

Editorial: Economic Competence and Financial Literacy of Young Adults – Status and Challenges

In modern society, the ability to deal with financial and economic matters is becoming increasingly important. This is true for both professionals – e.g., in the investment and banking sectors – and for individuals responsible for managing their financial and economic affairs in everyday life (Aprea et al., in press). This ability is generally described as economic competence, economic literacy or financial literacy. Despite the importance of these constructs, there is still a lack of clarity regarding the exact definitions, and specifically, which components they cover in detail. Furthermore, the terms economic competence and financial literacy are only loosely coupled. Economic competence is usually considered to be more comprehensive than financial literacy. However, recent research on financial literacy has followed a broader approach as well.

The increasing relevance of these competences is driven primarily by various socio-economic factors currently challenging most industrialised countries (OECD, 2005; e.g. structural changes in the financial services and in the labour market, decline of the welfare state, as well as demographic change). As a result, a wide-ranging transfer of risk from governments and employers to employees and consumers has occurred (e.g., reduced state-supported pensions, reduced health-care benefits). This imposes the responsibility to care for current and future financial security onto individuals. Furthermore, it is important that individuals using financial intermediaries and advisors understand the services that are being offered. This is particularly important for adolescents and young adults, as younger generations are more likely to have to bear more financial risks in adulthood than their parents. Finally, financial and economic issues play a vital role in current conceptions of citizenship education.

This book will concentrate on economic competence and financial literacy of young adults in the US, Europe and South America. The subjects of the research are mainly individuals who have begun an apprenticeship or university education. Economic competence and financial literacy are of special interest for this group because they are usually in the unique position of being responsible for managing their own financial affairs autonomously, often for the first time. Furthermore, economic competence is key to social participation and active citizenship.

Overview

The book contains two sections – the first section delves into financial literacy.

The first paper describes the development of a comprehensive financial literacy framework. This is followed by three papers that present results on different facets of financial literacy, starting with students' understanding of the financial system in the UK, and followed by results on financial literacy and financial behavior among young adults in the US, and finally, financially literate decision making in first-time homebuyers.

Section two of this book covers different facets of economic competence. This section opens with two papers analyzing economic competence, specifically the factors influencing the economic competence of students in upper secondary education. The first paper examines learners' economic competence in Switzerland and the second paper focuses on the effects of students' sociocultural background on economic competencies.

The following two papers concentrate on apprentices in the German dual system of vocational education. Their focus is on the importance of economic competencies as key elements of vocational development and on opportunity recognition as part of intrapreneurship competence. Finally, the last two papers are concerned with higher education, namely the increasing heterogeneity in business and economics students' prior knowledge and the necessity for teacher education to include a strong foundation in economics.

The following overview will briefly introduce each paper. We will outline the definition and characteristics of the underlying construct (financial literacy or economic competence), the research question, key findings and implications. We will also note connections between the two underlying constructs (economic competence to financial literacy or vice versa).

Section I – Financial Literacy

- (1) *Seraina Leumann, Michael Heumann, Fatima Syed, and Carmela Aprea: Towards a Comprehensive Financial Literacy Framework: Voices from Stakeholders in European Vocational Education and Training*

The authors present a definition of financial literacy that includes individual and systemic facets as a basis for their comprehensive framework of financial literacy. The individual facets cover financial decisions in daily life, and counselling and sales situations focused on the consumer. Based on a systemic orientation, the approach also covers contextual issues of the economy

and society, as well as economic and political framework conditions (second facet). Furthermore, both facets address cognitive (knowledge, skills and abilities) as well as non-cognitive (emotional, motivational and volitional) aspects of financial literacy. With this holistic approach, a series of interviews were conducted with experts to answer two research questions: (1) How do experts and stakeholders elaborate different facets of financial literacy within a holistic framework? (2) How important do experts consider each facet to be? Results show that a broad view of financial literacy is seldom present, as the interviewees generally focused on individual cognitive components, neglecting systemic and non-cognitive facets. Consequences are discussed in the paper.

