

Chapter 3

Financial education in Flanders (Belgium)¹

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3.1 Financial education in 2019 in Flanders (Belgium)

Anno 2019, financial literacy education receives significant attention in the Flemish region of Belgium.² Both in primary education and in secondary education, the curricula mentions financial education aspects. This section reviews the financial literacy levels in Flanders, and the steps which have been taken to introduce financial literacy in the curricula. We focus particularly on secondary education.

3.1.1 Financial literacy levels

The most prominent international study assessing the financial literacy levels of youth in Flanders is the PISA (Program for International Student Assessment) executed in 2012 as well as in 2015 (OECD, 2014, 2017). The survey provides an image of the financial knowledge and skills of 15-year-olds. On average, Flanders scores very well with a second place after Beijing-Shanghai-Jiangsu-Guangdong (China), in PISA 2012 as well as in PISA 2015. The excellent average performance of Flanders has remained stable and high over the years. Yet, this favorable result conceals an important caveat: PISA also indicated a much larger diversity in the results compared to other countries. Flemish students with weak financial literacy outcomes perform much lower than average, with an important group of the population not reaching the minimum performance level. In addition, the gap between the top and bottom performers increased over the years. While in PISA 2012 8.7% of the 15-year-olds did not reach the basic level of financial literacy, meaning they are not able to make simple decisions on everyday spending, this increased to 12% in PISA 2015. At the other end of the distribution, the share of top performers, those capable of understanding concepts such as transaction costs and the working of complex financial products, increased from 19.7% in PISA 2012 to 24% in PISA 2015. The gap between top and bottom is thus increasing.

The Flemish education system is in general characterized by high PISA scores, but simultaneously with a high segregation along the socio-economic status of children. This pattern is also observed in financial literacy. Focusing on the PISA 2015 data, we group

1 We would like to thank Els Lagrou and Danièle Van der Espt (wikifin.be) for valuable comments on an earlier version of this chapter.

2 As in Belgium the authorities for education are at the Community level (i.e., Flemish Community, Federation Bruxelles-Wallonie, Walloon Community, German-Speaking Community), the policies are significantly different in the various language areas. This chapter focusses on the Flemish Speaking Community, which we refer to as Flanders.

students in deciles according to their socio-economic status group. Decile 1 in Figure 1 represents the group of students with the lowest socio-economic status, while decile 10 corresponds to the highest socio-economic status (SES) group. For each SES decile we plot the average score on financial literacy at the vertical axis. The results indicate a strong correlation between financial literacy and the SES-decile. In particular, students from the lowest decile obtain an average score of 463, while students from the most advantaged SES-decile obtain an average financial literacy score of 607. This difference of 144 PISA points corresponds to the equivalent learning shortfall of 3.6 academic years. This can be partly explained by the fact that students from the lowest SES-groups are more in (the weaker) vocational education tracks, while students from the highest groups are more in the (stronger) general education tracks³. As we show later in this chapter, parental involvement is also very important in financial literacy education, such that students from the lower SES deciles have a comparative disadvantage against the students from the high SES deciles. It should be noted that this correlation between financial literacy scores and SES is also observed in other OECD countries, however, to a lesser extent. While on average for the 10 participating OECD countries 10% of the variation in student performance is associated with SES, for Flanders this reaches 16%. In addition, the difference between students with and without an immigration background in Flanders is largest among all countries in the study. This is also visible in Figure 2, which plots the (quadratic) linear prediction of the financial literacy scores of pupils against the SES score for both Flemish students (blue line) and for all other (excluding Flemish) students (green line). The plot in Figure 2 indicates that the correlation between SES and financial literacy is much steeper in Flanders than in other countries.

For adults, the most important study is the ‘OECD/INFE International Survey of Adult Financial Competencies’ (OECD, 2016). Just like the PISA data, this survey is coordinated by the OECD. The survey is conducted in 30 countries among adults between 18 and 79 years old. Financial literacy is judged based on 21 items measuring adults’ financial knowledge, financial behaviour and financial attitudes. Overall, Belgium ranks 5th among the 30 participating countries. On average, Belgian adults score 14.3 out of 21. Considering the scores on financial knowledge, financial behaviour and financial attitudes separately, we notice that only 60% of Belgian adults have a high score (5 or more on 7) on financial knowledge, which is below the OECD average of 63%. The weakest areas of financial knowledge are simple and compounded interest calculation, with only 39% of adults able to answer both questions correctly. Moreover, only 56% of Belgian adults are aware of the fact that one can reduce investment risk by diversification. In contrast, Belgian adults score much stronger on financial behaviour, with 70% of them having a high score (6 or more on 9) on financial behaviour. Compared to the OECD average

3 Secondary education in Flanders is divided in four tracks: general secondary education, technical secondary education, vocational secondary education and arts education. Students in general secondary education attend broad, non-specific courses which prepare them for higher education. Technical education combines general education with more technical subjects. This track may also include practical training. In vocational education the focus lies on learning a profession. Finally, arts education focuses on learning an art.

