24-year-olds with an overdue payment are aware that they have a financial problem. Of all young people in debt, the ones with student loans are least aware of a financial problem (Van der Schors & Van der Werf, 2014).

Finances are part of the daily life of young people. They are consumers of financial services, such as bank accounts with the possibility of online banking (OECD, 2017). Furthermore, today's youth is growing up in a society where the financial landscape is increasingly becoming more complex and governments are placing more financial responsibilities on citizens. A clear example of this in the Netherlands is the change in the national study grant system. The basic study grant is replaced by a study advance which allows students to borrow an amount equal to the basic grant. Because of this, young people run a higher risk of having high debts after they graduate. Such debts can impede their ability to amass wealth (Lusardi, Mitchell, & Curto, 2010). Wrong financial decisions at a young age can have major effects in later life for the person concerned as well as for the household of which they are part. This, in turn, affects the economic and financial stability of the country as a whole (OECD, 2014, p. 26).

In many parts of the world, all of the above has led to the recognition that financial education is an absolute necessity. Financial education in secondary school can help youngsters meet the beforementioned challenges and prepares them for their role as financially independent adults. Generally, the main purpose of such financial education is to lay the groundwork for a greater understanding of financial matters and to introduce students to the financial world, which will be useful after they graduate from secondary school (Walstad, Rebeck & MacDonald, 2010). The Organization for Economic Cooperation and Development (OECD), stresses the importance of financial education at a young age (OECD, 2014). "Bruhn, Souza Leao, Legovini, Marchetti, & Zia (2013) emphasize that such a focus on young people is appealing and relevant for several reasons. Learning good financial habits at a young age can have a positive effect later in life in terms of professional education, employment and achieving a good standard of living. Young people are required by law to attend school. This makes them an easy-to-reach target group, in contrast to adults, among whom the turnout for financial education programs is generally low. Young people who are still in school are geared to learn new skills and accumulate knowledge. As such, they are well-prepared to learn, understand and implement new financial concepts and skills. Once they are financially well-informed, they can make their own financial choices."

According to Atkinson and Messy (2012), governments around the world are interested in finding effective approaches to improve the level of financial literacy among their population. Many of them are in the process of creating (or already implementing)

a national strategy to provide financial education opportunities throughout a person's life, embedding financial literacy education in the curricula of primary, secondary and higher education. This fits with educational goals that focus on the development of active citizenship. Citizenship implies independence, freedom and responsibility on the part of the citizen. In a culture that demands individual responsibility and self-sufficiency, financial literacy is an essential component of a successful adult life (Amagir et al, 2018a). During the transition from adolescence to young adulthood, individuals must acquire the knowledge, skills, values, and attitudes needed to become self-sufficient (Shim et al. 2010). Self-sufficiency, initiative and responsibility are key competencies for citizenship among young people. Competencies such as self-reliance and self-sufficiency are not only necessary in public life, for instance in the labor market, but also in one's personal life. Although financial literacy primarily concerns the personal finances of an individual, it also has an effect on the public domain.

6.2 Literacy, financial literacy and financial education: definitions

'Literacy' is a complex concept that is defined and understood in different ways. UNESCO (2005) states that the most common understanding of literacy is that it is a set of tangible skills – particularly the cognitive skills of reading and writing – that are independent of the context in which they are acquired and the background of the person who acquires them (p.149). In short, literacy means: to be able to read and write. Consequently, it also means that through reading and writing, one can become acquainted with contexts other than one's own. An 'illiterate farmer,' for instance, is not only unable to read and write, but also unaware of the content of written texts. According to UNESCO (2005), the term literacy is therefore increasingly used in a broader, metaphorical sense to refer to one's general knowledge about contexts that are important in life. To be literate, then, means that a person is sufficiently knowledgeable about the main aspects of a certain area or context to adequately hold their own in it. The term 'literacy' is applied in a variety of contexts. Hence our use of the term 'financial literacy'. However, it always refers to the general knowledge required to be an informed and involved citizen, never to specialist scientific knowledge. It is typically a term used to describe content that should be part of one's basic education. As Lusardi (2008) states, individuals need to know how to 'read and write' financially, given the complexity of financial instruments and the financial decisions required in everyday life.

An important shift has taken place in the general understanding of what constitutes a 'literate' citizen. More types of literacy are being distinguished than before. The ability to understand written texts and make mathematical calculations used to be sufficient for a person to cope on the workplace and in society. Nowadays, these skills are only the starting point for mastering '21st century skills'. The World Economic Forum (2015) has concluded that there is a global focus on 21st century skills in primary and secondary schools. One of the skills included in this category is financial literacy. In the Netherlands, the Education Council advised a re-evaluation of the secondary education curriculum

based on these 21st century skills. The Council concluded that the curriculum is overloaded and fragmented and includes insufficient cross-sectoral reviews. Existing core goals proved to be outdated and no longer in line with our changing society. Under the heading *Curriculum.nu* (2019), the curriculum of basic education in the Netherlands is currently being reviewed.

6.2.1 Financial literacy and financial education

The OECD (2014) defines financial literacy as: “*the knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life*” (p. 33). This is in line with Huston (2010), who states that financial knowledge is an integral dimension of, but not equivalent to, financial literacy. Amagir, Wilschut and Groot (2018b) state that the construct referred to as ‘financial literacy’ is composed of financial knowledge, attitudes towards money and financial behavior. Their definition of financial literacy therefore distinguishes three components: (1) financial knowledge; (2) attitudes towards money and financial self-efficacy; and (3) financial behavior (Amagir et al., 2018ab). Attitudes towards money and financial self-efficacy refer to the beliefs people have about themselves in the context of finances, while financial behavior refers to their actual – deliberate or unintentional – behavior (Amagir et al., 2018b). Financial education can be defined as teaching that is intended to result in financial literacy in the wider sense used by the OECD (2014). The ultimate goal of financial education is to empower and motivate people to change their financial behavior, inducing them, for instance, to make well-considered financial decisions (Amagir et al., 2018a).

