

Entrepreneurship Education in Mathematics Education for Future Primary School Teachers

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Abstract

Teachers act as role models and through their activities are active co-designers of future generations. Independent thinking and taking responsible, sustainable actions form the basis for a vibrant society. Entrepreneurship skills can already be fostered in primary school children. This requires well-trained primary school teachers. The following text deals with the contents of “*Entrepreneurship Education and Mathematics*”, which the curriculum provides for primary school children as well as for students of primary school education. In a case study the author describes the implementation of a course at the University College of Teacher Education Vienna/Krems as taught since 2015.

Key words: entrepreneurship education, primary school, teacher training, collaborative learning, sustainability.

Society Needs Entrepreneurs

Critical, independently thinking people who act responsibly and sustainably form the corner stone of a lively society. Creative, active people keep society, culture and the economy moving and in constant development. Every person, regardless of age, profession or social status, is challenged to work for positive change, according to the above-mentioned statement of peace activist Mahatma Gandhi. People who take on this task can be described as *entrepreneurs*. The word derived from the French (“entre” and “prendre”) actually means “undertaking,” but according to the definition of Schumpeter (1911) it should not only be translated as “entrepreneur”, but also as “key drivers of economic and social dynamics” (Lindner, 2018, p. 116). “Schumpeter emphasized their skill and abilities in the independent development and implementation of ideas and pointed out their innovative power, which encompasses the creation of new products, production processes, organizational structures or alternative distribution channels” (Lindner, 2018, p. 116).

Entrepreneurship Education can be defined as the learning process by which knowledge, skills and abilities are imparted to help learners develop and implement their own ideas. An emancipatory Entrepreneurship Education emphasizes the socio-pedagogical relevance for any society and can therefore be seen as a door opener for disadvantaged social groups. Entrepreneurship education is thus defined as an instrument of equal

opportunity, as stakeholders learn how to participate in society (Lindner & Hueber, 2017, p. 238). *Economic education* can be described as the endowment of individuals with the knowledge, skills, abilities, willingness and attitudes to cope with life situations shaped by economy. (May, 2010) *Financial (general) education* is an aspect of economic education and is regarded as the basis for an active participation in society. Financial education is therefore closely linked to entrepreneurship education. (Lindner & Hueber, 2017, p. 237) According to Reifner (2017), financial literacy must enable consumers to “acknowledge their own needs and resources, relate them to the possibilities of satisfying them through market-based financial services, and create understanding in people so that they use their rights, market power and political influence so that financial services are of benefit for them” (Reifner, 2017, p. 129). Hedtke (2018, p. 17) takes a critical view of the term “*education*” in relation to “financial education”: “He emphasizes that many definitions of financial education represent the concept of education in an extremely narrow way by focusing exclusively on the process of developing financial competence. “Here we find a remarkably modest concept of education that sees education as a process that has reached its goal by achieving a certain level of competence and then comes to a standstill until a new situation calls for new competences. This approach turns the traditional understanding of education upside down; it downgrades education to a means of competence” (Hedtke, 2018, p. 17) In this article, the concept of financial education emphasizes “reflection” as a central element of personal (financial) education and also considers practice-oriented competences as essential, according to the definition by Reifner.

Teachers as Role Models and Co-Creators of Society

Teachers are thus given an important task, because the roots of entrepreneurial thinking are already laid in childhood and decisively influenced by educational and upbringing processes. Teachers act as role models and through their activities become active co-designers of future generations. They have a significant impact on the ethical, environmental, economic and social mindsets of primary school children, so any teaching, especially in the area of financial education, must be perceived with the utmost sensitivity and responsibility. Teachers must therefore first reflect on their own self-image concerning the subject of money. This includes questions that relate to personal circumstances, such as: “What does money do to me? How do I want, how should I and how must I deal with money? [...] How does money affect my own life? [...] What does money mean for my relationships with others? How does money shape our life in society?” (Hedtke, 2018, p. 17).

Fridrich (2017, p. 216) interviewed teachers in teacher training courses how they assess the importance of economic education concerning the areas of learning and experiencing economics in primary schools. He comes to the conclusion that school-based economic education is of particular importance “because problematic economic perspectives and patterns of action originating from different family backgrounds as well as commercial interests of entrepreneurs can be reflected and compensated”. “This is where the need for a readjustment in the initial and continuing training of teachers becomes obvious” (Fridrich, 2017, p. 216). Weber also regards financial education at schools as highly relevant, as children move between the roles of being active consumers, influencers when making purchasing decisions and vulnerable consumers” (Weber, 2017, p. 209).