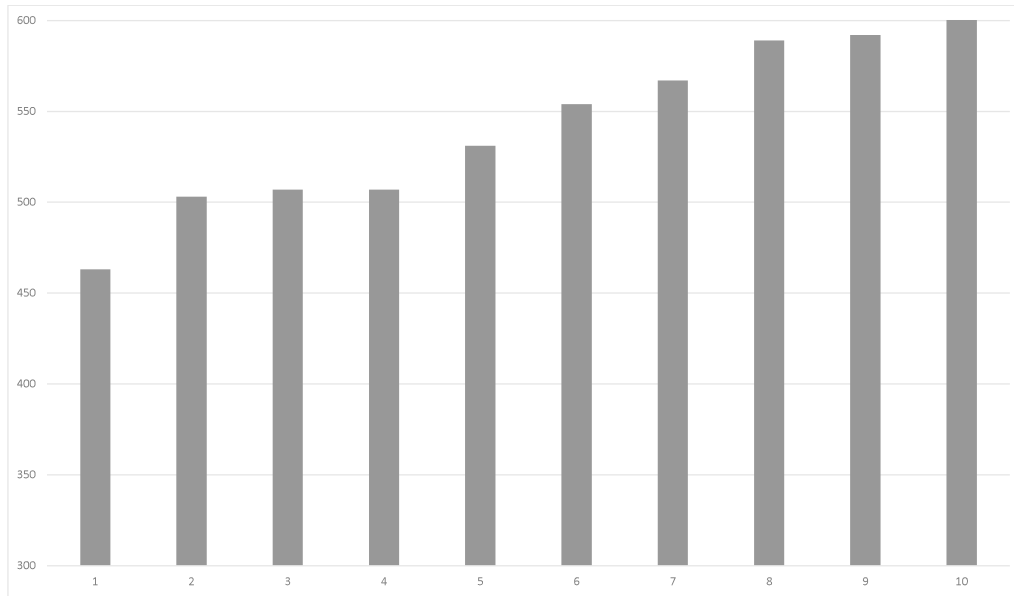


Figure 1. Average financial literacy score for each socio-economic decile in Flanders

Source: Own representation of the OECD PISA 2015 data

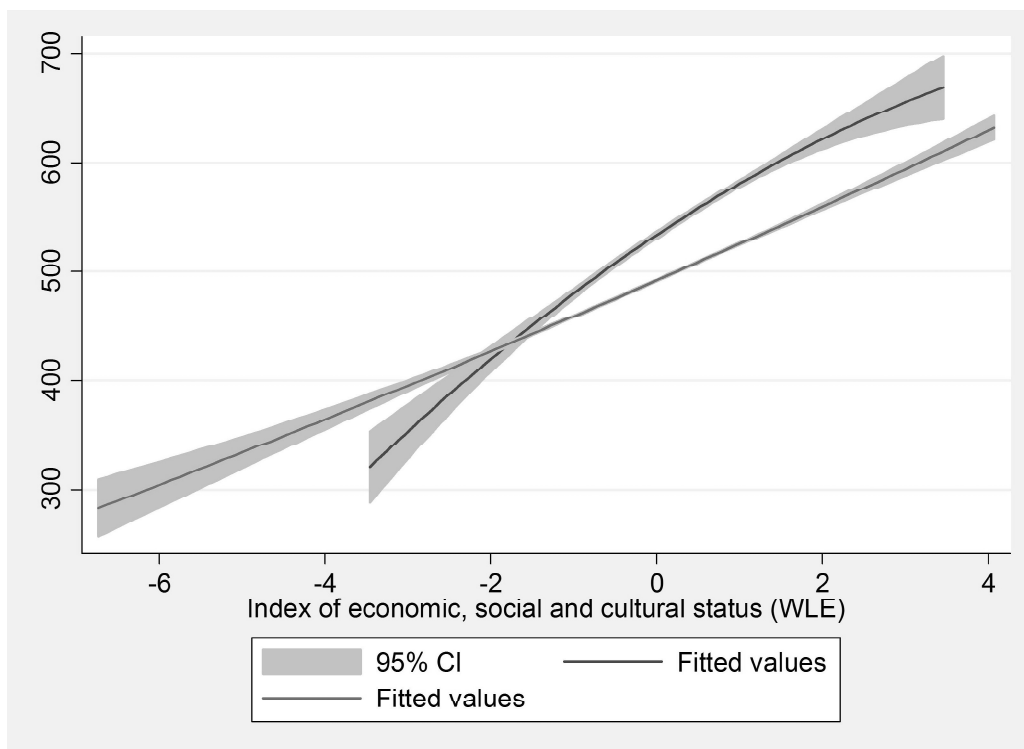


Figure 2. Fitted value of financial literacy score at age 15 (PISA data) and socio-economic status of Flemish students (steep line) and all participating countries (longest line)

Source: Own representation of the OECD PISA 2015 data

of 50%, Belgian adults perform quite well. Nevertheless, Belgians score poorly on some behavioural aspects such as comparing financial products and using independent advice. Only 26% of Belgian adults make some attempt to shop around when choosing a financial product and only 24% consult independent financial advice. With respect to financial attitudes, 56% of Belgian adults obtain a high score (3 or more on 5), compared with an OECD average of 53%.

Another international study focusing on adults with information on Belgium is Standard & Poor's Global Financial Literacy Survey (Klapper, Lusardi, & van Oudheusden, 2015). This study covers adults in more than 140 countries. The measure of financial literacy is more narrow compared to the study of the OECD: the S&P Global Literacy Survey gauges four basic financial knowledge concepts such as risk diversification, inflation, numeracy, and interest compounding. The results of this study reveal that only one in three adults may be considered financially literate (answering 3 out of 4 questions correctly). Belgian adults score well above the global average, with 55% of adults reaching the financial literacy threshold. Numeracy and inflation are the concepts that are best understood. In contrast, risk diversification is the least understood concept. The latter is confirmed by the Allianz (2017) survey, which measures basic financial literacy concepts (interest rates and inflation) and risk concepts (risk diversification, expected return and trade-off between risk and return) among adults in ten western European countries. On average, 75% answer the interest rate question correctly and 63% answer the inflation rate question correctly. The share of correct answers drops dramatically when it comes to the more sophisticated questions about risk. On average, across countries less than 50% of adults answer the risk questions correctly. In Belgium, only 45% answer the diversification question correctly, 56% the expected value question and 32% the question on the tradeoff between risk and return.

