

# 1 Towards a Comprehensive Financial Literacy Framework: Voices from Stakeholders in European Vocational Education and Training

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## 1.1 Introduction

In modern economies, the ability to reasonably deal with money and financial matters is becoming increasingly vital – not only for professionals in the sector of investment and banking, but for every individual responsible for managing his or her financial affairs in everyday life. The ability to manage personal finance well comes under the umbrella of “financial literacy”. The increasing importance of financial literacy is driven primarily by various socio-economic factors currently challenging most of the European (and other industrialized) countries. Among others, these include structural changes in the financial services and in the labour market; decline of the welfare state; and last, but not least, demographic change. This has resulted in the transfer of risk from the government to the individual in the shape of reduced state-supported pensions and health-care benefits. As a consequence, individuals are increasingly becoming responsible for planning and managing personal events such as illness, unemployment or retirement. Furthermore, if individuals use the services of financial intermediaries and advisors, they need to understand what is being offered to them as even standard procedures like electronic payments, which have replaced face-to-face transactions, require a certain amount of financial knowledge and skills. All this is growing in importance as far as adolescents and young adults are concerned mainly because younger generations are more likely to have to bear greater financial risks in adulthood than their parents. In addition, they are consumers of financial services such as online payment, mobile phones etc. from a young age (cf. Reifner 2011). Last but not least, knowledge and understanding of national financial and economic policy and its implication on citizens play a vital role in current conceptions of citizenship education. Young people need to be empowered to play an active democratic role as well as develop a broader understanding of the financial world (cf. Davies 2006). Given the fact that in many European countries, a substantial number of young adults enters vocational education (e.g. 75 percent in Switzerland,

more than 60 percent in Germany, about 78 percent in Austria and nearly 50 percent in Italy; OECD 2014), the context of Vocational Education and Training (VET) could play an essential role in the promotion of financial literacy. This fact, in turn, presupposes the availability of an educationally sound and holistically encompassing conceptual framework for guiding the diagnosis of financial literacy and promoting the development of financial education interventions.

Despite the high relevance and actuality of this topic; however, it is still largely unclear how the underlying construct can be adequately conceptualised from a (vocational) education perspective that includes not only functional aspects but considers the whole person, and particularly his or her development of interests and values as well as his/her role as citizen. Against this background, the aim of the research presented here is to contribute to the elaboration of a holistic conceptualisation of financial literacy encompassing the above-mentioned personal, emotional and national aspects. A possible approach for addressing this goal, in addition to a thorough literature review, is the consideration of key stakeholders' views. In this paper, an interview study will be presented that was carried out against the backdrop of a review and analysis of international research literature on conceptualisations of financial literacy and the resulting construct dimensions. The study is based on the reconstruction of perspectives of financial literacy of stakeholders in VET and from the financial sector dealing with finance education.<sup>1</sup> The focus of interest is firstly on the perceived facets of financial literacy and secondly, on the appreciation of their importance. The results will help to further elaborate the concept of financial literacy and form the basis for the development of diagnostic instruments for the assessment of financial literacy in VET contexts. Based on assessment results, appropriate learning arrangements for the target group can be developed as the next step.

## 1.2 Existing Conceptualisations of Financial Literacy

The conceptualisation of financial literacy can be located within the international research literature under three main strands. Each one depicts a specific model of a financially literate person with specific educational concepts (cf. Aprea 2014).

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1 This paper is an extended version of the contribution by Aprea et al. 2015. Besides focusing on different parts of the interviews, an enlargement of the data base is provided here. Whereas the latter contribution exclusively embraces stakeholders from German speaking countries, the present paper gives more encompassing insights by including voices from Italy, Portugal and the UK. With this we intended not only to further substantiate and/or differentiate our interpretations but also to make a first attempt to compare different European countries.

### *1.2.1 Manager of personal finance*

This direction is currently the most diffused conceptualisation of financial literacy. It is basically oriented towards financial decisions made in personal life, including budgeting, everyday payments, use of credits, insurances of life risks, wealth building and retirement provision (e.g., Schrösser et al. 2011). The emphasis is on making rational and well informed choices. The general principle of this group of conceptualisations is expressed in the following quotation by the former American Federal Reserve chairman, Ben Bernanke: “The recent crisis demonstrated the critical importance of financial literacy and good financial decision making, both for the economic welfare of households and for the soundness and stability of the system as a whole. Good financial choices depend on reliable and useful information, presented in an understandable way. *Essential components of personal financial management include an understanding of how to budget strategically, use credit, save to build personal wealth, and shop for and choose suitable financial products.*” (Bernanke 2011; emphasis added). Educational efforts would then specifically focus on strengthening the knowledge and understanding of financial facts important for personal finance management.

