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Emanuel Mizzi

University of Malta, emanuel.mizzi@um.edu.mt

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## Cultivating Financial Literacy Through Secondary School Economics Education: Access to Powerful Knowledge

Emanuel Mizzi  
University of Malta  
emanuel.mizzi@um.edu.mt

### Abstract

*'Powerful knowledge' is disciplinary knowledge that when learned, empowers students to make decisions in a way that will influence their lives in a positive way (Young, 2008). In this paper, the researcher employs this construct to explore the financial literacy education arising from studying secondary school economics. It emerges from the author's research aimed at exploring teaching and learning in secondary school Maltese economics classrooms. The underlying conceptual framework for this study is critical realism. The study design consisted of interviewing and observing 14 economics teachers, together with four focus groups interviews with students. Data were analyzed by employing thematic analysis. Financial literacy emerged as a theme in the teachers' and students' voices and in the lesson observations. Economics education enabled students to grow financially literate. This resonates with the literature that economics education assists students into developing financial and economic literacies (e.g., Brant, 2018; Chang, 2014). The consideration of the relationship between powerful knowledge and financial literacy assists the reflection, policy development and practice relating to the teaching and learning of financial literacy through secondary school economics and what constitutes powerful knowledge in this area.*

**Keywords:** Financial literacy, economic literacy, powerful knowledge, economics education, secondary school economics

Financial literacy cultivates financial attitudes, skills, and behaviours, and provides students access to the skills and confidence needed to enhance their financial wellbeing (e.g., Björklund and Sandahl, 2021; Greimel-Fuhrmann, 2014; Greimel-Fuhrmann et al., 2016; Spotton Visano and Ek-Udofia, 2017; Sun et al., 2020). Research evidence suggests that financial education is not provided in adequate ways to all students (e.g., Greimel-Fuhrmann, 2014; Greimel-Fuhrmann et al., 2016). In Malta, for example, research with business education teachers and bank officials indicates a poor level of financial literacy of young people (Farrugia, 2021). This is reflected in their tendency to seek immediate gratification by over-relying on credit institutions and being reluctant to save for the future.

Students are entitled to access to financial knowledge that enlightens their future financial decisions. The purpose of the researcher in this paper is to explore how secondary school economics can empower secondary school students with powerful financial knowledge and how the notion of powerful knowledge can help improve the provision of financial education. This research contributes to the

limited research base of secondary school economics education (e.g., Davies and Brant, 2006), and to the exploration of the relationship between the idea of powerful knowledge and financial literacy at the secondary school level.

The context of the study is the Maltese education system. Malta is the fifth smallest state in the world. It is geographically situated in the central Mediterranean Sea, just south of Sicily and about 200km north of North Africa, with a population of about 476,000. It is an archipelago of three islands: Malta (316 square kilometres), Gozo (67 square kilometres) and Comino (2.6 square kilometres). The population density is one of the highest in the European Union and in the world. It has been part of the European Union since 2004. The native Maltese language is a Semitic tongue written in the Latin alphabet, with a strong Italian influence. English is spoken and written widely in Malta, and it is taught from the first year in the primary school. Education is compulsory between the ages of five and 16 years.

The Maltese educational system has three main educational providers: the State, the Catholic Church and the Independent sector. All schools in the archipelago are bound by the Education Act of the country. The State and the Church schools cater for 68.4 percent and 22.5 percent of the student population respectively; the remaining 9.1 percent of students attend independent schools (National Statistics Office, 2020). The central government is responsible for the State schools. The Church sector is run by the Maltese Archdiocese, while independent schools are privately owned schools which are regulated by their internal statutes. It is a priority for Malta to employ educational practices and strategies that help to reduce poverty, augment the country's intellectual capital, and foster and enhance social cohesion and competitiveness through employability (Bezzina and Cutajar, 2012; Camilleri and Camilleri, 2016; Mifsud, 2016, 2017). Evidence of this is the history of educational law updates, reforms, counter-reforms, and policies intensification in these last four decades (Ministry of Education and Employment, 1999, 2005, 2012, 2016; Education.gov.mt, 2021).