Within the Belgian context, Wikifin.be has conducted several surveys measuring the financial behaviour of the Belgian population. One of them focuses on parents (25–59 years old) with children aged six years and older living within the family home (Wikifin.be, 2016). Almost all parents (94%) talk about money, however not often. Talking within the family is extremely important for the formation of an adequate level of financial literacy (Moreno-Herrero, Salas-Velasco, & Sánchez-Campillo, 2018). Two parents out of three provide their children with pocket money, and the majority of children already receive some money from the age of 13. Buccioli & Veronesi (2014) show for a sample of Dutch households that providing pocket money, in combination with controlling money usage and giving advice about saving and budgeting to children, is a valuable strategy for improving savings later in life. A large group of parents (75%) indicate they save for their children. Most parents (78%) of those who save use the traditional savings account. Only 15% does so through mutual funds.

In general, the Belgian population is characterized by a high proportion of people indicating to save. For a broad sample of adults between the ages of 25 and 74, 67% indicate that they saved during the past 12 months (Wikifin.be, 2017). For Belgians in the age category 25–34 years old this is significantly higher (80%), while for the age categories 35–44 and above 65 years old this is significant lower, with 60% and 50% respectively. In

addition, education levels seem to matter with a significantly higher proportion of savers among people with a higher education level (76%) and a significantly lower proportion among those with only primary education (50%). From the population that does not save, two out of three indicate as their main reason not having the possibility. One fifth feels discouraged because it does not pay off to save. Saving behaviour seems to be learned from a young age, with 74% of Belgians indicating that they learned to save from their parents. This is in accordance with international evidence pointing to the important role of parents in the financial socialization process (Tang, 2017; Van Campenhout, 2015) and their role in the formation of financial attitudes (Norvilitis & MacLean, 2010). Saving, for Belgians, means literally saving. When asked how they distribute their savings funds, 74% indicate that they would consider a savings account. For investments with a potentially higher long-term return – such as stocks – this is only 9%.

In another study Wikifin.be (2018) looks in detail into the credit habits of the Belgian adult population between 18 and 75 years old. More than half of the Belgian population (66%) has used credit at some point. The most popular use of credit is for a house (49%) or a car (37%). Only a small minority indicates to use credit for non-durable goods such as a vacation (2%) or a big party (1%). Considering the attitudes of Belgians versus credit, we notice that some forms of credit are not seen as credit. For instance, 68% of Belgians does not see the use of a credit card provided by the supermarket as credit. For term-payments of a smartphone and the use of a credit card of a bank this is respectively 63% and 60%. Problems with the repayment of credit are reported by 10% of the population.

Attitudes towards credit and spending patterns are mainly formed during childhood (Grinstein-Weiss, Spader, Yeo, Taylor, & Books Freeze, 2011). Therefore, it is necessary to start at financial education a young age (Van Campenhout, De Witte, & De Beckker, 2017). A study of 16 to 18-year-old students in Flemish secondary schools (Cornelis & Storms, 2014) report some clearly undesirable financial behaviours. In particular, within this sample survey, 12% showed some form of financially risky behaviour such as gambling, borrowing money from friends or relatives, compulsive buying, etc. Moreover, students from lower social classes have a higher probability to exhibit undesirable financial behavior.

3.1.2 The route to financial literacy in Flanders

The policy recommendation to promote financial literacy has gained weight in Flanders since 2005, when several international organizations developed initiatives on financial education. With the publication of the “Basic principles for the provision of the high-quality financial education schemes”, (European Commission, 2007) an important milestone was reached in advancing the importance of financial education. Those principles are, in turn, in line with the OECD recommendations of July 2005 (OECD, 2005). Those principles include the following:

1. *Financial education should be available and actively promoted at all stages of life on a continuous basis;*

2. *Consumers should be educated in economic and financial matters as early as possible, beginning at school;*
3. *National authorities should give consideration to making financial education a compulsory part of the school education curriculum;*
4. *Financial education trainers should be given the resources and appropriate training so as to be able to deliver financial education programs successfully and confidently.*

Since 2013, the Financial Services and Markets Authority (FSMA) has the legal authority to support advanced financial literacy and, as such, has taken a leading role in bringing together financial literacy stakeholders, organizing consultation meetings and coordinating initiatives. To make its initiatives on financial literacy visible, it launched a separate financial education program on January 31, 2013: Wikifin. Consistent with its strategic objectives, www.wikifin.be is positioned as a website for a general audience with objective, neutral and reliable information in a non-specialist language. A central part of the Wikifin financial education program is the ‘Wikifin School platform’, which includes background information for teachers, videos, tools (e.g. a demo bank, a budget tool, etc.) and specific course materials (see section 1.3). The material is frequently used: the platform counts more than 5000 members and has enabled 40.000 downloads to date.

Together with the launch of the website, Wikifin.be attracted public attention by organizing a Round Table with the Minister of Education. The subject of the conversation was defining the challenges for our youth concerning financial education, the resources needed to integrate financial education into the curriculum and into the individual courses. Other roundtables during the Wikifin launching event dealt with the nexus between financial education and schooling, the challenges of financial education, and how to mobilize the educational system. The round tables made clear that there was an urgent need for a comprehensive strategy to include financial education in education curriculum.

In the next few years, Wikifin consistently pointed to the importance of integrating financial literacy in the curriculum. It was helped by recommendations by the OECD (2005), and the relevance of financial literacy for the European Key Competencies (European Communities, 2007). As discussed in Section 2, financial literacy today is part of the curriculum of primary and secondary education.

3.1.3 Example initiatives

As part of the education program, some interesting initiatives were developed in Flanders.

First, as a central part of the coordination function, Wikifin organizes the Belgian ‘Money Week’. During this week Wikifin and various partners organize activities for a wide target audience and schools. The aim of this initiative is to stimulate more open conversations on money issues. ‘Money Week’ will be organized for the fifth time in 2020 and usually takes place during the ‘European Money Week’. The latter is an organization of the European Banking Federation and aims to improve financial literacy through better financial education. Although in Belgium Wikifin is the coordinator of ‘Money Week’, it deliberately invites various partners (e.g. associations against debt, associations for family

affairs, sector federations) to collaborate. To attract media attention, Wikifin involves national newspapers and radio stations as partners. Moreover, it presents the results of own surveys (e.g. borrowing or saving). There are various activities during ‘Money Week’ such as an online financial literacy challenge, games for primary education, and local activities of the stakeholders (e.g. on financial literacy for women in Brussels). A very visible activity during ‘Money Week’ consists of information fairs in the four largest Belgian train stations and shopping malls. At an information fair, about 10 relevant stakeholders discuss with a wide audience, as well as schools (about 3000 pupils typically participate in the information markets), some key concepts of financial literacy.