The conceptualisation of financial literacy as personal finance management tool is reflected for instance in the Pisa 2012 Financial Literacy Framework launched by the OECD, which is based on the following definition: “Financial literacy is knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding in order to make effective decisions across a range of financial contexts, to improve the financial well-being of individuals and society, and to enable participation in economic life.” (OECD 2012: 13).

Conceptualisations of financial literacy as personal finance management tool attempt to focus on central decision-making areas of financial literacy. Therefore, they, potentially, are more likely to represent and predict decision-making behaviours than knowledge-related conceptualisations. Nevertheless, because they are restricted to personal financial aspects, they are flawed with a central problem regarding the desideratum of a holistically oriented approach towards financial literacy education, as mentioned in the introduction.

### *1.2.2 Informed consumer*

Some conceptualisations of financial literacy broaden the perspective of personal finance management by including the aspect of responsible and critical consumption in a financial context. Besides the ability to critically reflect and purposefully control own needs and buying decisions, special reference is made here to the functions and interests of financial services providers. Fol-

lowing this approach, a central objective of financial education would be the reduction of information asymmetries in the advice and sale of financial products. This also includes information on consumers' rights and obligations. Thus, the central element in such a conceptualisation is the consumers' relation to other actors in a financial context. Therefore, we term conceptualisations within this group also as *relational approaches of financial literacy*. In the Anglo-Saxon world this is, for instance, the view of Atkinson et al. (2007) or Rutledge (2010). In German-speaking countries, this position is represented by the Institute of Financial Services (iff) which regards financial literacy education as "the critical, user-oriented conveying of common knowledge, understanding and social action competence in dealing with financial services built on credit facilities, which people use for themselves outside their professional sphere in order to reasonably combine income and expense, work and consumption throughout their lifetime" (Reifner 2008).

As emphasized, for instance, by Neumaier (2012), this conceptualisation might be vulnerable to an abusive functionalization, principally when financial literacy is seen as an alternative to structural and systemic regulatory procedures, and individual financial problems. As a result, negative macroeconomic developments are then accordingly ascribed to personal failure or attributed to personal responsibilities. Such a deficit orientation does not only contradict the educational intention focused on in this article, but also disregards available theoretical and empirical evidence, especially relating to more structural causes of private over-indebtedness (e.g. Meier-Magistretti et al. 2013) or to the development of financial crises (e.g. Krugman 2008). However, in order to be able to appropriately judge these complex relations, this conception of financial literacy that is oriented towards the strengthening of consumers' power has been integrated into a wider structural perspective that is discussed in depth in the following section.

### 1.2.3 *Responsible economic citizen in financial issues*

The conceptualisations belonging to this group particularly focus on the ability to understand and participate actively in a democratic economic and financial system. As already mentioned, they place financial literacy into a wider context of economy and society, where citizens are addressed not only as recipients, but also as co-creators of the conditions of the larger economic and political framework. Therefore, we may term this group of conceptualisations also as *systemic approaches of financial literacy*. An integrative example from the Anglo-Saxon world is offered by Davies (2015), according to whom a central task of financial literacy is to enable voters to "have sufficient understanding of financial processes and incentives to create a climate of pressure for politicians which makes it more likely that [they] govern in

the public interest” (p. 312). Further examples from the German speaking countries are provided by Hippe (2012) and Remmeli and Seeber (2012), who both highlight the embeddedness of financial and economic issues into an economic or socio-economic framework. Furthermore, similarities can also be identified between this third group of conceptualisations on financial literacy and certain approaches to economic and civic competence in the German language region (Dubs 2014, Eberle 2015, Schank & Lorch 2014, Schumann & Eberle 2014, Ulrich 2007).

The conceptualisations that view financial literacy as part of an extensive economic or socio-economic framework can be considered as the most encompassing ones and, at the same time, the most useful ones for the educational objective pursued here. However, the current conceptualisations of financial literacy do not seem to take into account the emotional and motivational factors behind financial decisions as well as questions regarding related social values and norms. Taking into consideration findings from cognitive psychology (e.g., Gigerenzer 2008), brain research (e.g., Damasio 2006) and conceptual change studies (e.g., Sinatra & Mason 2008), the omission of these aspects seem questionable as factors influencing (financial) behaviour and learning and development processes are an important aspect of financial literacy. Our study, thus, takes into account that the construct of financial literacy is not exclusively informed by cognition. Attitudes (e.g., towards money, cf. Barry 2014) and motivational aspects (e.g., the ability to delay gratification, cf. Wuttke & Aprea 2014) play an important role as well.