The topics of “*Entrepreneurship education and mathematics*”, which the curriculum provides for primary school children as well as for students of primary education, are dealt with below. This includes how students acquire the necessary teaching competences and how they implement them in the school practice accompanying their studies.

Curricular and Content Anchoring

Equipping young people with the knowledge and skills necessary for life and their future profession is one of the central tasks of the Austrian school system. The development of judging independently and the ability to participate in the economic and cultural life of Austria, Europe and the world are also essential educational goals. In order to fulfil this mission, schools must enable young people, among other things, to fulfil their roles as economic citizens, as gainfully employed persons and as consumers in a “competent and morally responsible” manner (BMBF, 2015, p. 1). The Austrian curriculum takes the demand for early financial education and the acquisition of financial competencies of primary school children into account, especially in the subjects of *social studies* and *mathematics*, as well as in the overall teaching principles. The teaching principle of “economic education (including education about savings and consumer education)” is intended to give pupils an understanding of the multifaceted competencies required – not linked to a specific subject but in a cross-curricular approach. The teaching principle of economic education represents one of the twelve teaching principles which are to be implemented in everyday school life by means of a reasonable coordination of the subjects taught, making use of cross-connections, as well as the “use of suitable additional teaching materials and, if necessary, the occasional use of external experts” (BMUKK, 2009, p. 24).

“Basic Decree” on the Principle of Economic and Consumer Education

The principles and guidelines for economic and consumer education are valid for “all school levels of all school types” (BMBF, 2015, p. 6). Particular emphasis will be placed on consumer education to safeguard the personal interests of all people participating in economic life. However, economic skills should not only serve the role of consumers, but also contribute to the employability of people (BMBF, 2015, p. 1). Economic action has social and ecological consequences and side effects. At the same time it aims at reducing environmental pollution and promoting sustainable consumption habits. “Economic education ultimately affects the whole person, it is work on one’s own identity” (BMBF, 2015, p. 1). The guidelines do not only aim at fostering individually useful competences, but rather aim at educating critically reflective and sustainability-oriented consumers, economic citizens and business citizens. Furthermore, “The Basic Decree” points out that a number of developments make the consistent and widespread implementation of this teaching principle increasingly important: “the supply of products and services is greater than ever, the degree to which young people are influenced by peer groups and the media is very high at the same time; markets are increasingly liberalized and deregulated; almost all areas of human life are now commercialized, empirical studies provide indications of deficits in the basic economic education of the population; orientation in an economy characterized by globalization and enormously accelerated technological change is becoming increasingly difficult; insight into the importance of

sustainable economic activities is growing without resulting in sufficient consequences on an individual and political level” (BMBF, 2015, p. 2). In order to achieve the goal of “making people able to find orientation and action competence to act in everyday life situations in a world characterized by economy” (BMBF, 2015, p. 3), the guidelines list a number of competences that are required. For work in primary school, i.e. for the age group of six- to ten-year-old children, some of these competences appear to be particularly relevant.

The pupils

- reflect the influence of media and advertising and put them into perspective [...]
- consider the consequences of their own consumer and economic behavior [...].
- are able to manage their own finances, to make decisions in accordance with their own economic circumstances [...] equipped with sufficient mathematical basic competences,
- a range of subjects in the primary school curriculum provides opportunities to reach these competencies:

Primary School Curriculum

In the curriculum of primary schools, *social science* in the first and second school years includes “Business Experience and Learning” and requires students to gain a “first understanding of supply and meeting demands” and to acquire “basic knowledge of work and earnings” (BMUKK, 2009, p. 151). In the third grade, the contents of the first two years are broadened and “economic interrelationships are understood”. In the fourth grade “knowledge about economic forms, about work, occupation and recreation” are added. Pupils learn to understand “connections and their significance for shaping their present and future lives” (BMUKK, 2009, p. 162). In *mathematics*, “money” appears in the curriculum area of “mathematical quantities”, but on a rather modest scale. As with all quantities, the formation of terms should first take place in an action-based way. “Developing model concepts of money are to be based on the value of objects from children’s lives” (BMUKK, 2009, p. 227) Amounts of money can be shown for example as 5 Euro and 20 Cent/5€20c as well as 5,20€ This is an exception in primary education, as generally there is no provision for using decimal numbers in primary school. Calculations should be limited to simple and meaningful contexts (BMUKK, 2009, p. 226f).