As yet, no conclusive evidence is available with respect to the effect of financial education. Based on a systematic literature review, Amagir et al. (2018a) assert that school-based financial education programs can improve children’s and adolescents’ financial knowledge and attitudes. However, studies that assess the effects of financial education on children’s and adolescents’ actual financial behavior are scarce and show hardly any effect. Fernandes, Lynch, and Netemeyer (2014) report in a meta-analysis that the effects of financial education interventions on financial behavior are small. On the other hand, the meta-analysis by Kaiser and Menkhoff (2018) shows that financial education significantly impacts financial behavior and, to an even larger extent, financial knowledge. In the Netherlands, Kalwij et al. (2019) found a 45- minute financial education program in the form of a Cash Quiz game, administrated during the Dutch Money week, to improve fifth and sixth graders’ financial knowledge and willingness to save for a desired product. However, the program appears to be primarily driven by the results for girls. Amagir et al. (2019) found a financial education program called “SaveWise” to improve high school students’ financial knowledge and skills, awareness, attitudes, self-efficacy, and (savings) behavior. Concerning behavior, their findings show that students have become more committed to meeting their savings goal, budgeting, and spending less. The financial education program SaveWise consists of 8 lessons of 50 minutes that focuses on learning

outcomes in the context of the competencies ‘spending money responsibly – making choices’ and ‘taking account of future wishes and circumstances – saving and planning’ (Amagir et al., 2019).

6.2.2 Financial literacy levels

Research seems to indicate that the financial literacy of adults and young people is wanting. Lusardi and Mitchell (2007) have reviewed financial literacy throughout the world. They found that financial illiteracy occurs in many developed countries, such as Australia, Japan and Korea, as well as in the developed countries in Europe. This conclusion is confirmed in a follow-up study (Lusardi and Mitchell, 2014) in which they examined financial literacy among adults in eight different countries: the Netherlands, Germany, Italy, Russia, Sweden, New Zealand, Japan and the United States. Based on similar results in these countries, they conclude that consumers tend to have little knowledge of basic financial concepts. They also assert that financial literacy is a strong determining factor for participation in pension schemes and plans. This assertion is based on a study of three aspects of the wider concept of ‘financial literacy,’ as part of which they asked three simple questions to come up with what they believe is a reliable outcome. These questions were intended to determine the respondents’ level of 1) general arithmetic proficiency and the skill to perform calculations with respect to interest, such as compound interest; 2) understanding of the concept of inflation; and 3) understanding of the concept of risk diversification. These are fundamental concepts which underlie decisions on savings and investments throughout one’s life. In the Netherlands, only 46 percent of all adults proved to be able to answer all three questions correctly. Compared with the other countries that were part of the study, only Germany does better with 57%. Lusardi and Mitchell (2014) based their questions on intertemporal models relating to financial decision-making: if you consume more and save less now, you will have less money to spend later. According to Schuhen and Schurkmann (2014), however, it is doubtful whether the decision-making process that is tested in the study by Lusardi et al (2014) can be attributed to ‘domain knowledge’. The study primarily tests general arithmetic skills. This is particularly true for the first question, which concerns the calculation of an interest amount. Moreover, it is unclear whether the *application* of the knowledge is actually tested.

6.2.3 Financial literacy levels among Dutch students

The results among young people are similar to those among adults. The OECD (2014, 2017), which defines financial literacy not only in terms of knowledge and understanding, but also considers the way in which that knowledge is applied, has examined the financial literacy of 15-year-olds in 18 different countries, looking at their knowledge of personal finances and their ability to apply that knowledge to financial problems. As part of the Program for International Student Assessment (PISA), the OECD conducted a second financial literacy assessment among approximately 48,000 15-year-olds in 15 OECD countries and partner economies (OECD, 2017). As shown in Table 1, students in the

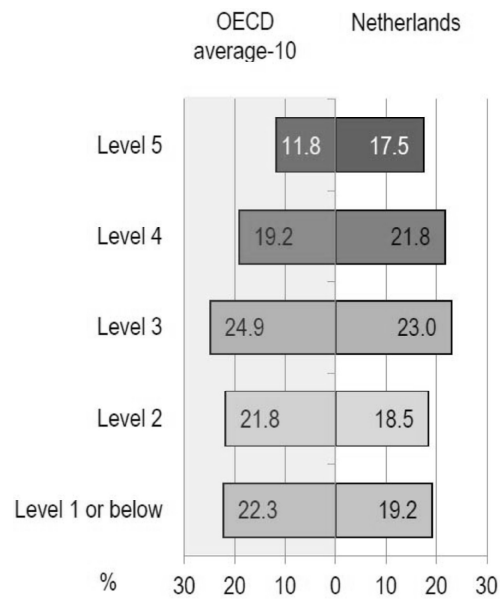
Netherlands score above the OECD average (OECD, 2017). Among the 15 participating OECD countries, the Netherlands ranks between fourth and sixth place with an average mean score of 509 points. In Figure 1, students' proficiency levels are shown for the Netherlands. The top performers (level 5) in financial literacy (17.5% of the Dutch students) can analyze complex financial products, solve non-routine financial problems and show an understanding of the wider financial landscape. On the other hand, the low performers (19.2% of the Dutch students) do not reach the baseline proficiency level (level 1) in financial literacy. These students can, at best, identify common financial products and terms, recognize the difference between needs and wants, and make simple decisions with respect to everyday spending in contexts that they are likely to have experienced personally (OECD, 2014).