### **1.3 A Holistic Approach to Financial Literacy: A Four-Facet-Framework**

Against the backdrop of the presented considerations, two dimensions of financial literacy can be discerned – “content” and “personal resources”. The first dimension of “content” comprises, in terms of a continuum, the characteristic “individual vs. systemic”. This dimension refers to the first two types of concepts of financial literacy outlined above. The characteristic “individual” focusses on the individual as a consumer making financial decisions in personal and market environment whereas the characteristic called “systemic orientation” subsumes issues of the larger context of economy and society as well as economic and political framework conditions. On the other hand, the second dimension of “personal resources” contains the characteristics “cognitive” and “non-cognitive”. “Cognitive” refers mainly to knowledge, skills and abilities. Non-cognitive dispositions imply emotional, motivational and volitional aspects as well as social values and norms, which can also be un-

derstood as personal traits and characteristics.<sup>2</sup> Based on these dimensions, four facets of financial literacy are emerging: individual cognitive, individual non-cognitive, systemic cognitive, systemic non-cognitive. These four facets underlie the following study as they form the basis for the analysis scheme (see in detail <http://www.flinevet.eu>).

Following a holistic approach to financial literacy, the central aim of the interview study was to analyse key stakeholders' views on the above mentioned four facets of financial literacy and on their respective importance. The research questions, therefore, are the following:

- (1) How do the key stakeholders elaborate the four facets of financial literacy within a holistic framework?
- (2) What importance do they attribute to each facet?

A further aim of this approach was to fill out the analysis scheme with content that can be used, in future, to create test items.

## 1.4 Method

The interview study was conducted in the context of the EU Leonardo Da Vinci Lifelong-Learning-Project "Financial Literacy in European Vocational Education and Training (FLin€VET)". The project brought together a group of partners with different missions and expertise in VET practice and research (e.g., Universities, VET Providers, Teachers and Teacher Trainers, Associations dealing with VET and labour market) from six different countries, namely Austria, England, Germany, Italy, Portugal and Switzerland.<sup>3</sup> The overall aim of the project was to analyse conceptualisations and curricula in the area of financial literacy in different countries.

*Sample of the interview study:* With regard to the sampling of the participants, three groups of key stakeholders with different points of contact with the financial (vocational) education context were identified: (1) finance education experts, who are involved in the development of teaching materials or in the provision of consultation to concerned adolescents, (2) VET teachers and company trainers, who teach financial issues at VET schools or in training companies, and (3) VET students, who are the directly affected target

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2 With the term "non-cognitive" we want to contrast conceptions that solely consider cognitive aspects such as knowledge, abilities and skills. Of course we are aware that this distinction is of analytical nature, and that non-cognitive aspects such as motivation and attitudes also contain cognitive elements.

3 Further information about the project can be found on the project website (<http://www.flinevet.eu>).

group. At least two representatives per group were chosen for an interview in each of the six participating countries. All participants were known to the project partners by previous contacts, and therefore, must be considered as a convenience sample. A total of 40 interviews were conducted. Of these, 14 interviewees are from the financial sector dealing with finance education (five from Germany, three from Switzerland, two from England and Portugal and one from Austria and Italy), working as managing or employed debt counsellors or other financial specialists such as representatives of the national and private banks. 12 interviewees (two per country) teach either professional or general education at VET schools. Another five interviewees (three from Germany and one from Austria and Portugal) are trainers in companies in the gastronomic, health and commercial sector. Finally, nine interviewees (two from Austria, England, Portugal and Switzerland and one from Germany) are VET students from the “car”, “restaurant”, “health care”, and “commercial and administration” industry. The interviewees were between 17 and 58 years old and, of which 45 percent were women.

*Data collection:* The interviews were conducted using an interview guide and following a two-step procedure. (1) First step involved determining the participants’ conceptions of financial literacy by asking questions such as “how do you define financial literacy”, and “what do you think a young adult/VET student should be able to do in order to be called financial literate”? (2) This was followed by showing them our financial literacy framework including the four facets discussed above. The interviewees were then asked, among others, the following two questions:

- a) If you look at the different components of our framework, in your opinion, which cognitive (knowledge, skills, abilities) and non-cognitive (interests, attitudes, values) resources does a young adult/VET student need ...
  - to be capable of managing his/her own money adequately?
  - to be a well-informed consumer and a responsible citizen in financial issues?
- b) Which aspects of financial literacy do you consider as the most important, and which should, therefore, be necessarily included in a financial literacy conceptualisation?

In this paper we will exclusively focus on the second question, i.e. the elaboration of the scheme with the four facets of financial literacy and their respective importance.

Interviews were conducted between January and March 2014 and lasted 33 minutes on average. All interviews were audio recorded and transcribed. In the case of Portugal and Italy, the transcripts were translated into English.

Therefore, the database was available either in German or in English, which was necessary as Swiss researchers did the coding.