The author's research explores secondary school economics education in Malta. Students proceeding to Year nine of their studies at secondary school can opt for accounting, business studies and/or economics. State schools offer accounting and business studies courses. In Church and Independent schools, the main subjects taught are accounting and economics. Financial literacy is not taught at the secondary school level, except for three schools in the Church and Independent sectors who organize financial literacy and entrepreneurship programs.

## **Literature Review**

### ***Economics Education***

Marshall (1920) defines economics as "a study of mankind in the ordinary business of life", exploring "that part of individual and social action which is most closely connected with the attainment and with the use of the material requisites of well-being" (p.1). Subsequently, Robbins (1984) defined economics

as “the science which studies human behavior as a relationship between ends and scarce means which have alternative uses” (p.16). This definition, or variations of it, has become a norm worldwide and a starting point for learning economics at school throughout the world (Brant, 2011, 2015).

There are various ways of conceptualizing the economy or ‘doing’ economics. These include the classical, neoclassical, Marxist, developmental, Austrian, Schumpeterian, Keynesian, institutionalist and behavioralist schools of economic thought. These different approaches to economics support different methodologies and ideologies. Each possesses strengths and weaknesses, depending on how it conceptualizes aspects of the economy and the relationships between them. Although no one school should claim superiority over others, the neoclassical school has established itself as the dominant one.

Learning economics develops a deeper understanding of the world that enables students to make informed choices as consumers, citizens, and workers (Brant, 2011, 2015; Davies and Brant, 2006; Grant, 2006; Jephcote, 2005; Jephcote and Abbott, 2005; Krueger, 2019; Lipsey, 1989; Skidelsky, 2020; Walstad and Soper, 1991). Young learners have an urge to understand the changing world in which they live and make it better (Brant, 2011, 2015; Brant, 2018; Brant and Cullimore, 2012; Brant and Panjwani, 2015; Grant, 2006; Skidelsky, 2020). Evidence of this is the increasing number of students around the world who are opting to study economics (e.g., Brant, 2015, 2018). The discipline has much to offer them, such as assisting to ‘think as an economist’ (e.g., Arnold, 2005; Grant, 2006). Lawson (1997) argues that “there can be no denying that, whatever its longevity, orthodox economics is a project that is currently real and highly efficacious” (p.197). It is a teacher’s responsibility to enact economics teaching and learning in such manner as to make the subject relevant, alive, and worth studying. Students may then experience that “95 per cent of economics is common sense – made to look difficult, with the use of jargons and mathematics” (Chang, 2014, p.3).

### ***Economic and Financial Literacies***

Economics education empowers students to mature in economic and financial literacies (Brant, 2018; Brant and Cullimore, 2012; Chang, 2014; Davies, 2015; Davies and Brant, 2006). These cultivate financial and economic attitudes, skills, and behaviors, and provide students access to the skills and confidence needed to enhance their financial and economic wellbeing (e.g., Björklund and Sandahl, 2021; Greimel-Fuhrmann, 2014; Greimel-Fuhrmann et al., 2016; Spotton Visano and Ek-Udofia, 2017; Sun et al., 2020).

Financial education programs tend to focus on the cultivation of financial behaviors that strengthen the financial system by increasing the dependence of consumers on financial services (Brant, 2018; Davies, 2015). These programs tend to shift the responsibility of financial choices to the individual, in contrast to raising awareness about the financial difficulties arising from the mismanagement and mis-selling of financial services (ibid.). Davies (2015) proposes a shift away from individual accountability towards a shared responsibility of governments, banks, and individuals (Figure 1).