A second interesting initiative are the tools on the Wikifin website. Van Campenhout, De Witte & De Beckker (2017) argue that the general foundations of financial literacy can best be provided in school, while more specific financial information can best be provided by using ‘just in time’ initiatives. The Wikifin portal offers various tools to assist people with their personal finance. By using tips and checklists, users can evaluate their financial situation and optimize it. The tools consist of calculators for the budget of buying a house, comparing debit or savings accounts, analyzing the insurance portfolio, measuring the impact of inflation on one’s savings, or calculating the inheritance tax. Finally, the portal provides various checklists such as on saving, buying a car, how to negotiate a loan or how to teach your children how to save.

A third important initiative is a large-scale research project called ‘Financial Literacy at school’ funded by the Flemish Science Organisation. The project develops and empirically tests innovative course materials on financial literacy. The project started in 2017 and ends in 2021. About 113 schools and 4342 pupils participated in the first experiments. The main aim of the project is to develop evidence-based education materials, as far too often education materials are used without properly testing them. More specifically, the project tests the role of class differentiation, parental involvement and professional development for teachers.

Finally, there is the platform ‘Wikifin school’. It contains information on workshops for teachers, traditional teaching materials as well as some specific games and didactical videos developed for schools. The games focus both on primary and secondary education. They use a variety of methods such as propositions, quiz, comic strip, board game, reading articles, etc. The topics include methods of payment, managing budget, loans, saving and investing and responsible consumption. All tools are free to download from the Wikifin website.

3.1.4 Challenges ahead

Nevertheless, there are still some challenges ahead for financial literacy in the Flemish education system. We discuss the challenges, as well as the existing Flemish research that aims to solve them.

Teacher training

A first challenge for financial education concerns the financial literacy skills of teachers. Financial literacy is a new topic in the curriculum of secondary education. A pre-requisite for effective financial education is well-trained and financially literate teachers. For Flanders, there is evidence on the financial capabilities of teachers to provide financial education for pre-service (De Moor & Verschete, 2017) as well as for in-service teachers (De Beckker, Compen, De Bock, & Schelfhout, 2019). For pre-service teachers, De Moor and Verschete (2017) reveal that only 16% of pre-service meet the minimum standard of a score of 75% for financial knowledge. In addition, only one third consider themselves capable to provide financial education. Remarkably, most pre-service teachers (97%) are favorable towards financial education in secondary education. For in-service teachers, De Beckker et al. (2019) show that approximately half of all teachers score sufficiently on financial knowledge and only a third attain the minimum standards for financial attitudes. When considering financial behaviours most teachers (87%) reach the minimum standard. Again, only one third of teachers consider themselves sufficiently competent to provide financial education. Therefore, teachers should learn how to teach financial literacy. This implies a major role for teacher training programs and the further professional development of teachers. As indicated by Compen, De Witte, & Schelfhout (2019), teacher development is traditionally considered to consist of attendance of events and workshops. However, there is an increasing awareness that teacher development should be a more continuous, embedded process, rather than a one-shot development. Moreover, there is no one-size-fits-all in teacher development as the optimal conditions vary between countries, schools and teachers.

In Flanders, large-scale experimental designs have been developed to examine the effectiveness of professional development in financial literacy (Compen, De Witte, Declercq, & Schelfhout, 2020). The professional development initiative consists of an online module which aims to improve the content knowledge of teachers, as well as to provide teachers with didactic approaches to deal with heterogeneity in the classroom. The online module was tested using two randomized controlled trials with a total of 1845 students, 53 teachers and 46 schools in Flanders. The authors disseminated standardized educational material and teacher instructions on financial topics, and evaluated changes in student performance using a pretest-posttest design. In the treatment condition, a random selection of teachers was granted access to an online teacher professional development module. Information on actual participation was obtained through log files demonstrating the number of logins and clicks in the module. Teacher tests were administered to investigate whether this approach results in changes at teacher level (i.e. teacher knowledge and teacher efficacy), which could consequently explain potentially increased student performance. The results indicate that the financial literacy program is effective, as student's test scores increased by 0.37 standard deviations. Although the teacher training module does not have a significant impact on the average student, it is shown that especially native students and students from a high socio-economic background benefited from teachers who participated in the teacher training module. Moreover, Compen et al. (2020) observe that the professional

development initiative benefits students who are less motivated to learn about financial topics, and those in larger classes. As an underlying mechanism, they point to the enhanced teacher efficacy, which can explain the heterogeneous effects.

Differentiation

As a second challenge, teachers have to cope with increasing diversity in the classrooms. This holds true in Flanders where, particularly in the first grades of secondary education, the diversity of students in terms of background, interest, motivation, cognitive skills and metacognitive skills is high. Although tracking might be a solution to reduce the diversity in classrooms, there is an extensive literature arguing that tracking harms the learning outcomes of students from a low socio-economic status (Hanushek & Wössmann, 2006). Classroom diversity is particularly pronounced in courses of financial literacy as the background of students is more strongly correlated with the learning attainments (Lusardi & Mitchell, 2007). Nevertheless, available teaching materials in Flanders are not developed to cope with this diversity. Internationally too, there is no evidence of the effectiveness of financial literacy programs that consider heterogeneity in student's performances in financial literacy at the planning phase of the programs, i.e. typically all students are taught the same program in a uniform way.