*Data analysis:* The coding and analysis of the interview transcripts were carried out mainly by two researchers using the N-Vivo software tool, and was based on descriptive and interpretive content analytical procedures (e.g. Krippendorff 2012). More particularly, data analysis proceeded according to the following steps: After (1) the agreement of a shared understanding of financial literacy among project partners, (2) a global structure of the analysis scheme was established, taking into account the four facets listed above. Followed by, (3) a selection of interview transcripts from Germany and Switzerland (one per different respondent group, i.e. financial counsellors/experts, VET teachers and trainers, and VET students) were read and relevant text passages excerpted. These text passages were then (4) aggregated into categories in an inductive process as well as (5) compared with conceptual approaches from the literature in a deductive process. This was followed by (6) the establishment of coding rules and anchor examples before (7) the analysis scheme was applied to transcripts of the remaining interviews and, if necessary, revised. Finally, (8) data was interpreted and compared between countries and between groups of respondents. 25 percent of the interview transcripts were double coded. The interrater reliability is .85, which can be considered as very good.

## 1.5 Results

In this section, we will first present results from the interview study on how the participants elaborated upon the four different facets of financial literacy, and then report findings regarding their judgements of the respective relevance of these facets. In addition, preliminary analyses of differences between the six countries and the three respondent groups will also be presented.

### 1.5.1 *Elaboration of the four financial literacy facets*

The analysis of the interview data provided a substantive elaboration of the *individual cognitive* and the *systemic cognitive facet* into different topic areas. In contrast, the elaboration of the non-cognitive facets was less sophisticated.

The individual cognitive facet (cf. Table 1) dominates the responses across all countries and respondent groups. Of the total of 852 statements coded across all 40 interview transcripts, 408 (48%) could be assigned to the

individual cognitive facet and were mentioned at least once by 39 of the 40 interviewees ( $n = 39$ ), while 235 (28%,  $n = 36$ ) statements could be assigned to the systemic cognitive facet.<sup>4</sup> In contrast, the two non-cognitive facets played a rather minor role (individual non-cognitive 15%,  $n = 36$ ; and systemic non-cognitive 9%,  $n = 31$ ), and could not be further differentiated into subcategories due to the relatively small number of responses.

Within the *individual cognitive* facet, the most prominent topic area is (1) “planning and managing financial matters” that is prominently represented with approximately 38 percent of the total number of assignable individual cognitive statements ( $n = 34$ ). As indicated in Table 1, this aspect of financial literacy can be further subdivided into the following sub-categories: The most commonly named one is (a) “drawing up a budget” (11 percent of the total number of assignable individual cognitive statements,  $n = 16$ ). The following interview excerpt illustrates this point clearly: “the management of one’s budget, that is to know how much I earn, to know how much I spend, to know how to define a percentage of savings” (Portuguese interview #7, debt counsellor). A further subcategory is (b) “using banking and financial services for daily needs” (9%,  $n = 19$ ). This mainly includes general knowledge about the function of banks, how to open a bank account, or how to invest and withdraw money. Further subcategories are: (c) “planning expenses in accordance with own needs and possibilities” ( $n = 14$ ) and (d) “evaluating own revenues” ( $n = 17$ ), with 6 percent each. The following example for the former brings it to the point: “If I have money, I buy, if I don’t have money, I don’t buy” (Portuguese interview #2, VET student). A typical example for the latter is expressed in the following excerpt: “When they get their pay slips it is important for them to understand how much money they are being paid and what are all these deductions on their payslips” (English interview #6, VET teacher). Other relevant topic areas under the individual cognitive facet are: (2) “saving money/building assets” with 19 percent of the responses ( $n = 29$ ), (3) “spending money” (16%,  $n = 23$ ) and, last but not least, (4) “borrowing money/raising a credit/financing methods” (9%,  $n = 21$ ). “Retirement planning” (5%,  $n = 14$ ), “prevent (over-)indebtedness” (4%,  $n = 9$ ), “knowing information and counselling services in the context of money and financial affairs” (4%,  $n = 8$ ) as well as “earning/taking money” (3%,  $n = 8$ ) and “comparing/contracting assurances” (2%,  $n = 6$ ) are further categories that have been mentioned less frequently than the ones mentioned above.

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4 Repeating statements by the same respondent within any specific facet and subcategory were explicitly taken into consideration and thus counted multiple times to that facet/subcategory.