Table 1. Mean performance in financial literacy among the OECD countries (OECD, 2017).

| Mean performance in financial literacy | | | | |
|--|------------|----------------|------------------------|-------------|
| | Mean score | Range of ranks | Percentage of students | |
| | | | Below Level 2 | Level 5 |
| OECD avg-10 | 489 | | 22.3 | 11.8 |
| B-S-J-G (China) | 566 | 1 - 1 | 9.4 | 33.4 |
| Belgium (Flemish) | 541 | 2 - 3 | 12.0 | 24.0 |
| Canadian provinces | 533 | 2 - 3 | 12.7 | 21.8 |
| Russia | 512 | 4 - 5 | 10.9 | 10.5 |
| Netherlands | 509 | 4 - 6 | 19.2 | 17.5 |
| Australia | 504 | 5 - 6 | 19.7 | 15.4 |
| United States | 487 | 7 - 9 | 21.6 | 10.2 |
| Poland | 485 | 7 - 9 | 20.1 | 8.0 |
| Italy | 483 | 7 - 9 | 19.8 | 6.5 |
| Spain | 469 | 10 - 10 | 24.7 | 5.6 |
| Lithuania | 449 | 11 - 12 | 31.5 | 3.7 |
| Slovak Republic | 445 | 11 - 12 | 34.7 | 6.3 |
| Chile | 432 | 13 - 13 | 38.1 | 3.1 |
| Peru | 403 | 14 - 14 | 48.2 | 1.2 |
| Brazil | 393 | 15 - 15 | 53.3 | 2.6 |

Amagir et al. (2017) found large differences in the financial knowledge levels of 15-year-old students from the different Dutch secondary school tracks. These large differences in mean performance are consistent with the findings of the PISA study (OECD, 2017) among 15-year-olds, which show a 39% gap in financial knowledge (312 scored points out of 800) between the 90th and 10th percentiles in the Netherlands. Among the participating countries, the largest gaps in knowledge were observed in the Netherlands and Beijing-Shanghai-Jiangsu-Guangdong (China). Amagir et al. (2017) further show that, among Dutch secondary school students, one's secondary school track is strongly

Figure 1. Students' financial literacy proficiency levels in the Netherlands (OECD, 2017).



associated with attitudes towards money and financial behavior. Dutch students in the lower secondary school tracks view money more as a means of power than their peers in higher secondary school tracks. Furthermore, Dutch students who have mothers with a college degree are associated with higher levels of financial knowledge (Amagir et al., 2018b). Students with a high social SES (socioeconomic status) in the Netherlands are associated with higher financial knowledge scores compared to students with a low SES (Amagir et al. 2017; OECD, 2017). Lastly, there is a gap in financial knowledge scores between immigrant and non-immigrant students in the Netherlands (Amagir et al. 2017; OECD, 2017). No gender differences with respect to financial knowledge scores were found among 15-year-olds (Amagir et al. 2017). This is consistent with the outcome of the PISA study (OECD, 2017), which did not find such gender differences either among 15-year-olds in the Netherlands. However, boys score higher on financial behavior than girls, and tend to be more concerned with money as a status symbol, while girls are more conservative and security conscious (Amagir et al., 2017).

While our own thoughts and beliefs about financial matters (attitude) are important, others' opinions on such matters also play a role. The expectations of others cause us to adapt our behavior (Ajzen, 1991). This is not only true for the expectations of people that are important in the lives of young people, such as family and friends, but also for the expectations of their school. An interesting finding by Amagir et al. (2017) is that there is a positive relation between financial socialization factors (such as discussing money matters with peers and parents or participating in the family's financial decisions) and attitudes towards money and financial behavior. No relation was found with financial knowledge. According to Amagir et al. (2017) financial education at school is only positively associated with higher financial knowledge scores and financial self-efficacy. One explanation for this could be that financial education programs in schools put more emphasis on knowledge than on attitude and behavioral aspects, while the opposite is true for interactions with parents and peers. It is in those interactions that attitude and behavioral aspects are reinforced and shaped. The social environment exerts influence on us in different ways,

for instance by explicitly expressing certain expectations or by imposing rules. However, the influence can also be implicit, for instance by clearly approving or disapproving certain behavior or by setting a good example. If the social environment supports a behavior, there is a good chance that we will want to behave accordingly (Ajzen, 1991).

6.3 Financial education: current situation

In the Netherlands, several organizations are working to embed financial education in the primary and secondary curricula. Various institutions, including the National Institute for Family Finance Information (NIBUD) and *Wijzer in geldzaken/MoneyWise*, have developed educational programs aimed at stimulating financially healthy behavior. The NIBUD helps teachers to discuss this theme in the classroom in a simple manner. As financial education is not an obligatory learning objective, it can be difficult for teachers to find time to spend on it. The NIBUD enables teachers to teach their students, without too much effort, about constructive ways of managing money. It does so by making available the following resources: (1) learning objectives for managing money, organized by level of education and linked to the core objectives and final attainment levels, (2) teaching materials tailored to different levels and types of education, (3) the website *Nibud.nl/scholieren*, where students can find information and take quizzes and tests. *Wijzer in Geldzaken*, or MoneyWise, is a platform where various partners join forces to promote responsible financial behavior in the Netherlands. *Wijzer in geldzaken/MoneyWise* wants to help vulnerable groups prepare for unexpected events and teach children and young people financial skills from a young age. The goal of *Wijzer in geldzaken/MoneyWise* is not only to ensure that children and young people learn such financial skills early on in life, but also to have financial education become a structural part of the school curriculum for all levels and types of education. Every year in March, *Wijzer in geldzaken/MoneyWise* and some of its partners organize a 'Money Week' which takes place at approximately the same time as the Global Money Week. This is a very well-known project week in which about 50% of all primary schools in the Netherlands participate. The core activities during this Money Week consist of guest lectures by professionals from the financial sector (in particular banks and insurance companies). Every year during Money Week, approximately 5000 to 6000 guest lectures are given at primary schools.