Therefore, Itebeke, De Witte, Declercq, & Schelphout (2020) developed a financial education program that was specifically designed to handle the increasing diversity in classrooms. Using a large-scale experimental setup, they tested the effectiveness of the financial education program in two experimental rounds with 69 schools and 2407 students. To examine the impact of within-class group formations and differentiated instruction in financial literacy education, they designed four conditions: one control condition in which schools did not receive the didactical material, and three experimental conditions. All experimental conditions made use of very similar didactic materials. In particular, there were four lectures of 50 minutes on the topic of means of payment in the format of a serious game. In the serious game, students were made familiar with different means of payment, how to use them and the risks and costs involved. In the experimental conditions, there was a distinction according to the group formation (i.e. heterogeneous groups or homogenous groups), and to the level of instruction. A first version consisted of minimal instructions for high ability pairs, while a second version, for medium ability pairs, provided additional instructions. A third version, for low ability pairs, included additional instructions. Accordingly, medium and low ability students were given additional hints and cues, such as where to find the answer to a question in the information booklet or how to make a calculation, which enabled them to adaptively coach their learning process.

The results indicate that group formations and differentiated instruction do not matter for the average student. Nevertheless, important heterogeneous effects were observed, as a homogenous group formation with differentiated instruction increases the performance of low ability students. Moreover, minority students significantly benefited from a homogeneous group formation within the classroom, given the material included additional instructions. The performance of native students, on the other hand, remained similar

in all experimental conditions. The results provided by Iterbeke et al. (2020) have significant policy implications, since providing differentiated instruction for students with a disadvantaged background does not harm the learning outcomes of the more advantaged students. Moreover, given that teachers are unable to meet the diverse needs of students while teaching to the middle, the study provides causal evidence on the effectiveness of classroom differentiation practices for financial literacy tools. Manipulating the class composition and implementing basic adapted instructions are found to increase the learning outcomes of struggling students in classrooms without deteriorating the performance of their peers. Accordingly, since these practices may be more cost-effective and easier to implement than other educational interventions, they deserve policy attention.

Parental involvement

A final challenge for financial literacy education is how to involve parents. The crucial role that parents play in the education of their children is further reinforced in financial literacy education. In particular, survey studies suggest a strong correlation between parents and their children's level of financial literacy and behaviour, including financial knowledge, investment and savings behaviour, debt avoidance and financial attitudes (Dohmen, Falk, Huffman, & Sunde, 2012; Grinstein-Weiss et al., 2011). Moreover, it is a common belief in Flemish compulsory education that parental involvement and tools like homework are detrimental for equal educational opportunities. In particular, as it is suspected that particularly high socio-economic status parents are able to help their children in an adequate and valid way, education providers are urging schools to avoid homework and parental involvement tools. They are afraid that this might widen the gap in educational performances.

To test this assumption, and to examine how parents can be involved in financial literacy education, Maldonado, De Witte, & Declercq (2019) assess the impact of fostering student-parent communication through a homework assignment on students' knowledge and behaviour based on two randomized controlled trials with a total of 2,779 students from grade 8 and 9 in the Flemish region of Belgium. Similar to Iterbeke et al. (2020) they randomly assigned schools to three experimental conditions and a control group. In the latter group, students only participate in a pre- and post-test. In a first experimental condition, Maldonado et al. (2019) test the effect of the financial literacy program, which consists of a four-hour classroom intervention. Their results show that the intervention was highly effective as the financial literacy scores of the students in the experimental group increased significantly in comparison to the students in the control group. In a second experimental condition, they treat students through homework in addition to the classroom intervention. To measure the impact of parental involvement, students in a third experimental condition receive a similar homework assignment as those in the second condition, designed in such a way that parental involvement is necessary. This is guaranteed by asking specific questions that only parents can answer.

The results of the experiment show that the classroom intervention and homework with parental involvement are effective. In particular, the homework with parental involvement increases the standardized test scores by 0.36. This is especially due to a rise in the behavior

scores. However, for the average student, Madonado et al. (2019) do not find added value of homework with parental involvement compared to homework without parental involvement. This finding is mainly hiding heterogeneous effects: the students with a low socio-economic status find a positive impact of parental involvement, which is not the case for the students from high socio-economic status group. These results might be explained by the more general intuition that parents from a high socio-economic group are already helping their children. Hence, if homework is designed in such a way that it does not specifically target the parents, the gap between the high and low socio-economic status groups is increasing. On the contrary, if the homework is designed such that parents play an active role, the most disadvantaged students in particular will gain. In other words, their results provide evidence against the common belief that parental involvement and homework harm equal educational opportunities. On the contrary, it shows that targeted initiatives in financial literacy education can be an effective way to involve parents in the education of their children.

3.2 Curricula and teaching materials of secondary education

3.2.1 Flemish secondary education system

To understand the position of financial literacy in secondary education curricula, we first briefly outline the Flemish secondary education system. Students typically enter secondary education at the age of 12. Secondary education consists of three cycles of two years and has a strong emphasis on ability tracking. In particular, after the first cycle (at the age of 14) students have to choose between four education tracks: general education, arts education, technical education and vocational education. Despite students of different ability levels being mixed in the first cycle of secondary education, there is already an informal tracking as students choose schools in function of the later tracks. Moreover, the participation to the tracks is strongly correlated with the socio-economic status of students, resulting in a strong socio-economic segregation of students. Students from high socio-economic status groups tend to aim for the academic track, while students from lower socio-economic status groups tend to participate in the vocational tracks.

The curriculum for Flemish education is based on competencies gathered in the so-called “eindtermen” (subject-specific key competencies) and “vakoverchrijdende eindtermen” (multidisciplinary key competencies). As in any education system, a curriculum is based on meetings with all stakeholders who define what is important. While Parliament determines the key competencies, education providers decide on how these key competencies could be attained. Therefore, the key competencies serve as minimum attainments that should be reached by the majority of the students.

On 1 September 2019, the Flemish secondary education system introduced the concept of ‘Basic Literacy’. These are minimum attainments that should be reached by all individual students. Although the key competencies focus on the average student, the basic literacy focuses on the individual student. As we indicate below, part of the curriculum on financial literacy is considered to fall within this ‘Basic Literacy’.