*Table 1: Elaboration of topic areas for the individual cognitive facet of financial literacy*

	Category with sub-categories (percent of total references, number of interviewees)	Operationalization	Anchor examples from transcripts
Individual cognitive	Earning / taking money (3%, n = 8)	To identify various sources of income (wages, public services, secondary income etc.)	Knowing existing social security benefits and/or rebates, especially with scarce finances
	Planning and managing financial matters (38%, n = 34)	To know the personal sources of income and thus to assess the available money for current consumption	Knowing payroll deductions
	Planning expenses in agreement with own needs and possibilities (6%, n = 14)	To weigh personal needs and shopping desires based on financial resources and to plan how to spend the money	Rethinking consumer behaviour and bringing it in accordance with available funds
	Gathering short-term reserves of money (3%, n = 7)	To consider short-term reserves in planning own finances (short-term reserves)	Planning of major, predictable expenses (e.g. medical consultation)
	Drawing up a budget (11%, n = 16)	To compile and check revenues and expenditures	Having an overview of own monthly expenses
	Using banking and financial services for daily needs (9%, n = 19)	To use everyday banking services that are relevant for planning and managing financial matters	Knowing what it means to have a bank account
	Dealing with credit cards (2%, n = 5)	To use the credit card as a possible means of payment in everyday transactions (short-term borrowing of money)	Knowing dangers of overrunning credit cards
	Filling out tax declaration (1%, n = 2)	To regard taxes in the planning and management of one's own finances.	Knowing how to fill out a tax declaration

Spending money (16%, n = 23)	To carry out and control everyday financial transactions. It is about purchasing behaviour	Price comparisons when buying clothes
Prevent (over-)indebtedness (4%, n = 9)	To know, assess (and avoid) risks of (over-) indebtedness in carrying out every day financial transactions	Knowing traps leading to indebtedness
Saving money / building assets (19%, n = 29)	To save or invest money in order to build assets (medium-term reserves)	Knowing the risk and return of different forms of investment
Borrowing money / raising a credit / financing methods (9%, n = 21)	To borrow money which has to be repaid in regularly occurring instalments over a longer time (credits, leasing, mortgage)	Knowing different financing methods for a new car and assessing advantages and disadvantages
Retirement planning (5%, n = 14)	To form long-term reserves to make provisions for retirement age	Knowing saving methods for retirement
Comparing / contracting assurances (2%, n = 6)	Any kind of insurance products (car insurance, life assurance etc.) to cover risks	Comparing health insurances of different providers and choosing the one which fits the best for own needs
Knowing information and counselling services in the context of monetary and financial affairs (4%, n = 8)	To know information and counselling services or web pages in the context of monetary and financial affairs to get information or help when needed	Knowing where to get help with a financial problem

Total of assignable references: 397

(11 references excluded due to inability of exact sub-category assignment), n = 39

Based on the responses of the participants, the systemic cognitive facet can be elaborated as well (cf. Table 2).

*Table 2: Elaboration of topic areas for the systemic cognitive facet of financial literacy*

	Category with sub-categories (percent of total references, number of interviewees)	Operationalization	Anchor examples from transcripts
Systemic cognitive	Contexts of monetary and financial policy (29%, n = 22)	Contexts/relations which concern economic measures of a central bank or general monetary measures (exception taxes: own category)	Understanding inflation Shift of base rate
	Contexts of real economy (15%, n = 11)	Contexts/relations which concern the real sector or real economic parameters (e.g. employment, production)	Be familiar with the concept of GDP
	Economic contexts / relationships in general (30%, n = 31)	Remaining macroeconomic relations/parameters	Understanding economic news in the newspaper
	Knowledge about financial facts (2%, n = 5)	Factual knowledge about the financial context	Knowing the current inflation rate
	General conditions of the political system (9%, n = 17)	Political contexts associated with economic issues such as voting, elections, etc.	Be informed about forthcoming votes in respect of financial topics
	Social security system (9%, n = 11)	Statutory insurance system for old age, unemployment, illness and other risks	Understanding the system of unemployment benefits
	Tax system (15%, n = 16)	Contexts/relations which concern the tax system/fiscal measures of a geopolitical region (e.g. country)	Knowing what is done with the taxes
			Total of assignable references: 231 (4 references excluded due to inability of exact sub-category assignment), n = 36

Within the *systemic cognitive* facet, two topics turned out to be the most significant. These are (1) the “economic contexts/relationships in general” with 30 percent of the clearly assignable systemic cognitive references ( $n = 31$ ) and (2) the “contexts of monetary and financial policy” (20%,  $n = 22$ ). Moreover, other aspects are cited which can be subsumed under (3) “tax system” ( $n = 16$ ) and (4) “contexts of real economy” ( $n = 11$ ), each with 15 percent of the total number of clearly assignable systemic cognitive references, (5) “general conditions of the political system” ( $n = 17$ ) and (6) “social security system” ( $n = 11$ ), with 9 percent each, as well as (7) “knowledge about financial facts” (2%,  $n = 5$ ). In contrast to the individual cognitive aspects, it is striking that there is a relatively large heterogeneity in terms of level of detail and reflectivity within the different topic areas of the systemic cognitive facet; whereas, for example “knowledge about the market economy, to know what is going on at the stock exchange” (German interview #1, company trainer) is a vague formulation that leaves much room for interpretation. The following excerpt is very specific and characterised by a high reflectivity: “To include Fairtrade to some extent and then to discuss with the young adults, what they think how that is supposed to end when certain companies sell T-Shirts for three Euros. The clothing company should earn something, the seamstress should get something, then the cotton producer wants to have something and to discuss the whole thing a little bit more on global scale. And often it is the case that brand manufacturers permit producing in low-wage countries and often there is no difference. Thus, to walk through the world with one’s eyes opened” (Austrian interview #5, VET teacher).