Sustainability and Ethics in Interaction and Outcomes	Individual	Financial Services	Government/Country
<b>1 Short Term</b> e.g. income, spending, Liquidity, Borrowing and Saving	<b>A Budgeting</b> weekly/monthly; maintaining liquidity; Variation in saving and borrowing constraints for people on low and high incomes	<b>B The interest rate margin</b> between lending and borrowing; Financial Services judgements on the liquidity problems of individuals and businesses; Bank liquidity problems, how they may arise and how they are resolved.	<b>C The Government Budget; Government Debt and Interest payments; Relationships between Taxation, Spending and Debt; Multiplier effects; Welfare payments and poverty; Government lending to and borrowing from banks</b>
<b>2 Longer Term</b> e.g. Wealth, Debt, Interest, Time preference, Inflation, Risk and uncertainty	<b>A Real and nominal values;</b> general and personal inflation; Income and Expenditure forecasts; Borrowing risks; information problems about providers	<b>B Real and nominal interest rates;</b> Security in Lending; Bad debts; Lending risks, asymmetric information; bank lending, investment in industry and economic growth	<b>C Lending to the government: how safe is it; The current 'financial crisis'; Defaults and their effects between countries; Low inflation as a policy; Inflation and National Debt</b>

Figure 1: A framework for financial literacy (Davies, 2015, p.309)

The framework this author proposes suggests how important dimensions of financial literacy may be addressed in terms of the individual, the financial industry, and the government. The perspective adopted is that of economic literacy as an overarching construct of which financial literacy is one part, overlaps between the areas are welcomed to help students develop an overall understanding, and where “a citizenship objective for financial literacy is a necessary consequence of viewing school education as a servant of democratic development” (Davies, 2015, p.307).

Davies (2015) distinguishes between the short term and the long term in the financial education curriculum (Figure 1). This helps to align the introduction of financial ideas with various contexts for financial choices. In the short term, individuals make decisions given their current levels of money income and current prices. In the long term, their income will be affected by their decisions about work, education, leisure, borrowing and saving. These decisions might in turn be affected by inflation and future interest rates.

The influence of real and nominal values and the distinction between the short term and the long term are given prominence in this model. The individual needs to learn to distinguish between the real and nominal values and to be aware that the inflation rate experienced by a person may be different from the quoted average rate of inflation. Students who learn to differentiate between short and long-term

financial issues are empowered, for example, to understand media references to a 'liquidity crisis' in the banking sector, and to differentiate between a 'government deficit' and 'the national debt'.

The individual citizen may be intrigued by several questions relating to the role of governments. This role is addressed by the final column of the table. The considerations of citizens may relate to how to perceive government and household debt, how safe lending to the government is, and knowledge about taxation and inflation. Financial education needs to help young people to understand these and other issues.

Financial literacy as perceived through the lens of Davies' framework incorporates concepts associated with economic literacy, such as the functions of the economy, inflation, taxation schemes, interest rate fluctuations, and economic growth. This definition assists the consideration of motives behind strategies devised by governments and financial institutions and empowers citizens in their role of consumers and voters in exercising pressure to safeguarding the public interest. Concurring with Brant (2018), Davies (2015) contends that economics offers a knowledge base for "a systemic understanding at a personal, financial and governmental level" (Brant, 2018, p.21). The researcher argues that this is a form of powerful knowledge that economics has to offer.

### **Powerful Knowledge**

The notion of powerful knowledge emphasizes the importance of knowledge in teaching and curriculum development (Young, 2008, 2021). Such knowledge is defined as being subject-specific, coherent, conceptual disciplinary knowledge and embraces what are the key concepts, the main procedures and processes of a discipline (e.g., Young, 2008, 2013, 2014a, 2014b, 2018, 2021). It is the entitlement of every pupil to have access to this knowledge, being "better, more reliable and nearer to the truth about the world we live in and to what it is to be human" (Young, 2008, p.107). Powerful knowledge enables teachers to delve deeper into what is taught and empowers students to move beyond the experience they bring to school and make decisions that influence their lives in a positive way (Harland and Wald, 2018; Mitchell and Lambert, 2015; Young, 2008, 2018; Young and Muller, 2010).