3.2.2 History of financial literacy in secondary education

Financial literacy education has been part of the secondary education curriculum since 2010. It is, notably via the field of “socio-economic society” as a “multidisciplinary key competence” included in general education, and through a project course (‘project algemene vakken’) in vocational education. However, similar multidisciplinary key competencies do not come with a performance commitment but merely impose an ‘obligation of effort’ on the teachers. Consequently, each general education school is free to choose how it will work on these competencies, with a wide range of possible differences in approach and quality. The results of a study by the Flemish Inspectorate indicate that in many schools, these educational goals are not sufficiently strived for (Ministry of Education, 2016).

In June 2016, the Flemish Minister of Education started a debate with the Flemish population about the need to address the curriculum’s contents. The current curriculum was established in 1996, and a fundamental discussion was therefore appropriate. Many actors participated in this exercise. In addition to all Flemish education providers (public, private, municipal ...), participants included government officials, the “Vlaamse Onderwijsraad (Vlor)” advisory board on education, federations of parents, students, etc. Finally, a decision was taken to include financial education as a minimum attainment, to be attained at certain stages during the schooling career. This meant that the practice of including financial literacy as a multidisciplinary key competence (i.e., without a formal performance commitment) was considered insufficient.

The starting point of a potential curriculum on financial education was the event “Basisvorming in Beweging” (2013). About 120 participants working in the domain of education, culture, youth, etc. accepted the invitation by the Ministry of Education to consider the broad lines of financial education curriculum. During this preparatory phase, a list of competencies was defined, including a minimum of financial literacy. These elements would be used by the initiators to define the key competencies of education. KeyCoNet, a European network, collected more information in a report on the competencies needed for the 21st century. As another source of inspiration, and as part of the coordination function of Wikifin, Wikifin developed together with relevant stakeholders such as the education providers and the ministry of education a framework on financial literacy. The framework defines the main topics of financial literacy education.

Finally, in 2017, the Ministry of Education created a steering committee that defined both the financial literacy curriculum and the ‘Basic competence for financial literacy’ for the first cycle of secondary education. The committee consisted of the education providers, teacher representatives and some experts. In May 2018, the Flemish parliament agreed on the goals, such that they are part of the curriculum for the first cycle of secondary education from September 1, 2019 onwards.

From September 2018 till May 2019 a similar steering committee, organized by the Ministry of Education, developed financial literacy goals for the second and third cycle of secondary education. It is expected that they will become part of the curriculum from the academic year 2021/2022 onwards. In contrast to the first cycle of secondary education,

there are no basic competencies defined (such that the attainments will have to be reached at group level, rather than for each individual student). As is the case for the first cycle, all secondary education students, irrespective of the education track, will be involved in the financial literacy curriculum. It is expected that the financial literacy curriculum takes about one hour per week in each cycle of secondary education.

3.2.3 The curriculum in the first cycle of secondary education

This section focusses on the curriculum in the first cycle of secondary education, as this curriculum has already been approved by the Flemish Parliament. It is the curriculum that all students take from September 2019 onwards. The curriculum focusses on both the ‘economic and financial competencies’, and does not make a distinction between the former and the latter. On the contrary, financial and economic competencies are provided in an integrated way.

The curriculum for the ‘economic and financial competencies’ is divided in three main blocks⁴:

1. Developing insight into consumption behavior, income acquisition and financial products to estimate budget consequences in the short and long term;
2. Explaining the functioning of companies and organizations and their social role;
3. Reflecting on the functioning of markets and the economy as a system and indicating the influence of the government within the (inter)national context.

Table 1 provides the exact learning goals for each of these blocks. Each learning goal is typically composed of conceptual knowledge components, but it can also include procedural knowledge (i.e., knowing how to do something), factual knowledge (i.e., knowing how to use the concept in a sentence), and an affective dimension. This curriculum has to be achieved for the majority of the students in the first cycle of secondary education. The first three goals (1.1-1.3) are also part of the Basic Competencies, such that every individual student has to achieve this goal. This is not the case for the other competencies, which should be achieved at population level (so not for every student separately, but on average for the cohort of students in the school). It is clear that reaching the basic competencies requires a strong commitment of the teacher and the schools, as a student who does not reach one of the three basic competencies cannot continue to the following academic grade level. It should be noted that for students who will likely go to vocational education in the second cycle of secondary education, there is a slightly less demanding curriculum on financial literacy. In particular, these students do not have to achieve goals 2.2 and 3.1.

⁴ www.onderwijsdoelen.be

Table 1. Learning goals financial literacy curriculum

Learning goals	Conceptual knowledge	Procedural knowledge	Factual knowledge	Affective dimension
<i>BLOCK I: Developing insight into consumption behavior, income acquisition and financial products to estimate budget consequences in the short and long term</i>				
1.1. <i>The students can argue their choice behavior when purchasing, taking into account their needs and being aware of influencing factors.</i>	<ul style="list-style-type: none"> – The difference between real and artificial needs – Factors that influence purchasing behavior: price including additional costs, available resources, status, advertising, sales practices, peers, media, social media, environmental and social aspects 			
1.2. <i>The pupils can assess the safety, risks and costs associated with the use of payment methods and sales channels.</i>	<ul style="list-style-type: none"> – Operation, costs, fraud and security with current payment methods and current sales channels 	<ul style="list-style-type: none"> – Strategies to prevent, recognize and respond adequately to fraud 		
1.3. <i>The pupils can make budgetary choices for themselves taking into account their own budget and a family budget.</i>	<ul style="list-style-type: none"> – Personal and family budget: income and expenses in the short and long term – Borrow, save, debt – Documents for easy personal administration such as cash tickets, account statements, guarantee certificates, contracts, subscription 	<ul style="list-style-type: none"> – Steps for managing and saving a personal administration – Students should act from a personal framework in which preferences for values, views, behaviors, events, information, tasks, strategies, etc. are internalized, but where attention is still needed for the balance between conflicting aspects. 		