A recent survey by *Wijzer in geldzaken/MoneyWise* (2014a) shows that no structural attention is paid to financial education in the existing curricula and that financial skills are only taught occasionally and in a highly fragmented manner. Another survey by *Wijzer in geldzaken/MoneyWise* (2014b) reports that nearly half of the interviewed teens stated that managing money was never discussed at school. In addition, more than three-quarters of the surveyed students said that they found it important to be educated at school about managing money. According to these students, the emphasis should be on personal finances. All schools that were involved in the survey emphasize the importance of financial skills. They consider this an important subject that should be part of the

school curricula (*Wijzer in geldzaken/MoneyWise*, 2014b). In general, it can be said that the necessary competencies for handling money responsibly are not – or rarely – part of the curricula of the Dutch educational system.

Since the spring of 2018, teachers and school leaders have been working in ‘development teams’ on proposals to revise the national core objectives and final attainment levels for primary and secondary schools (Curriculum.nu, 2019). The curriculum revision offers an opportunity to make Dutch education programs more interrelated and more appealing to students. In addition to a solid knowledge base, the proposals suggest various elements that would make Dutch education more meaningful for students and have it be more attuned to future developments. A new, still to be developed, subject area – ‘Social studies’ – will teach students how people can make different choices based on their different roles (e.g. classmate, consumer, citizen or producer) and specific contexts or circumstances. What is the reason behind certain choices and what influences them? The students also learn how people and societies deal with scarcity and distribution issues, and the role institutions such as governments, companies and banks play in this. The curriculum revisions are only a first step towards a new curriculum, still far from being final.

6.4 Educational system

The Dutch educational system consists of the following levels: primary education, secondary education, vocational education and higher education. Below follows an overview for each educational level of the extent to which financial education is included in its existing and new curriculum.

6.4.1 Primary education

The Dutch primary education program (ages 4–12) covers a broad, general area and is based on 52 core objectives (EP-Nuffic, 2015). The following categories of core objectives are at the heart of primary education:

- Dutch
- English
- Mathematics/Arithmetic
- Focus on Oneself and the World (a combination of geography, history and science)
- Creative development
- Physical education

Two of the core objectives incorporate money as a (sub) topic. In Mathematics/Arithmetic, students learn to measure and make calculations using units and measurements such as units of time, currency, length, circumference, surface, volume, weight, speed and temperature. At the primary level, money is a means to learn arithmetic. It is not used to develop financial skills. Money simply offers an enticing way of teaching children how to

add, subtract, multiply and divide (For instance, how many 20-cent apples can you buy for a euro?). In the subject area 'Focus on Oneself and the World', students learn about good citizenship (one of the core objectives). Being self-sufficient and behaving as such as a consumer is a general element of a core objective that only partly touches on financial skills.

The new, still to be developed, curriculum (Curriculum.nu, 2019) mentions the following objectives that are related to learning how to deal with money in the broadest sense. In the *lower* grades, students learn about the decisions people make to meet their needs. They learn how the social environment (parents, friends etc.) influences these decisions and how circumstances play a role in them. Students learn:

- about the difference between habits and conscious choices;
- about the different means of exchange (such as time and money) that are available to meet one's needs;
- about the tension that exists between (infinite) needs and (finite) resources;
- about the influence of others, advertising and the media.

In the *higher* grades of primary school, students learn that decisions can be made either impulsively or deliberately. They learn that resources (such as time, attention, money) are limited, which 'forces' one to choose between them. Their financial awareness grows. Students learn:

- about patterns and habits that affect the behavior of people and how easy or difficult it can be to change such patterns and habits;
- about the differences between various groups in society in decision-making behavior related to consumption (for instance, as a result of differences in income or cultural background);
- about ways to prioritize your decisions and adjust them to the available resources;
- how decision-making behavior is influenced by others (e.g. advertising and social media);
- about the (im)possibilities offered by the physical living environment in relation to choices and decisions.

6.4.2 Secondary education

Secondary education is divided into three main tracks: a four-year pre-vocational track (VMBO), a five-year general secondary track (HAVO), and a six-year pre-university track (VWO). The core part of the curriculum in the seventh, eighth or ninth grade, as described by the Ministry of Education, contains 58 globally formulated core objectives that apply to all students (EP-Nuffic, 2015). Each school determines its own concrete elaboration of the core objectives in subjects, projects, learning areas, or a combination of these (Amagir et al., 2017).

In the secondary tracks, financial education is only provided on an irregular basis as part of existing subjects such as economics and social studies (Amagir et al., 2017). This

generally happens on the initiative of committed teachers who have a personal desire to enhance the financial knowledge and skills of their pupils. Financial education lessons are mostly taught by economic teachers during economics (or social studies) classes. Limited attention is paid to financial education topics such as budgeting or buying goods and services. Teaching priorities with respect to financial education are determined by the school or individual teachers (*Wijzer in geldzaken/MoneyWise*, 2014b). The content of any provided financial education is usually highly theoretical and mostly fails to correspond to the financial behavior of the students themselves. There is some overlap between financial education and the subject of economics. However, financial education pays explicit attention to topics related to financial decisions (e.g. career choices, saving, investing, budgeting, insurance) and other matters that are important to one's functioning within a modern financial system, linking them to the different roles of young people that influence their decisions. As Roberts (2012, p. 12) states, financial literacy is a set of important life skills and economics is the glue that holds them together.