Such knowledge is powerful "if it predicts, if it explains, if it enables you to envisage alternatives" (Young, 2014b, p.74) and "if it helps people to think in new ways" (Young, 2015, n.p.). It is also powerful because "its concepts . . . can be the basis for generalizations and thinking beyond particular contexts or cases" (Young, 2015, n.p.). It differs from knowledge that does not offer the potential knower any specific intellectual resources.

Powerful knowledge has three characteristics (Young, 2013, 2014a, 2014b). It is distinct from the common-sense knowledge acquired from the everyday experiences of learners. It is not context-specific and tied to the personal experience of students, but context-independent and therefore transferable to situations that are beyond a student's experience (Young and Muller, 2013). Powerful knowledge is differentiated from the experiences that students bring to school (Young, 2013). Secondly, powerful knowledge is systematic. The concepts are systematically related to each other in groups that are referred to as subjects or disciplines. Powerful knowledge can be the basis for generalizations and thinking beyond contexts or cases. Thirdly, "it is specialized, in how it is produced (in workshops,



seminars and laboratories) and in how it is transmitted (in schools, colleges and universities)” (Young, 2013, p.108). Powerful knowledge is knowledge that has been developed by clearly distinguishable groups with a clearly defined focus or field of enquiry and relatively fixed boundaries separating their form of expertise. Such specialized knowledge “is reliable and truthful: indeed, ... it is the best it can be” (Lambert, 2014, p.7). It is inevitably non-everyday knowledge (Harland and Wald, 2018).

## Methodology

The author’s research study, aimed at exploring secondary school economics education in Malta, addresses the following primary research questions:

1. How does economics offer secondary school students’ powerful knowledge that enables them to think beyond their everyday experience?
2. How do teachers enact a curriculum underpinned by powerful knowledge?

A qualitative research approach was adopted aimed at developing a deep understanding of learning in the secondary school economics classes. Qualitative research allows in-depth analysis, the investigation of highly sensitive issues and the making of comprehensive subject evaluation together with keen insight (Clough and Nutbrown, 2012; Charmaz, 2014; Cohen et al., 2011, 2018; Grbich, 2013; Punch, 2014; Trafford and Leshem, 2008). Such an approach addressed the research questions, enabled face-to-face interaction with the participants, and allowed for in-depth data together with detailed insights and experiences to be gathered (ibid.).

The research questions are rooted in the belief that there exists a reality, and that the participants and the researcher bring their own beliefs, values, and experience to the study. The conceptual framework adopted is critical realism. It offers an understanding of the world that is real, but which may be differently experienced and interpreted by different observers (Bhaskar, 1979; Fletcher, 2017). The research is an attempt at describing, understanding, and interpreting the reality relating to economics education as experienced by students, teachers, and the researcher. It is underpinned by an understanding that ontology is real, and epistemology is relativist. Ontology (that is, what is real, the nature of reality) is not reducible to epistemology (that is, our knowledge of reality) - there is a ‘real’ world, and it is theory-laden and not theory-determined (e.g., Fletcher, 2017).

This study attempts to capture aspects of the reality of teaching and learning of secondary school economics in Malta by exploring the views and perspectives of teachers and students and observing actual lessons. The emerging story is based on the assumptions and beliefs that the researcher and the participants bring to the study. To generate these rich insights about the complex reality of secondary school economics education in Maltese classrooms, the researcher decided to use different methods consisting of interviews with teachers, focus group interviews with students and lesson observations. Apart from complementing each other, it was intended that these methods provoked different insights and perspectives. For instance, observations might shed light on the meaning that interviews might not fully capture, and vice versa (e.g., Phoenix and Brannen, 2013). The challenge and opportunity for the researcher was to interact with the research participants in such a way as to facilitate the generation of rich and complex insights.

The rationale for the interviews with teachers and students was to allow them to express their understanding of their perceived reality of teaching and learning economics at secondary school level. It was, therefore, decided that semi-structured interviews were the best fit for this purpose. This type of interview is guided by several standard questions with additional unstructured follow up questions, enabling the researcher to flexibly address the main aspects that need to be discussed to answer the research questions. The discussion generated enabled the researcher to enter more depth about issues raised by the participants by making use of adequate probing questions, adding or omitting further questions during the course of the interview depending on how the discussion evolved. This choice in favor of semi-structured interviews offered this degree of flexibility to adequately address the research questions.