An in-depth analysis of the utterances regarding the cognitive systemic facet, furthermore, revealed that some interviewees portray macroeconomic issues rather instrumentally in their function to serve personal purposes such as asset accumulation or success in the job market; whereas others see it in a more integrative way from the perspective of a responsible citizen for whom systemic knowledge is personally important, but also serves socio-economic purposes outside the sphere of mere economic logic and can be actively used to shape one’s economy and society through participation and one’s personal financial behaviour. This can be illustrated by the following two interview excerpts which were both coded to the field “economic contexts/relationships in general”: “I feel a great difficulty, no doubt, of young people doing that analysis of the impact of economic issues and in the micro context. [...] And I always try to make that connection; I try to explain that if we produce more it is possible to create more jobs. Creating more jobs, we have greater potential to have people with income from work and as a result there is more money in circulation, there is more consumption” (Portuguese interview #1, VET teacher) and “That in the end one is an economic community in the same country after all and that all are suffering, when the country is suffer-

ing. Or that all, unfortunately not all, but at least many, profit when an economy is prospering" (Swiss interview #3, VET teacher). Whereas in the first statement, systemic aspects are expressed in a functional way within the economic system, the second one adopts a more integrative and socio-economic perspective.

Within the *individual non-cognitive* facet, interest and awareness for (personal) financial matters as well as attitudes and values towards handling money in general are frequently represented. This is expressed in the following example: "to be able to build an autonomous opinion on different financial issues such as bank accounts, not just according to each one's values but also on the affective, motivational and emotional level" (Italian interview #3, VET teacher). Further, the participants bring up aspects such as discipline, self-control and delay of gratification, scepticism, e.g. towards commercials and the seduction of advertising, entrepreneurial attitude in one's private life and responsible consumption. As stated above there are not enough utterances and they are too heterogeneous to construct subcategories.

Concerning the *systemic non-cognitive* facet, participants frequently mentioned a positive attitude towards gathering information about financial and political-economic events and the willingness to participate as a citizen. The following two excerpts serve as typical examples: "Indeed financial literacy is functional to understand a number of processes, also social ones and not just economic, whose understanding is essential to orient oneself in exercising citizenship. Therefore, I should say that I'm good with the PISA definition (a complex of knowledge in the economic, financial and mathematical sphere), but I would rather widen the object of this literacy to consciously exercising duties and rights of citizenship and active participation in society" (Italian interview #3, VET teacher) and "what does it actually mean, when everyone just buys the cheapest products, it is a system after all, that cannot function like this. Therefore you try a little bit to promote critical thinking in this regard. In order to question if the cheapest solution is also the best one" (Austrian interview #6, debt counsellor). Somewhat less often, the appreciation of money and the macro-economy, solidarity and distributional justice as well as attitudes and reflections about the role of the market and the government have also been mentioned.

### *1.5.2 Judgments of the importance of the financial literacy facets*

The tendency of priorities outlined in the responses above can be found even more pronounced in the answers to the perceived importance of the different facets. When asking the interviewees for the "core" of financial literacy, from the total of 263 statements across all interview transcripts 189 (72 percent) can be assigned to the individual cognitive facet and were mentioned at least

once by 35 of the 40 interviewees ( $n = 35$ ). 41 statements (15%,  $n = 17$ ) are related to the systemic cognitive facet and only very few to the two non-cognitive ones (individual non-cognitive 8%,  $n = 11$ ; and systemic non-cognitive 5%,  $n = 6$ ). In relative terms, when it comes to the appreciation of the importance, non-cognitive and systemic facets are losing their significance.

Even within the individual cognitive facet a slight shift in importance can be identified. The topics “planning and managing financial matters” ( $n = 30$ ) and “saving money / building assets” ( $n = 16$ ) with 43 percent and 18 percent, respectively, are still represented prominently; however, “prevent (over-)indebtedness” is given more importance to than to the other two topic areas. “Over-indebtedness” is defined as the consequence of the “wrong” handling of own money leading into a debt cycle. About 12 percent of the statements of the participants can be assigned to this topic ( $n = 15$ ). The distinct importance of the debt issue can be substantiated by the fact that the two areas of competence “drawing up a budget” ( $n = 19$ ) and “planning expenses in accordance with own needs and possibilities” ( $n = 13$ ) have gained dominance and amount to 29 percent of the total number of the individual-cognitive statements. The area of competence “using banking and financial services for daily needs” is, however, not of the same significance anymore.