The Teulings-1 Committee (Teulings, 2002;2005) defines the objective of the subject of economics for the higher levels of secondary education (HAVO/VWO) as “understanding economic phenomena by developing an economic perspective”. The Committee writes: “*The subject of economics prepares students for adequate participation in social and economic interactions. This means that students learn to understand the economic phenomena in society with the help of main economic principles (.....), phenomena with which they will be faced as part of their various roles in households, businesses or government institutions, and which influence the decisions they need to make, consider or deal with as a member of society on both a national and international level.*” (Teulings, 2005, p. 18). This requires more of students than merely an economic perspective. In the end, what matters most are the decisions they will be faced with in their various roles. McCormick (2009) stresses that the subject of economics offers good opportunities for financial education as economists traditionally seek outcomes at the micro and macro level that lead to financial prosperity. This is especially true for the subject of economics as it is taught at the higher levels of secondary education (HAVO/VWO).

The Innovation Committee Management and Organization (M&O), chaired by professor Arnoud Boot, has taken the first step to incorporate financial education in the curricula. As of 2018, students in the general secondary track (HAVO), and the pre-university secondary track (VWO) have the option of choosing business economics – including financial literacy – as a final exam subject. The Committee has added various subject domains to the curricula. One of these domains explicitly aims to teach students personal financial awareness, increasing their understanding and skills, so they will be able to exhibit financially responsible behavior, both on a personal level and on behalf of any organizations in which they are involved (SLO, 2014). Unfortunately, the topic of financial literacy is addressed in a highly theoretical manner.

The development teams of Curriculum.nu (2019) mention the following objectives that are related to learning how to deal with money in the broadest sense. Teaching students to make and use budgets and showing them how their decisions affect their environment and what role the government plays in this. Students learn:

- that resources can be inventoried and adjusted to needs (e.g. making a budget for income and expenses and making a time schedule);
- that decision-making behavior is not always rational;
- about the influence of the government and government policies on decision-making behavior;
- about uncertain consequences of choices and decisions, and the impact of this on decision-making behavior (e.g. risk and insurance);
- about the effect of one's (uncertain) income position on decision-making behavior (e.g. risk of unemployment in relation to savings);
- MBO (about the price and proceeds of borrowing and saving).

6.4.3 Vocational education and higher education

MBO (Middelbaar Beroeps Onderwijs) is the abbreviation for secondary Vocational Education and Training (VET) in the Netherlands (MBO Raad, 2013). Vocational secondary education is a form of education that offers vocational training to students between 16 and 20 to 22 years of age. In other words, the students generally enter into employment after they graduate. The MBO sector consists of 70 VET colleges comprising multidisciplinary VET colleges (ROCs in Dutch), agricultural VET colleges (AOCs in Dutch) and specialized vocational colleges (MBO Raad, 2013). At VET colleges, hundreds of different vocational courses are offered, ranging from training to become a carpenter or cashier to courses that prepare the student to become a secretary or gardener. For the largest part, the educational program is vocational; only a small part of the subjects concerns general knowledge: Dutch, arithmetic and citizenship. During the subject of 'citizenship' (an average of 1 hour per week), students receive instruction in four domains: social, political, healthcare and economics. However, economic citizenship only accounts for a small proportion of the curriculum. It is mostly addressed within 'Critical Consumption,' which is part of the citizenship curriculum. Moreover, the way in which MBO schools give shape to the citizenship curriculum is not subject to government regulation, review or examination. As a result, there is a wide variety in the quality of citizenship courses. In other words, students at vocational school learn little to nothing about managing money. The same is true for higher education, where financial education is currently not a part of the curriculum.

6.5 Extra-curricular initiatives

Since 2008, an effort has been made, as part of the national strategy for financial education, to collect and provide financial education materials via the *Wijzer in geldzaken*/MoneyWise website. These materials are used by teachers and schools on a voluntary basis. An increasing number of organizations are providing additional financial education materials to schools. *Wijzer in geldzaken*/MoneyWise develops and provides teaching material about managing money. There are lesson plans for each primary education grade.

Per grade, 4 instruction sheets with digital components are offered. These lesson plans find their way to about 30–40% of all primary schools. Often used teaching materials include the Cash Quiz, published by the Dutch Banking Association (NVB), ‘Fix your risk’ by the Dutch Association of Insurers, and the Euro-Wise instruction sheets issued by the Volksbank. An overview of extra-curricular initiatives and their learning outcomes in primary education can be found in figure 1 (Appendix 1). A description of the content of these extra-curricular initiatives can be found in appendix 2.

For secondary education schools, various parties have developed material for financial education, targeting students between the ages 12–18. In Figure 2 (Appendix 3) you can find the learning objectives and the content (Appendix 4) of extra-curricular initiatives targeting secondary education. Further information about these initiatives can be found at the website of *Wijzer in geldzaken*/MoneyWise. Notably, the lessons on managing money are additional, that is to say, they are not obligatory. It is up to the school or teacher to provide them. These lessons do not end in an exam.

6.6 Conclusion

Despite the importance of financial literacy, financial education is not systematically embedded in school curricula in the Netherlands. However, the need to include financial education in these curricula is increasingly being recognized – not as a separate subject, but as part of existing subjects. Furthermore, certain population groups are disadvantaged by having a lower financial knowledge score and do not possess the attitude required to implement this knowledge of daily financial decision making. Financial education in schools is needed to ensure more equal opportunities for learning. A ‘one size fits all’ approach may not be effective because of the heterogeneity. The large differences between secondary school tracks and between immigrant and non-immigrant students may need to be tackled early on. Furthermore, the influence of financial socialization actors needs to be addressed in financial education programs by targeting young people and their parents at the same time.