Learning goals	Conceptual knowledge	Procedural knowledge	Factual knowledge	Affective dimension
1.4. <i>The students can dissect a family budget</i>	<ul style="list-style-type: none"> - Family budget: income and expenses in the short and long term - Borrowing, saving, interest, debt - Budget, borrowing, saving, interest, debt 			
BLOCK II: Explaining the functioning of companies and organizations and their social role				
2.1. <i>The students can explain activities in different types of companies and organizations in their own environment.</i>	<ul style="list-style-type: none"> - Activities in companies and organizations such as production, logistics, marketing, administration - Difference between production and service company - Difference between profit and non-profit 			
2.2. <i>The students can explain the impact of decisions made by companies and organizations on the environment.</i>	<ul style="list-style-type: none"> - Consequences of choices with regard to profit, competitiveness, corporate social responsibility (people, planet, profit) for the environment - Importance of social profit for the environment 			
BLOCK III: Reflecting on the functioning of markets and the economy as a system and indicating the influence of the government within the (inter)national context				
3.1 <i>The students can explain how the government has an impact on society through income and expenditure.</i>	<ul style="list-style-type: none"> - Income: taxes, social security contributions - Expenditure such as child benefits, infrastructure, education, health care, pension, unemployment benefit - Redistribution mechanism 	<ul style="list-style-type: none"> - What are taxes and social security contributions 		

3.3 Extra-curricular initiatives by Wikifin.be

Next to the prominent (and eventually successful) role in lobbying for a financial literacy curriculum, its independent website with advice on financial literacy issues, its coordinating role and participation in the yearly Money Week, Wikifin has several additional (extra)curricular activities. We discuss two of them next.

3.3.1 Wikifin lab

In 2020, Wikifin will launch an interactive laboratory where secondary education students can experiment with financial education. The laboratory is inspired by foreign initiatives like the 'Mide' in Mexico City (Mexico), 'Erste Financial Life Park' in Vienna (Austria), and the 'Museo del Risparmio' in Turin (Italy). In an interactive stay of about 2 hours, students have the opportunity to test the impact of personal choices on their own consumption / budget and society; as well as the impact of various (marketing) sources on their consumption behavior. They learn about financial concepts, sharpen their financial attitudes and are confronted with their financial behavior. The laboratory is organized as an interactive game where students in small groups participate in small experiments. It focusses, among others, on the organization of budget, consumption, financial markets and social security. During the visit a specialized teacher joins the class group, and coordinates the visit. At the end of the visit, the most important lessons are summarized by this specialized teacher. The Wikifin Lab is for free for students, and open to all students in secondary education in the French and Flemish education system.

3.3.2 Wikifin research chair

To deepen the knowledge of financial literacy, Wikifin has subsidized a research chair since 2016. The aim of the chair is to explore financial literacy in Belgium such that evidence-based decisions can be taken. The research chair has three main objectives. First, it aims to identify vulnerable groups in financial literacy. By combing the 'OECD International Network on Financial Education' survey data from 12 countries, a unique cross-country data set arises. Based on this large dataset, De Beckker, De Witte, & Van Campenhout (2019a) reveal that financially vulnerable individuals are on average single, less-educated, unemployed and earning a low income. Most of them are not able to make proper interest calculations and are unable to understand concepts like time value of money and the benefits of diversification. Individuals in this group are also less likely to be responsible for their proper money management or have a household budget. Identification of vulnerable groups is important for several reasons. First, it allows policymakers to set up more targeted policy initiatives, focusing on particular weaknesses of this group. Second, when the most vulnerable are identified it creates the possibility to use appropriate media to reach them. Both will lead to policy-initiatives that are more effective.

A second objective of the Wikifin Research Chair is to explore the underlying mechanisms of financial literacy. In particular, it explores the influence of national culture

on individual levels of financial literacy. Using a sample of 23,047 individuals from 12 countries, and after controlling for different socio-economic and institutional controls, De Beckker, De Witte, & Van Campenhout, (2019b) find support for the hypothesis that national culture affects financial literacy. Specifically, their results suggest that individuals in more uncertainty-avoiding cultures have higher levels of financial literacy, while financial literacy is lower for individuals in cultures high in individualism and indulgence.

As a third objective, the Research Chair focuses on the decisions driving buying behavior. Using a discrete choice experiment, they explore the role of price, information and marketing related gifts.

3.4 Trends

The earlier sections indicated sizeable attention towards financial literacy in Flanders, and Belgium. There are various initiatives to improve financial literacy, both for youth (e.g. by the compulsory education curriculum) and adults (e.g. by the tools and checklists on the Wikifin portal). Nevertheless, we can distinguish some further trends in financial literacy in Flanders.

First, financial literacy is integrated in the curriculum in the first grade of secondary education. As the concepts lectured for those between the ages of 12 and 14 are introductory, they are not sufficient to equip them for further (financial) challenges in their life. Therefore, the economic and financial curriculum needs to be extended to the upper secondary education levels.

Second, more attention should be devoted to the financial literacy competencies of people living in poverty. This group of people is heavily at risk of a vicious circle, as research indicates the importance of parents as a main socialization actor. More information is needed on the financial literacy competencies of this group, as well as on how to break this vicious circle. To do so, various policy domains (e.g. ministry of education, ministry of health, ministry of housing) will have to collaborate as the issue is multi-dimensional.

Third, more research is needed to the role of factors that influence financial literacy. Recent insights in behavioral economics indicate that people are prone to nudging and other behavioral biases. Research should point out how we can use these behavioral biases to foster financial literacy, and as such, to arm people for the various financial challenges during their lives.