Since the population of Maltese economics secondary school teachers was relatively small consisting of 24 teachers, the aim of the researcher was to recruit as many as possible of these teachers; each teacher would bring into the research an understanding of the economics teaching and learning process. Fourteen participants were recruited: 11 teachers from Church schools and three from independent schools. Teachers were asked permission to observe one of their lessons; 10 teachers consented. The researcher observed two experienced participants twice and two student teachers who were in their final year of their teacher education course. In total, 14 lessons were observed.

To explore the students' experiences and perceptions relating to economics education, students studying economics were interviewed. These were Year 11 students (roughly aged 16 years) who were about to finish their secondary school education and had been studying economics for the last three years. Twenty students participated in the interviews.

All interview data was transcribed, and lesson observations written. Nvivo software was used for the qualitative and thematic analysis of the resulting data. Braun and Clarke (2006, 2013) advocate the use of thematic analysis as a flexible method of data analysis capable of dealing with complex qualitative data which can provide a rich account of the data concerned. Initially, each text was read repeatedly. Textual passages were then categorized according to their relation to addressing the research questions. The length of the passages varied from a few words to a whole paragraph. The software was useful in capturing all data relevant to the categories. Throughout the process, the aims, the research questions and the relevant literature guided the organization and interpretation of data. Finally, the results were compiled from this information, once again allowing for further modifications within and amongst the themes. The cultivation of the students' financial literacy emerged as a theme in the teachers' and students' voices and in the lesson observations.

Attempts were made to ensure that the data and its analysis reflected as truthfully as possible what was going on in these classes. Using multiple methods of data collection helped to capture the teaching and learning process in these classes in a rigorous and valid manner (Cohen et al., 2011, 2018; Robson and McCartan, 2016). By piloting the interview questions and observation guidelines and being open to feedback from my doctoral supervisor and a critical friend, the researcher attempted to avoid bias during the questioning and the writing of the observation notes. Furthermore, note was taken of all



data including deviant cases (negative case analysis). This search for negative cases was an important means of countering researcher bias (Silverman, 2014).

### **Findings and Discussion**

A common perspective shared by the teachers and students was that economics education assisted the students to mature into financial literacy. During the classroom observations, the researcher also witnessed teachers educating their students in “certain financial skills for life” (teacher Claire). Economics education did enhance the pupils’ understanding beyond their everyday experiences. This is a characteristic of powerful knowledge as envisaged by Young (2008), being knowledge that helps students explain the world around them, predict, envisage alternatives, and guide their financial life paths.

### **Secondary School Economics Education and Financial Literacy**

Most students discussed how secondary school economics inducted them into financial literacy. Student Jordy talked of economics as “starting them off” in this area, while student Isaac argued how economics “sheds light upon managing our future financial affairs.” Student Kyle reported that economics fostered in students an awareness of the need to be financially literate and the related financial decision-making that they would eventually need to consider. For instance, “I learn about prices and how I can bring more finance for my business.” Similarly, student Isaac contended that economics would assist him “when I’m about to take loans, wages, contracts and so on . . . I will definitely remember the examples and suggestions discussed by our teacher.” Student Vince reported that by learning about tax brackets, he learned about “how wages are spread and how much tax I have to pay.”

Most of the financial literacy aspects referred to by students related to banking and shareholding. Student Jordy, for instance, remarked how the subject helped him “to understand how banks work and why and how currencies appreciate.” Student Sergio explained that “when I would go for a bank loan and the banking official would start explaining things, I would be in a better position to understand the effects and consequences.” Student Dwayne reported that a topic he liked most was that of money and barter: “I understood better the role of banks and the characteristics and purposes of money. It helped me to appreciate the money I use and its value.” It helped him also to understand the services offered by banks, especially the different types of accounts “so that in the future I know where to deposit the money I earn.” Similarly, student Chris discussed how learning about the benefits and risks associated with such investments “helped me understand better how to plan the spread of my future cash investment.” Two students, Nicolai and Peter, maintained that economics helped them to understand and keep abreast with the financial news. This knowledge helped student Nicolai, who was interested in shares, to know where the best investment in shares would be when in the future he managed to save “some extra money.”