Necessary Knowledge about the “Concept” of Money in Primary School

Even school beginners have previous knowledge of the concept of money. Money, however, is not a measured variable compared to other variables dealt with in primary school. It is not a physical value. Its value is not stable like, for instance, with linear dimensions. As a *counting parameter*, it is characterised by a number of special features that have to be taken into account in the classroom:

- Units of our currency are Euro and Cent, other terms as used in measuring length (km-m-dm-cm), are not used. There is no further differentiation of monetary units. One cent is the smallest unit. Coins and notes represent monetary units, possibly also in other currencies.

- For a direct comparison of two amounts of money, a 1:1 comparison counting is necessary.
- Money is not a physical value as it requires a different concept of measuring. Its value is not stable like for instance with linear measures. When working with linear measures you can see at a glance that something is longer or shorter. This is not so easy with a pile of coins. You may have to convert the coins in order to establish the monetary value of a pile of coins.
- Money has no distinct decadic structure (one, tens, hundreds, thousands...). Apart from one euro coins, ten euro notes and one hundred euro notes, there are also five, twenty, fifty euro notes and so on. Money as a “calculating tool” should therefore only be used in a meaningful setting (Franke/Ruwisch, 2013, p. 231). Franke and Ruwisch regard money as “a useful structured and didactic tool for the representation of calculation paths”. The author, however, warns against the use of money as “computing material” to represent computing paths, since the unclear decadic structure can be confused by the presence of extra units.
- In math text problems, however, using money makes sense to relate to our way of life and thus represent a means of coping with everyday life. In the first and second school years, fictitious game situations (e.g. a shop working with cent amounts only) are suitable for not immediately confronting the children with mixed amounts of money (euros and cents).
- The concept of “monetary value” is closely linked to the history of money as a medium of exchange and emphasises its economic function. E.g. children attribute more value to an old cuddly toy than to a new more expensive toy. Schoolchildren develop a feeling for what one can buy for a certain amount of money.
- Money has no standardized value; its monetary value is unstable. Prices vary, for example, according to season, demand or package sizes. It is therefore not possible to measure the price of a product objectively. This distinguishes the concept of money from physical quantities.
- The price of a product is experienced differently by different people, a product can seem cheap to one person, and someone else finds it very expensive (Grassmann, 2017, p. 246; Franke & Ruwisch, 2013, p. 231; Summer, 2017, p. 255).

Course on Financial Education: Heterogeneity-Sensitive Mathematics Teaching

A course of primary school pedagogy at the University Teacher College Vienna/Krems takes eight semesters (“Bachelor”) or ten semesters (“Master”). In order to make students competent in the field of financial education, they acquire the necessary knowledge in this subject area and can apply and implement it immediately in their weekly school practice accompanying their studies.

In the third semester, the course “Heterogeneity-sensitive Mathematics Teaching” is offered in module prim3-05 (“Teaching Diversity and Individuality in Mathematics and Science”). Among other topics, the focus is put on “applied mathematics based on the national educational standards”. *Working with quantities*, data and their representation, *factual tasks*, the modelling cycle and functional thinking are also dealt with

(KPH, 2019, p. 134). In their studies of mathematics this course provides students with an advanced input of financial education together with a situation-specific treatment of the topic. Due to the intensive study of this subject area, an increasing number of students write their bachelor theses in the field of financial education. In dealing with the subject of “mathematical quantities” students discuss the significance of money both with regard to a mathematical-computational approach and with regard to the teaching principle of economic education (including savings education and consumer education).

Implementation of the Course

1. Input by the lecturer, self-reflection. After the content input (see above) on the value of money students are motivated to take on a self-reflective task. Questions like “What does money do to me? How will, should or must I deal with money? What does money mean for my relationships with others? How does money shape social relations?” are first answered individually, and then discussed in groups. The results mostly revolve around the topics “postponing needs”, “When is making debts justified?” “Donations and charitable activities?” The students soon become aware of their being role models as teachers: “How credible am I when I talk about sustainability, but buy a new mobile phone, a car every year?”

A presentation of possible subject areas related to financial education with additional research inputs followed the discussion. Students worked in small groups of two to four people. As many different areas as possible were dealt with, but always with reference to mathematics. Having clarified special subject areas, the groups worked independently over a period of about eight weeks outside the course on the deepening of their knowledge, their preparation and implementation in the practical setting of a classroom⁵. The content chosen by the students was tested immediately with the children and the feedback given by the children as well as an evaluation of the teaching unit(s) were included in the final presentation. In the following weeks, other areas of mathematical quantities suitable for primary school classrooms were discussed in this course. Additionally students had the opportunity to receive coaching or reviewing on their topic after each course.