Research on the determinants of financial literacy shows that the construct is neither one-dimensional nor determined by one specific cause (Förster, Happ, Walstad, and Asarta, 2018). To ensure healthy financial behavior, financial education programs should adopt a holistic approach and address a broad variety of influencing factors (Amagir, Wilschut, and Groot, 2018a). Also, more research into the effectiveness of financial education programs in the Netherlands is needed.

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| <i>Program</i> | <i>Provider</i> | <i>Grade</i> | <i>Learning outcomes</i> | | | | | | | | | |
|---|-------------------------------------|--------------|--------------------------|------------------|-------------------------|----------------------------|--------------------------------|----------------------------------|------------------------|-------------------------------|----------------------------|---------------------------------|
| | | | <i>Saving</i> | <i>Budgeting</i> | <i>Comparing prices</i> | <i>Coins and banknotes</i> | <i>Percentage calculations</i> | <i>The effect of advertising</i> | <i>Loans and debts</i> | <i>Interest and Insurance</i> | <i>Risks and Investing</i> | <i>Knowing how a bank works</i> |
| 8. Gratis geld bestaat niet! | Media Rakkers Foundation | 2-4 | | | | | | x | | | | |
| 9. Help ik heb geld (Help, I've got money) app | Dutch Banking Association (NVB) | 5-6 | x | | | | | | x | | | x |
| 10. Hoe word ik rijk? (How does one become rich?) | DNB Central Bank of the Netherlands | 5-6 | x | | x | | | | | x | | x |
| 11. Huisje Boompje Beestje (Home Sweet Home) | NTR School Television | 1-2 | x | | | | | | x | | | |
| 12. Klasse!Kas (Class Fund) | Bureau voor Levend leren | 5-6 | x | x | x | | | | | | x | x |
| 13. Leren omgaan met geld | Klasse TV (Class Television) | 1-6 | x | x | x | | | | x | | x | |
| 14. Teaching materials Insurance | Dutch Association of Insurers | 5-6 | | | | | | | | | | x |
| 15. The NIBUD Money Exam | Deloitte | 5-6 | x | x | x | | | | x | | x | x |

| <i>Program</i> | <i>Provider</i> | <i>Grade</i> | <i>Learning outcomes</i> | | | | | | | | | | | | | |
|---|------------------------------|--------------|--------------------------|------------------------|-----------------------------------|--|--|----------------------------|--|--------------------------------|---|--------------------------------------|---|---|---|---|
| | | | <i>Saving</i> | <i>Budget- ing</i> | <i>Com- paring prices</i> | <i>Coins and bank- notes</i> | <i>Percent- age calcula- tions</i> | <i>Payment methods</i> | <i>The effect of advertis- ing</i> | <i>Loans and debts</i> | <i>Interest and In- surance</i> | <i>Risks and In- surance</i> | <i>Know- ing how a bank works</i> | | | |
| 16. Digibord 'Omgaan met geld' (Interactive whiteboard lessons 'Managing Money') | Malmberg Method | 2-6 | x | x | x | x | x | x | x | x | x | x | x | x | x | x |
| 17. Prinsjesdag | Dutch Ministry of Finance | 5-6 | | x | | | | | | | | | x | | | x |
| 18. SpangaS leergeld | NTR School Television | 5-6 | x | x | | | | | | | | | | x | | x |

Figure 1. Extra-curricular initiatives and learning outcomes in primary education

Appendix 2

Content extra-curricular initiatives in primary education

1. Een held met je geld (Be a Money Hero)

This program addresses the decision-making process and the fact that money can only be spent once. www.geldlessen.nl

2. Aan de slag met de euro (Working with Euros)

The teaching material aims to teach children to recognize euros and perform calculations with them.

3. Money-related soap opera ‘Alles heeft zijn prijs’ (‘Everything comes at a price’)

‘Everything comes at a price’ is a money-related soap opera and gives students insight into wisely or foolishly saving and/or spending their income. (*Five episodes*)

4. BizWorld Vakantie eiland (BizWorld Vacation Island)

This program challenges students to design a commercially successful vacation island. Students work in teams. (4 half-day sessions)

5. BizWorld Pop-Up Store

During this program, students run their own company. (4 half-day sessions)

6. Eurowijs (Euro-Wise)

The goal of Eurowijs/Euro-Wise is to introduce students to the concept of money and the Euro.

7. Fix je risk (Fix your risk)

During this guest lecture, a board game is used to discuss matters such as: Who has ever been robbed of something? If something was stolen from you, how did you replace the stolen item (e.g. A bicycle)? Is insurance always the best solution? When do you insure something and when don't you?

8. Gratis geld bestaat niet (There is no such thing as free money) & Reclame Masters (Advertising Masters)

The goal of this course is to teach children the skills they need to understand and interpret (social) media and advertising. This will enable them to develop into critical and conscious young consumers.

9. Help ik heb geld (Help, I've got money) app

This is an app that aims to introduce children to matters related to money and banking in a playful and exciting manner. The answers of the class are compared with those of their peers and form a good starting point for a discussion about managing money.

10. Hoe word ik rijk? (How does one become rich?)

This program makes children think about the choices that are available to them, and the financial consequences of those choices.

11. Huisje Boompje Beestje (Home Sweet Home)

Two episodes of this school television series concern money matters. In the first episode, the main character Raaf (Raven) discovers that money can only be spent once. He learns to make choices and how to save. The episode ‘Zakgeld’ (‘Pocket Money’) is about the value of money. (2 episodes).

12. Klasse!Kas (Class Fund)

Klasse!Kas uses a playful approach to teach children how to deal with money. The Class Fund contains money that can be managed and spent by the class itself. The children consult with each other about budgets, activities to earn money and responsible spending.