While teaching the economics topics prescribed by the syllabus, teachers similarly referred to various aspects of financial literacy. Teacher Liberata, for example, discussed that it was necessary for Maltese students, as citizens of the European Union, to possess basic knowledge related to monetary policy and exchange rates: “We’re often talking about these. They would know: ‘Why the rate of exchange? Why

does it change?” Being aware that students found it difficult to grasp these notions, she simplified her explanation, bringing examples from other countries: “Students then start to understand and to like it.” Another example comes from a lesson taught by teacher Mary. When she was discussing the commercial banks and the creation of money, the researcher observed her inviting her students into a discussion regarding online banking. She later argued: “I tackle this topic of commercial banks from a practical everyday aspect . . . Thinking that students are going to use this.” Another example comes from the class taught by teacher Claire. While she was preparing for a role play, Michelle, a teacher who came to assist her, showed the students a video clip about a news item from the Central Bank of Malta informing the public that the old Maltese currency used before the introduction of the euro should now be exchanged at the Central Bank and not anymore at the commercial banks. Once the clip was over, teacher Claire entered the class dressed as an old farm lady, Lucy. While exaggerating her suffering from rheumatism, Lucy explained how she had brought with her a bag full of old Maltese notes which she demanded to be exchanged to euro in cash. She explained that they were hidden under a floor tile in the bathroom. Michelle, acting as the bank official, tried to communicate with Lucy that nowadays money was deposited in a bank account. Showing her ignorance on the matter, Michelle invited Lucy to learn with her students about the services provided by the commercial banks. The students enjoyed this role play and the learning points derived from it. Their teacher was keen to provide eye-openers related to aspects of financial literacy, such as drawing their attention to various bank charges.

Three other teachers educated their students into aspects related to getting personal loans by providing practical reflections. These included being cautious about taking loans because the banks’ advertising gave the impression that this was recommended. Teacher Simone educated them to be prudent by narrating her experience about getting a loan on her house and not on the furnishings. The reason being that the former appreciated while the latter depreciated. She therefore decided to borrow on the things that appreciated: “You get bombarded on borrowing on a personal computer or tablet . . . Be careful! Because you can get caught up in a vicious circle finding yourself unable to continue repaying.” Students were observed reflecting. For instance, student Luke asked: “What happens when a person is unable to repay a bank loan?” I do observe how young people tend to be persuaded by banks to take loans. I claim that teachers have an important role in educating their students to often consider whether a particular personal expenditure is necessary. In this regard, teacher Claire urged her students to “take care of the pennies and the pounds will take care of themselves.” She tried to educate them about the need to save for their future priorities.

### ***Financial Literacy that Empowers Students***

The findings indicate that secondary school economics education empowered students with knowledge about the financial world which they were not going to learn in other subjects. Student Luke, for example, remarked that as students “they were fortunate enough to learn about topics such as banking services. Other students who don’t study economics don’t have this opportunity.” Teacher Mary also contended that in most economics topics there was an aspect which she could discuss to help her pupils mature in some aspect of financial literacy. Three other teachers noted that most students eventually worked in a business environment; economics students would, therefore, be in a better position to understand the issues involved.

Knowledge identified by teachers included learning to distinguish between a need and a want, opportunity cost, the way the market operates, how prices are established, the sources of finance available to businesses, money, and banking services. I argue that this constitutes powerful knowledge in financial literacy because it assists pupils to think in new ways (Young, 2015, 2021). Such knowledge is specialized knowledge because it had been developed within an expert economics community. The literature does refer to the notions of opportunity cost, price formation and market structures as threshold concepts which once acquired bring about a transformed learning experience (e.g., Davies and Mangan, 2007; Shanahan, 2016).