(2) *Peter Davies, Fatima Syed, and Lindsey Appleyard: Secondary School Students' Understanding of the Financial System*

Comparable to the approach of Leumann and her co-authors, Davies et al. base their work on a comprehensive definition of financial literacy. This definition goes beyond financial literacy as a matter of personal responsibility, and includes the understanding of public money management and financial sector behaviour. Against this background, the authors conducted a number of interviews to investigate what conceptions young people hold about debt, risk, interest payments and time preference. Furthermore, the authors analyzed to what extent these conceptions are consistent across different contexts (such as individual, government, and banking sector). Their results identify several inconsistencies in young people's conceptions, and show fragmentation and misconceptions limiting students' thinking about public finances. Consequences and further research questions are addressed in the paper.

(3) *Elizabeth Breitbach and William B. Walstad: Financial Literacy and Financial Behavior among Young Adults in the United States*

The focus of this study is on financial literacy and financial behavior of young adults. Financial literacy is seen as a matter of responsibility for finance-related decisions of people, especially of young adults in the United States. The data used in the study is taken from the "National Financial Capability Study" (NFCS). The survey includes questions about financial behaviors related to matters like credit card use, household purchases, bank accounts, student loans, and retirement saving. In addition, the survey contains questions for measuring an individual's financial literacy. The results show that young adults in the US have significantly lower levels of financial

literacy than middle aged or older adults. Within the sample of young adults, females, minorities, and individuals with low levels of education and income were found to have especially low financial literacy. The NFCS data set was also used to study the relationship between financial literacy and different financial behaviors. In line with previous assumptions, young adults with higher levels of financial literacy are less likely to exhibit costly or problematic financial behaviors.

- (4) *Bärbel Fürstenau, Mandy Hommel, Claudia Leopold, Héctor Ponce, and Mario López: Analysis of Banks' Online information Regarding Mortgages as a Basis for Financially Literate Decision-Making in First-time Home Buying*

The authors base their article on the widely recognized definition of financial literacy as “knowledge and understanding of financial concepts and risks, and the skills, motivation and confidence to apply such knowledge and understanding 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 2013: p. 144). They argue that in order to make responsible decisions, individuals need to be familiar with concepts, procedures, effects, and risks related to complex financial products. The authors believe it is not sufficient to rely on the recommendations of financial product providers. They list home purchases and mortgage loans as two specific examples of fields that require financial literacy. Consumers often rely on information and calculators provided online, often by banking institutions. Against this background, the authors investigate possible similarities and differences between bank calculators within and across countries. They explore whether differences between banks' calculators and reference calculators exist. Their results show that the calculators differ remarkably between countries, sometimes being far from the recommendations.

Section II – Economic Competence

- (1) *Doreen Holtsch and Franz Eberle: Learners' Economic Competence in Switzerland: Conceptual Foundations and Considerations for Measurement*

This paper presents and applies a competence structure model to commercial apprentices. The authors provide a comprehensive understanding of economic competence, which has been developed within the framework of the

Swiss Leading House *Learning and Instruction for Commercial Apprentices* (LINCA). The definition comprises both cognitive and non-cognitive aspects. In line with the objectives of Swiss economic education, two domains are taken into account: a civic-economic and a commercial domain. Finally, within these dimensions, domain-specific and domain-related competencies are differentiated and specified. Instruments to measure economic competencies have also been developed.

(2) *Andreas Jüttler and Stephan Schumann: Effects of Students Sociocultural Background on Economic Competencies in Upper Secondary Education*

There is a large amount of research focusing on sociocultural effects within educational systems, but a shortage of research on economic competencies. This paper aims to address this gap by providing deeper insights into the relationship between learners' sociocultural characteristics and economic competencies. The research analyzes data from a representative sample of high school graduates from Baccalaureate Schools and Federal Vocational Baccalaureate Schools of the German speaking part of Switzerland ($N = 2.348$). A broad definition of cognitive and non-cognitive dimensions is used to measure economic competencies. The results show that differences in economic competencies are mainly explained by the school profile (such as a commercial vs. non-commercial school profile). In addition, migration background variables influence competencies. However, the effect is rather small. No significant effect for other sociocultural variables can be observed.