13. Leren omgaan met geld (Learning how to deal with money)

This digital lesson plan primarily addresses the social-emotional development of students with respect to managing money.

14. Teaching materials Insurance

The material introduces students to the concept of insurance. How do you recognize risks and how do you deal with them?

15. The NIBUD Money Exam

The Money Exam teaches children to manage their money responsibly and prepares them for secondary school, where they will be faced with a lot of temptations and complicated money matters (e.g. lunch money, school trips, clothing allowance, telephone costs). A money diploma is awarded upon passing the exam.

16. Digibord ‘Omgaan met geld’ (Interactive whiteboard lessons ‘Managing Money’)

linked to De Wereld in getallen or Pluspunt. IWB lessons linked to the teaching method of De Wereld in getallen (The world in numbers) or Pluspunt (Plus Point) issued by Malmberg Publishers. (7 lessons per academic year).

17. Prinsjesdag (Royal Address Day)

Every year, the Dutch Ministry of Finance makes available teaching materials for primary and secondary schools on topics such Prinsjesdag (Royal Address Day), taxes and public finances.

18. SpangaS leergeld (SpangaS tuition)

SpangaS is a Dutch television series that revolves around the lives of a group of students at Spangalis College. Five episodes of this series center on elements of financial education. In the context of the main narrative, various financial topics are addressed: saving, loans, pocket money, the influence of advertising, and adapting expenses to income.

Appendix 3

| Program | 1. <i>C(r)ash,</i> <i>omgaan</i> <i>met geld</i> | 2. <i>Edgie</i> <i>the</i> <i>Movie</i> | 3. <i>Geld</i> <i>moet</i> <i>rollen</i> | 4. <i>Ik &</i> <i>Geld</i> | 5. <i>Theater</i> <i>Group</i> <i>Play-</i> <i>Back</i> | 6. <i>Junior</i> <i>Compa-</i> <i>ny</i> | 7. <i>Leren</i> <i>omgaan</i> <i>met geld</i> | 8. <i>Money</i> <i>Matters</i> | 9. <i>Prinsjesdag</i> | 10. <i>Hoe</i> <i>word je</i> <i>rijk?</i> | 11. <i>YES!</i> | 12. <i>Money</i> <i>Ways</i> |
|--|---|--|---|--------------------------------------|---|---|--|--------------------------------------|--------------------------|---|--------------------|------------------------------------|
| Comparing products and prices | x | | | x | | x | | | | x | | x |
| Assessing the risks and returns of products with financial consequences | x | | | x | | x | | | | | | |
| Estimating the financial implications and risks of events and situations | x | x | | x | x | x | | x | | x | | x |
| Knowing the value of money | x | | x | x | x | x | | x | | x | | x |
| Making an annual budget | x | x | | x | | x | | x | | x | | x |
| Knowledge of financial concepts and contexts | x | | x | x | | x | | x | | x | | x |

| | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|
| Acquiring sufficient income | x | x | x | x | x | x | x | x | x | x |
| Saving | x | x | x | x | x | x | x | x | x | x |
| Getting advice and help about money matters | x | x | x | x | x | x | x | x | x | x |
| Recording and monitoring income and expenses | x | x | x | x | x | x | x | x | x | x |
| Borrowing responsibly | x | x | x | x | x | x | x | x | x | x |
| Making choices | x | x | x | x | x | x | x | x | x | x |
| Insurances | x | x | x | x | x | x | x | x | x | x |
| Resisting temptations | x | x | x | x | x | x | x | x | x | x |
| Advertising | x | x | x | x | x | x | x | x | x | x |
| Carrying out transactions | x | x | x | x | x | x | x | x | x | x |
| Knowing the rights and responsibilities of consumers and employees | x | x | x | x | x | x | x | x | x | x |
| Organizing a business administration | x | x | x | x | x | x | x | x | x | x |

Figure 2. learning outcomes of extra-curricular initiatives in secondary education

Appendix 4

Content extra-curricular initiatives in secondary education

1 *C(r)ash, omgaan met geld (C(r)ash, managing money) (6 lessons of 1.5 hour)*

In C(r)ash, students are trained by means of the board game ‘Cash or C(r)ash,’ which revolves around making responsible financial choices – “Money can only be spent once”; The following topics are addressed:

- Income: *various forms of money, ways to acquire money*
- Expenses: *necessary expenses, desirable expenses and playing the board game*
- Debt: *how to prevent debt and where to seek help in case of financial problems*
- Managing money in a sensible way: choosing a currency and playing the board game
- Personal financial planning: creating a personal budget

2 *Edgie the Movie (2 lessons)*

Edgie The Movie is a 30-minute film that challenges young people to consider and discuss financial dilemmas. The film combines a thrilling viewing experience with an invitation to viewers to reflect on their own financial problems or challenges. Edgie The Movie is intended to remove the taboo associated with discussions about money among young people. By combining the film with a follow-up discussion in which the themes and events in the film are addressed, viewers are encouraged to talk about financial dilemmas and the financial problems that face us all at some point. In addition, students are asked to reflect on their own attitude towards managing money and the problems they have encountered in that respect.

3 *Geld moet rollen (Money is meant to be spent) (1–3 lessons)*

Geld moet rollen (Money is meant to be spent) is an online lesson about money and payments. Students gain more insight into the function of money and various forms of payment. The following topics are discussed, successively: What is money? What forms of money are there? What are the various functions of money? Subsequently, the discussion turns to coins, bank notes and bank accounts. What are the different ways in which you can pay with money? Attention is also paid to the way in which you can determine yourself whether a bank note is real or fake, and the concept of interest is explained. Students in the higher grades are also taught about inflation/purchasing power and exchange rates.