Teachers discussed the example of banking services to illustrate how the financial literacy acquired through economics education matured them in a manner that helped them to think critically about financial and economic situations, helping them to 'think the un-thinkable and the not yet thought' (Young, 2013). Teachers Antonia and Claire, for example, explained that students might only know about "the earning rate of interest" from the point of view of the consumer depositing money at the bank. Antonia remarked that students "broadened their awareness" when they learned that there was a "payment rate", with "banks earning profits from the loans students made." Teacher Claire, for example, informed her students that when one got a bank loan, charges were imposed immediately. She recounted how "surprised and frustrated they became learning about this. They start thinking to be careful about getting into loans." In this respect, teacher Grace helped them reflect: "If you get loans and make hire purchase on different items, what will happen to your disposable income?" Another example is when teacher Mary told her students: "We have reflected upon the advantages of banking services as used by the customer. What are the advantages that the bank benefits from?" She tried to broaden their awareness to evaluate who was benefiting from the situation. Davies (2015) warns that situations "where students' knowledge of the banking sector is largely dependent on the story that sector chooses to tell (sic) about itself does not look very healthy for democracy" (p.310). I argue that through their efforts in financial education, these teachers were educating for this healthier aspect of democracy.

In line with the relevant literature (e.g., Brant, 2018; Davies, 2015; Davies and Brant, 2006; Jephcote, 2005; Mallia, 2015), these teachers did attempt to extend their students' thinking by considering aspects of critical financial literacy. This included an exploration of such questions as "To whose benefit is the system operating?" and being critical about the services offered by financial institutions and about their motivation when they attempt to educate various sections of the general public in financial literacy. The provision of financial education needs to be unbiased, relevant, and appealing to young people, and provided on an on-going basis and in collaboration with teachers.

### **Financial and Economic Literacy**

Teachers educated their students in both financial and economic literacy. They attempted to distinguish between the two terms. Robert referred to financial literacy as the knowledge students possessed that helped them "understand the financial aspects frequently encountered in daily life." Teacher Ian argued that "when students grow up, they do look for investments."

Economic literacy was perceived to be broader than financial literacy; teacher Monica reported that it was “at a deeper level, going beyond financial literacy.” For example, regarding money, secondary school economics discussed interest rates and the supply of money, which she believed were beyond financial literacy. Similarly, teacher Franky remarked that “macro doesn’t come in much into what I think is financial literacy.” Without referring to it explicitly as economic literacy, he maintained that macroeconomics was important “for students’ life as citizens”, particularly in equipping them with the tools to evaluate what politicians were claiming, for instance, as regards real and nominal increases in GDP. This echoes the argument of Davies (2015) about the importance of educating young citizens in economic literacy.

Teachers Ian and Antonia stressed the importance of students understanding national income issues and educated them into being critical about aspects of it. For instance, when explaining the redistribution of income, Antonia discussed with her students: “The GDP is high. But there’s a section of the population who’s living in poverty and not benefiting directly. What can be done?” Another similar example when she did not refer explicitly to economic literacy was when arguing that economics empowered students not only to be critical consumers “but also to be critical suppliers, learning to supply their efforts to the best employer and not to the first one who comes their way.”

### **Teaching the Financial Literacy Aspects**

When enacting the teaching of the economics content related to financial literacy, teachers discussed the issues involved, brought relevant examples from daily life, and simplified the content to the students’ level.