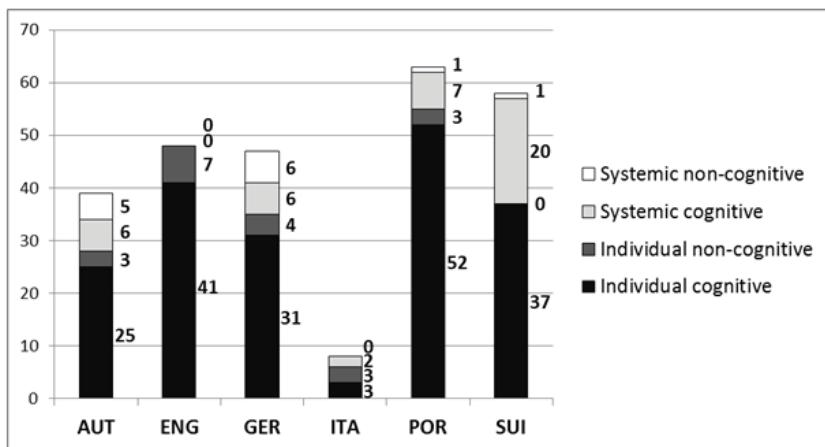
Concerning the systemic cognitive facet, the topics “contexts of monetary and financial policy” ( $n = 8$ ) and “economic contexts/relationships in general” ( $n = 7$ ) are quite dominant with 33 percent and 23 percent respectively, followed by the topics “social security system” ( $n = 3$ ), “contexts of real economy” ( $n = 2$ ) and “tax system” ( $n = 5$ ) with shares from 8 to 18 percent. Of no importance is “knowledge about financial facts” (0%,  $n = 0$ ). It is striking that in the context of the systemic cognitive facet the interviewees mainly focus on pragmatic aspects that are considered to be relevant for everyday life such as interest rates, inflation or taxes. The following two interview excerpts illustrate this observation quite well: “Particularly important is the knowledge of taxes and charges, how these come about, what is funded with taxes and what the consequences are for me” (German interview #2, company trainer) and “[t]he fact that money can lose its value, which is something they know partly, but not all of them. And they especially do not know what the implications of depreciation are for them. Inflation and deflation effects on interest rates and such” (Swiss interview #4, VET teacher). In-depth, critical or reflective statements concerning the economic and societal overall context (e.g. financial crisis) occur sporadically and more rarely than in the previous question about the perceived facets of financial literacy.

### 1.5.3 Comparison between countries and respondent groups

Finally, similarities and differences can be determined concerning the appraisal of the importance of the facets of financial literacy between countries and respondent groups, although these comparisons must be interpreted extremely cautiously because of the small sample size and further methodical limitations (see below section 6).

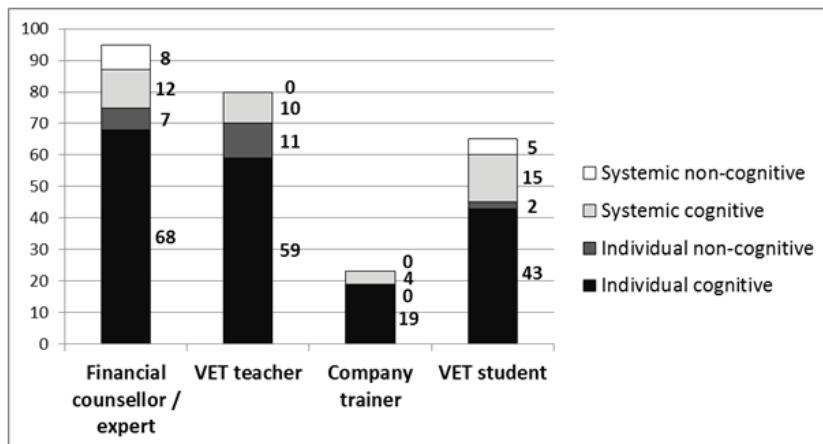
With regard to differences between countries (cf. Figure 1), mainly three tendencies are obvious. Firstly, a rather unequal distribution of references across the four facets of financial literacy can be determined. Individual cognitive statements dominate in all countries, whereas this phenomenon is especially pronounced in England and Portugal, where more than 80 percent of the responses can be assigned to this facet. Also, within the individual cognitive facet, an unequal distribution can be noticed. For the 36 overall references in the competence area of “drawing up a budget”, 18 were recalled by Portuguese interviewees and 10, by English participants, indicating an especially high relevance attributed to this competence area as a core aspect of financial literacy. Secondly, systemic cognitive aspects are considered to be relatively important for the Swiss interviewees (20 out of 58 references in total) compared to participants from other countries. In England for example, no systemic aspect, neither cognitive nor non-cognitive, was recalled at all. Thirdly, both individual and systemic non-cognitive aspects are much more present in the references of Austrian (8 out of 39 references in total) and German interviewees (10 out of 47) as illustrated by the diagram below.