4 *Ik & Geld (Money & Me) (50–60 minutes)*

The themes of Ik & Geld (Money & Me) are linked to the most commonly used teaching methods and provide an active and meaningful way of applying financial knowledge to the personal financial situation of young people. The lessons are supported by IWB lessons.

The teacher uses statements and quizzes to involve the students in discussions. Students can actively participate in the class via their smartphone (or tablet or computer). An interactive instruction sheet will help them to process and internalize the content.

5 Theater Performance Rijk (Rich) (2 lessons)

The interactive theater performance Rijk (Rich) about money and reputation shows how financial differences determine people's position in a group. A story about the lives of five different young people with different financial backgrounds helps to make the audience members aware of their own behavior and choices and opens the door to a discussion about group pressure, money, poverty, shame, and influences.

After watching the performance, students talk with a discussion leader and the actors (who remain in character) about the things they saw and their thoughts and feelings about the various issues. The goal is to make students aware of their own behavior and to discuss differences among them. Learning how to talk about financial issues that apply to most students of this age is an important objective.

6 Junior Company (160–180 hours)

Junior Company lets students create their own company and run that company throughout one academic year. They divide roles, determine their target group, brainstorm about their product, write a business plan, sell shares and keep a financial administration. In this way, students experience in a hands-on way what it's like to run their own company. They discover what their talents are and what company role best suits them. Events are organized during which they can compete with other junior companies.

The students start companies in teams of 4–7 students. In addition to running the company (selling shares, implementing marketing strategies and selling products or services), the students must write a business plan and an annual financial report.

7 Leren omgaan met geld (Learning how to manage money) (4 lessons)

The first lesson centers on advertising, temptations and group pressure. Various aspects of savings and loans are addressed. Students are challenged to reflect upon the question whether they may be tempted by friends, parents or advertising to buy or do certain things, and to consider whether they find advertising annoying or helpful. Finally, a discussion takes place about 'belonging' and 'fitting in'. The second lesson is about the amount of spending money available to the students and the things on which they spend that amount. The main objective of this lesson is for students to create an overview of their personal income and expenses. Having an overview of one's personal financial situation is one of the most important financial competencies and a precondition for responsible financial behavior. The third lesson concerns ways of acquiring money. A majority of students in the lower grades of secondary education receive pocket money. Some of them also receive a clothing allowance. This lesson revolves around the positive and negative consequences

of having a job outside of school, and the rules that apply to the employment of young people. Finally, students are asked several questions to inquire about their future career plans. The fourth and the last lesson addresses (the differences between) savings and loans. Various aspects of savings and loans are explained and discussed. Students are challenged to think about a savings goal and receive advice on ways to achieve this goal. Borrowing and lending money to/from others is also a discussion point.

The interactive lessons are offered by LessonUp, an online platform that develops and provides interactive, motivating lessons.

8 MoneyMatters (1–2 lessons)

Money Matters is an online simulation game that lets young people experience the consequences of choices they will be faced with between the ages of 15 and 30 in ‘real life’. In the game, they must be able to live on a realistic annual salary, while managing matters such as a university education, side jobs, purchasing a house and taking out a mortgage.

9 Prinsjesdag (Royal Address Day) (1–3 lessons)

This is a digital lesson featuring online quizzes, which, among other things, concern the tradition of ‘Prinsjesdag’ (‘Royal Address Day’: the day on which the King or Queen of the Netherlands addresses a joint session of the Dutch Senate and the House of Representatives to explain government policies for the next parliamentary year), the Budget Memorandum, and the Government Budget. The Budget Memorandum poster is adapted every year. A digital version of this poster is also available, which is better suited to the experiences and perceptions of young people and includes explanatory videos about things such as the EMU balance and the budget cycle (with examples).

10 Hoe word je rijk? (How does one become rich?) (6 lessons of an hour)

Hoe word je rijk? (How does one become rich?) focuses on secondary education students aged 15 to 18 and aims to provide young people with the necessary tools to prevent debt after their 18th birthday. Working closely together with debt relief workers who are specialized in youth issues, the students are taught about the most common causes of debt among young people and about so-called life-events: health insurance, the national study grant system, mobile telephone costs, fines, debt collection and fraud. The lessons are given by professionals in the field, such as specialized youth debt relief workers, budget coaches and police officers. Young people in debt contribute to the lessons as peer educators. Based on their own experiences, they will tell the students what it’s like to be in debt and how long it takes to get out of it again. The program is mainly focused on the transfer of knowledge.

11 YES!

Groups of students start their own company. The students select a target group, choose existing products that would appeal to that target group, make a budget, buy products, create and implement marketing strategies and sell as many products as possible. The ultimate introduction to entrepreneurship, in a safe environment.

12 MoneyWays (3 lessons)

MoneyWays consists of a series of tasks that help students explore different themes related to managing money. The tasks focus on increasing the financial knowledge of the students and giving them more insight into their own financial behavior and the consequences thereof. Some tasks will encourage self-reflection, while others are aimed to facilitate a discussion among students. Each theme includes several tasks, and every task comes in three variants (indicated by the symbols €, €,€, and €€€). The variants differ in approach, considering differences in the financial development of young people. In other words, they are not intended for a specific age or educational level. Instead they are geared to individual students.

The lessons:

Make young people aware of their day-to-day financial behavior. How do they acquire money and how do they spend it? What financial choices do they make? What are the risks of specific financial transactions (e.g. borrowing money)?

Increase the financial knowledge of the students. The peer educators show the students how to make a budget. How can they control their expenses? What things must they take into account when they turn 18 and start living on their own? Discuss the socio-emotional aspects of money. The peer educators help the class to talk about potentially shameful topics such as poverty and group pressure. There is an emphasis on convincing the students to ask for help if they find themselves in financial difficulties.