Some students referred to approaches of teaching financial literacy which they experienced as helpful. Students Isaac and Sergio reported how, through sharing her personal experience, their teacher set them thinking:

Together with our teacher, we reflect much on life. She recounts her experiences of using bank services and of drafting the accounts of her husband’s business ... It might be something that in the near future I would be doing if I become a sole trader. (Isaac)

Students of focus group four discussed how their teacher assigned tasks that enabled them to research and analyze current financial information. For instance, student Dwayne was glad that he now understood the role of the Malta Stock Exchange (MSE): “Before starting economics I was curious about the MSE. I used to say: ‘What’s this?’ Now I understand more its functions.” He was particularly delighted in that this financial knowledge enabled him to analyze claims made by financial advisors: “If I go to buy shares, for instance, I can now check the prices from the MSE website. I would know ... Other persons won’t deceive me.” Dwayne showed evidence of being financially literate when he argued that “if you’re a risk averse person, you should never invest in shares or be a sole trader. I suggest that you invest in bonds because shares are riskier.” In contrast, student Alex contended that secondary school economics education needed to discuss “more where to invest, and how and why the price of property is soaring. This is an actual issue. That's what I want more from economics.”

The efforts of two teachers are now mentioned. Claire argued that economics provided her with the opportunity to explore financial literacy issues through relevant examples. She narrated personal experiences so that students became “aware of certain practical, down to earth issues ... I pass over to my students what I myself experience.” She discussed with them, for instance, the importance of opening separate bank accounts when they got married. Whilst referring to this and other issues, she stressed with her pupils: “You need to be aware of these issues!”

Teacher Mary narrated how to clarify the difference between shares and bonds, she asked her students to bring a balloon. During the lesson, she asked them to inflate it and write on it ‘share’. “Why share?”, she asked them. “Because if the company goes bankrupt, you lose everything.” They were then asked to burst it. She then took out the ball, discussed that it was less likely to burst than a balloon, and likened it to a bond. She came up with this comparison to help her students understand that bonds were safer than shares. This pedagogical content knowledge representation was grasped by the students, who also explained it very well to their parents.

These findings resonate with other research that approaches to teaching financial literacy based on hands-on experiences and experiential learning foster responsible financial behavior (e.g., Farrugia, 2021; Zammit, 2017).

## Conclusion

The data sources suggest that learning economics fostered the growth formation of secondary school students beyond their current financial knowledge. This strongly resonates with the literature that economics education assists students into developing their citizenship education and financial and economic literacies (e.g., Brant, 2018; Chang, 2011, 2014; Davies, 2015; Davies and Brant, 2006; Jephcote, 2005; Jephcote and Abbott, 2005).

The researcher claims that learning economics enabled students to acquire financial knowledge that could not be gained from their everyday experience. They were provided with access to knowledge that they did not have access to at home and in their own communities (e.g., Young, 2008; Young, 2013, 2014a, 2014b, 2018, 2021; Young and Muller, 2010; Young and Lambert, 2014). This is the argument of powerful knowledge during these economics’ lessons. These classrooms were special places where students were introduced to knowledge and knowledge making in ways that did not happen in ‘everyday’ places, empowering them to move beyond their experience, envisaging alternatives and participating in financial debates (e.g., Deng, 2018, 2020; Lambert, 2018; Young, 2013). This is an argument advocating the introduction of economics in Maltese State secondary schools and elsewhere where the opportunity to learn economics is not provided to adolescents.

This study highlights the need of providing financial education to all secondary school students, especially those who do not study business subjects such as accounting, business studies and economics. All learners have a right for access to powerful financial knowledge that “helps people to think in new ways” (Young, 2015, n.p.) and guide their financial decisions. I concur with the research advocating a financial literacy program as part of the secondary school core curriculum (e.g., Buhagiar, 2018; Farrugia, 2021). This program needs to include the powerful financial knowledge identified by the

participating teachers. Future research can be conducted in higher education to explore how and in what ways economics teaching and learning enables students to acquire financial knowledge that cannot be gained from their everyday experience.

Financial knowledge can be gradually built by teachers by employing experiential learning teaching approaches, discussing the issues involved, bringing relevant examples from daily life, and simplifying the content to the students' level. This knowledge needs to be elaborated upon slowly and skillfully so that students are provided with the opportunity to move beyond their current knowledge and experiences and savor the possibilities that powerful knowledge can offer them. After all, access to this knowledge is their right as citizens, consumers, and future workers.

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