(3) *Esther Winther, Dagmar Festner, Julia Sangmeister, and Viola Katharina Klotz: Facing Commercial Competence: Modeling Domain-Linked and Domain-Specific Competence as Key Elements of Vocational Development*

The study aims to identify the relationship between domain-linked and domain-specific competencies. Both types of competencies are seen as crucial elements of vocational competence for apprentices in commercial domains. A comprehensive model, including both domain-specific and domain-linked vocational competencies is used. Using a computer-based test environment, competences of $N = 468$ industrial apprentices were assessed. Results show that domain-linked competences significantly influence the mastery of commercial and economic situations at the workplace. Furthermore, there is evidence that commercial competence can be distinguished into a domain-linked and domain-specific dimension.

(4) *Christine Weiß and Susanne Weber: Opportunity Recognition as Part of Intrapreneurship Competence – An Analysis of Exam Essays of German Industrial Clerks*

In this paper, the authors address the importance of opportunity recognition within VET as part of intrapreneurship competence. The paper frames the topic around fundamental political, socio-economical and educational changes. The researchers use a broad understanding of intrapreneurship on an individual level whereby continuous innovations are seen as the result of intrapreneurial thinking and acting. Furthermore, the authors provide a three-stage model of opportunity recognition, which is based on an evidence-centred assessment design and combines convergent and divergent thinking. The study focuses on industrial clerks at the end of their three-year vocational training program in Germany. The results indicate that opportunity recognition is very important for enterprise success as well as for trainees' ability to shape their occupational career autonomously. Additionally, an objective, reliable and valid model of opportunity recognition is provided by the authors, which can be used for future research.

(5) *Roland Happ, Olga Zlatkin-Troitschanskaia, Klaus Beck, and Manuel Förster: Increasing Heterogeneity in Students' Prior Economic Content Knowledge – Impact on and Implications for Teaching in Higher Education*

The authors address the issue of increasing heterogeneity among business and economics students in higher education, especially when it comes to prior content knowledge. A longitudinal multi-level model was developed to explain differences in economic content knowledge of students over time. The German adaption of the widely used Test of Economic Literacy (TEL, Soper & Walstad, 1987) by Beck and Krumm (1998) was used to measure students' economic knowledge. Students' prior knowledge was identified based on their educational background. The authors found that students' initial knowledge, especially prior content knowledge, had a significant influence on academic achievement. The research indicates the importance of providing teachers with formative performance assessments, and information about students' prior knowledge. Finally, the impact of teaching methods such as "Just-in-Time"-teaching or tailor-made preparation courses for students are discussed.

(6) *Christin Siegfried: The Necessity for Well-Founded Teacher Education in Economics – Findings from Curriculum Analyses*

Due to the increasing importance of economic knowledge in modern society, it is argued that economic education should be offered in general education. This implies that teachers in general education should receive an economic education themselves. In Germany, most federal states have implemented economic education in schools, however, teacher education shows some deficits. By analyzing school curricula (middle and grammar school) and university based learning opportunities, the author presents notable discrepancies between university and school curricula. Deficits also exist in middle and grammar schools curricula. The initial results suggest that prospective teachers in the field of economics lack teaching qualifications (especially content knowledge). Therefore, the development of adequate school and university curricula are important to match prospective teachers' to the needs of students in economic education and the demands of a modern society.

Outlook

The papers in this volume represent different approaches to measure and analyze financial literacy and economic competence. It becomes apparent that the conceptualizations are quite different. Some concepts are more comprehensive (such as the approaches to financial literacy presented by Leumann et al. and Davies et al. or the approach of economic competence presented by Holtsch & Eberle and Jüttler & Schumann), whereas others focus more strongly on specific facets of a respective competence (for example, Fürstenau et al. with home buying as one facet of financial literacy or Happ et al. with economic knowledge as facet of economic competence).

The increasing trend in identifying financial literacy as a broad construct, demonstrates the need for a systematic alignment with the concept of economic competence. The first step towards this is a stronger mutual consideration of literature on these concepts. So far, both strands are only loosely coupled. Furthermore, a stronger interrelation of financial literacy and economic competence will have major implications for measurement, results (and their interpretation) and for the development of support strategies in educational and private contexts.

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