References

- Allianz. (2017). When will the penny drop? *Allianz International Pension Papers 1/2017*.
- Buccioli, A., & Veronesi, M. (2014). Teaching children to save: What is the best strategy for lifetime savings? *Journal of Economic Psychology*, 45, 1–17.
- Compen, B., De Witte, K., & Schelfhout, W. (2019). The role of teacher professional development in financial literacy education: A systematic literature review. *Educational Research Review*, 26(February), 16–31.

- Compen, B., De Witte, K., Declercq, K., & Schelfhout, W. (2020). The Impact of Online Teacher Professional Development on Student Achievement. Evidence from Two Randomised Controlled Trials. *Working Paper*.
- Cornelis, I., & Storms, B. (2014). *Financieel risicogedrag bij jongeren. Resultaten van een survey-onderzoek bij leerlingen uit de derde graad secundair onderwijs*. Retrieved from <https://www.vlaamscentrumschuldenlast.be/uploads/documentenbank/0021ab7c2a0e1098ca0a725c32a46c90.pdf>
- De Beckker, K., Compen, B., De Bock, D., & Schelfhout, W. (2019). The capabilities of secondary school teachers to provide financial education. *Citizenship, Social and Economics Education*, 18(2), 66–81.
- De Beckker, K., De Witte, K., & Van Campenhout, G. (2019a). Identifying financially illiterate groups: An international comparison. *International Journal of Consumer Studies*, 43(5), 490–501.
- De Beckker, K., De Witte, K., & Van Campenhout, G. (2019b). The role of national culture in financial literacy. Cross-country evidence, *Working Paper*, p. 21.
- De Moor, L., & Verschetze, L. (2017). Student teachers' capacity and willingness to teach financial literacy in Flanders. *Journal of Financial Counseling and Planning*, 28(2), 313–321.
- European Communities. (2007). *Key competences for lifelong learning. European reference framework*. Retrieved from <http://hdl.voced.edu.au/10707/285153>
- European Commission. (2007). *Financial education for all. Financial education strategies and best practices within the European Union*. Retrieved from <https://publications.europa.eu/en/publication-detail/-/publication/354e0419-2a43-11e7-ab65-01aa75ed71a1>
- Dohmen, T., Falk, A., Huffman, D., & Sunde, U. (2012). The intergenerational transmission of risk and trust attitudes. *Review of Economic Studies*, 79(2), 645–677.
- Grinstein-Weiss, M., Spader, J., Yeo, Y. H., Taylor, A., & Freeze, E. B. (2011). Parental transfer of financial knowledge and later credit outcomes among low- and moderate-income homeowners. *Children and Youth Services Review*, 33(1), 78–85.
- Hanushek, E. A., & Wössmann, L. (2006). Does educational tracking affect performance and inequality? Differences-in-differences evidence across countries. *The Economic Journal*, 116 (March), 63–76.
- Iterbeke, K., De Witte, K., Declercq, K., & Schelfhout, W. (2020). The effect of ability matching and differentiated instruction in financial literacy education. Evidence from two randomised control trials. *Economics of Education Review*, In press.
- Klapper, L., Lusardi, A., & van Oudheusden, P. (2015). *Financial literacy around the world: Insights from the Standard & Poor's ratings services global financial literacy survey*. Retrieved from https://responsiblefinanceforum.org/wp-content/uploads/2015/12/2015-Finlit_paper_17_F3_SINGLES.pdf
- Lusardi, A., & Mitchell, O. S. (2007). Baby boomer retirement security: The roles of planning, financial literacy, and housing wealth. *Journal of Monetary Economics*, 54(1), 205–224.
- Maldonado, J. E., De Witte, K., & Declercq, K. (2019). The effects of parental involvement in homework – Two randomised controlled trials in financial education. *Working Paper*, p. 52.
- Ministry of Education (2016). *Onderwijsspiegel van Vlaamse Onderwijsinspectie*. Retrieved from <https://www.vlaanderen.be/publicaties/onderwijsspiegel-2016-jaarlijks-rapport-van-de-onderwijsinspectie>
- Moreno-Herrero, D., Salas-Velasco, M., & Sánchez-Campillo, J. (2018). Factors that influence the level of financial literacy among young people: The role of parental engagement and students' experiences with money matters. *Children and Youth Services Review*, 95 (December), 334–351.
- Norvilitis, J. M., & MacLean, M. G. (2010). The role of parents in college students' financial behaviors and attitudes. *Journal of Economic Psychology*, 31(1), 55–63.
- OECD. (2005). *Recommendation on principles and good practices for financial education and awareness*. Paris: OECD Publishing.

- OECD. (2014). *PISA 2012 results: Students and money: Financial literacy skills for the 21st Century*. Paris: OECD Publishing.
- OECD. (2016). *OECD/INFE International survey of adult financial literacy competencies*. Paris: OECD Publishing.
- OECD. (2017). *PISA 2015 results: Students' financial literacy*. Paris: OECD Publishing.
- Tang, N. (2017). Like father like son: How does parents' financial behavior affect their children's financial behavior? *Journal of Consumer Affairs*, 51(2), 284–311.
- Van Campenhout, G. (2015). Revaluing the role of parents as financial socialization agents in youth financial literacy programs. *Journal of Consumer Affairs*, 49(1), 186–222.
- Van Campenhout, G., De Witte, K., & De Beckker, K. (2017). Financiële vorming op school. In K. De Witte & J. Hindriks (Eds.). *De geslaagde school* (pp. 153–182). Brussels: Itinera Institute.
- Wikifin.be. (2016). *Hoe wordt binnen het gezin met geldzaken omgegaan in België?* Retrieved from <https://www.wikifin.be/nl/studie-hoe-wordt-binnen-het-gezin-met-geldzaken-omgegaan-belgie-maart-2016>
- Wikifin.be. (2017). *Sparen, of niet*. Retrieved from <https://www.wikifin.be/nl/studie-sparen-of-niet>
- Wikifin.be. (2018). *Jouw krediet ... Gewikt en gewogen*. Retrieved from <https://www.wikifin.be/nl/jouw-krediet-gewikt-en-gewogen>