Figure 1: Country comparison of the perceived importance regarding the facets of financial literacy



Comparing the responses between respondent groups, it appears that neither VET teachers nor company trainers mentioned systemic non-cognitive aspects when it comes to the core of financial literacy (cf. Figure 2). In contrast, financial counsellors/experts and VET students mention these aspects. It is interesting to highlight that all five references in the group of VET students can be traced back to one single female student. Similarly, four out of eight references in the group of financial counsellors/experts can be traced back to the same person working as a debt counsellor. Thus, only a very low number (six in total) of interviewed individuals throughout the respondent groups conceived systemic non-cognitive aspects as a core part of financial literacy. On the contrary, systemic cognitive references constitute almost a fourth of all the references in the VET students group, which is the highest relative ratio of all the respondent groups, whereas VET teachers, for instance, seem to be quite cautious in this regard. When asked to give reasons for their judgements, they justify them by the fact that they do not want to overwhelm the students with topics they are not able to understand. The content of the references concerning the individual cognitive facet does not differ essentially between the different respondent groups.

*Figure 2: Respondent group comparison regarding the perceived importance of the facets of financial literacy*



## **1.6 Conclusions and Outlook**

Based on a broad and theoretically substantiated framework of financial literacy (cf. in detail Aprea 2014; Wuttke & Aprea 2014) an interview study was presented in this paper, with which relevant topic areas in particular for the individual cognitive and the systemic cognitive facet of financial literacy could be specified and solidified, initially. However, the results of the study show that a broad view of financial literacy appears to be present only for a few of the interviewees. The people interviewed for this study evaluate the facets of the theory-based framework differently and emphasize mainly the aspects that are included in more restricted models such as the PISA Financial Literacy Framework (cf. OECD 2012). Systemic competence components and non-cognitive aspects of financial literacy are perceived to a lesser extent or considered as less relevant. This result, which is confirmed and reinforced by more comprehensive quantitative surveys (e.g. Aprea et al. 2014), is surprising, insofar, as findings on attitudes and delay of gratification – though not generated in the context of financial literacy – show how important these facets are (Forstmeier et al. 2011; Holodynski & Oerter 2002; Meier-Magistretti et al. 2013; Mischel et al. 1989; Mischel 2015). The same applies with regards to the systemic component. As illustrated by a recent UNICEF report (2014), systemic finance issues have a tremendous influence on everyday lives and future perspectives of our target group (i.e. adolescents and young adults) even in rich countries, and, therefore, should not be missed by an educationally sound conceptualisation of financial literacy. Given these considerations, it might be presumed that both, the interviewed stakeholders as well as the narrow conceptualisations of financial literacy seem to be characterized by systematic “blind spots”, and thus, much more effort in changing the public opinion might be required. In addition, the comparative results also give rise to the assumption that the awareness of the need for a broader conceptualisation of financial literacy might differ among different groups of stakeholders and countries. However, we are aware of the exploratory nature of our research, and of the fact that additional theoretical and empirical enquiries are needed in order to sustain our framework as well as our conclusions.

With regard to a theoretical elaboration of the framework, especially the following two aspects seem to be essential: On the one hand, the boundaries between a comprehensive vision of financial literacy, as promoted by our framework, and the broader concept of economic competence should be clarified. On the other hand, the relationships among the four facets of financial literacy need to be further explained and defined.

Future empirical studies should particularly consider more systematic sampling procedures, such as maximum variation sampling (cf. Kleining &

Witt 2001). Moreover, future studies should try to rule out possible biases caused by translation and interpretation problems in various stages of the study. For example, even by providing a template of our framework, it cannot be entirely excluded that interviewees and coders might not have a shared understanding, especially in relation to the terms “individual” and “systemic”. Furthermore, though the same group of interviewers conducted the interviews in their respective countries, the existence of interviewer variability between countries is also a possible source of unintended subjectivity. To overcome this problem (especially in an interdisciplinary, international and multilingual research team) intensive interviewer and coder trainings are required.

In addition to these considerations, the development and validation of diagnostic instruments for the acquisition of the various facets of the financial literacy framework is planned for the near future. Their significance can then be examined using appropriate external criteria.

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