2. Presentation by the students in a “Market of Possibilities 2”. Approximately eight weeks after the first input, the subject areas were presented by the students in a “Market of Possibilities”. The projects performed by the students were very different, some of them are presented here as examples:

- *Class shop*

Two students used a class shop in their weekly school practice in a first grade. In a familiar “toy shop” situation, toys were purchased at unrealistic prices with play money, for example a doll at a price of five euros. These tasks are also often found as “shop window tasks” in textbooks. However, the situation does not correspond to real life: the value of the goods does not correspond to reality; prices without decimal places are unusual. Goods are paid for with play money.

At the class shop (see Summer, 2017, p. 256), the children were able to experience a realistic shopping situation with *real* money. Small snacks such as banana chips, butter biscuits, peanuts or jelly beans were sold. Accordingly, prices were only in the cent range, for example a biscuit cost three cents, a jelly bean two cents or a peanut one cent. Parents were requested to give their children cent coins of small denomination. It

makes sense to agree on a “maximum purchase amount” (see Hölzel, 2011, p. 7f). In this specific case, the students initiated the class shop and the children were then allowed to shop for a maximum of seven cents a day for one week – until the students had their next practice. The children learned how to plan their purchases sensibly, how to make the money last and, if necessary, how to check the change. This real situation offered a range of ideas for topic-related tasks, which the students worked on with the children in the following week.

- *Videos for classroom use*

A group of students made themselves familiar with video material which could be a useful addition to financial education in primary school. The “Sparefroh/Happy Saver TV” series is highly recommended. It was developed in cooperation with the Austrian Federal Ministry of Education, Science and Research, the “Initiative for Teaching Entrepreneurship (ifte)” and the “Competence Centre for Value-Based Business Didactics” of the KPH. The students used the short video “The Value of Things – Why Do Some Things Cost More Than Others”, which lasted less than three minutes (Sparefroh TV, 2015) as an introductory sequence to a teaching unit on the topics of material and immaterial values as well as sustainability. The children gave very positive feedback. According to the students, the contents were very easy for the children to understand and provided the basis for a successful discussion in the third grade. Then the students played the quiz “Kosten & Bekommen” (Costs & Getting) (teaching materials for Sparefroh TV, p. 46f) with the help of a presentation on a projector, after presenting the television program 1, 2 or 3. Questions about the different immaterial and material values of things had to be answered, for example: What’s most valuable to you?:

1. the first scoop of ice cream you want to buy in spring,
2. the 55th scoop of ice cream that day,
3. the 10th scoop of ice cream you’re eating that day.

The game led to an enormous increase in the children’s learning of immaterial and material values, but also to discussions about different values.

- *Role play to illustrate the development of money from trade by barter to paper money*

In a fourth grade classroom three students acted out the “History of Money” using short role plays wearing authentic robes. They first showed the beginnings of bartering (meat was exchanged for rare spices) and the development of banknotes. When they lifted a sack of coins they understood how heavy and unpractical it was to carry coins around and therefore paper money was eventually invented. In the course of the lesson, the children considered which of the items they brought with them could be exchanged “under fair conditions”. A profound discussion developed as the children realized that a bottle of water, for example, did not have much material value but could have a life-saving effect in the desert. At the end of the lesson, the children considered which three items they would take to a desert island. The mobile phone was ranked first with most children.

Ecological Footprint – Comparison of Cheap and Organic Products

Two students compared the prices of goods in a “shopping basket” (for example, one kilogram of bread, one kilogram of apples, one liter of milk, one bar of chocolate, ...)

that had been agreed upon with the children beforehand – starting from a lesson on the subject of “Plastic in the Oceans”. During an excursion the cheapest possible foodstuffs were looked for at a supermarket, photographed and the prices noted down. The same categories of food were bought in an organic grocery shop avoiding plastic wrapping. In the subsequent mathematics lesson, the two totals were determined and discussed under various aspects (sustainability, food appearance, health, affordability...).

Sham Packs, Giant-Size Packs

Three students dealt with the topic of sham packs and giant-size packs. They brought various boxes of cornflakes to a third grade class and had the children mark the estimated contents of the goods on the box. It turned out that some boxes were only half full. Then different goods (e.g. pasta, shower gel) with the same content but different packaging were examined. The “research results” astonished the children very much and they came to the conclusion that it was essential to pay attention to the filling quantity indicated on the product. Finally, the unit price of different giant-size packages (e.g. waffles) was calculated and compared. This was followed by a lively discussion whether buying giant-size packs was necessary or reasonable.

Youth Start – Challenge “Developing a Sense of Price and Value”

Two students dealt with the offer of “You Start Entrepreneurial Challenges” (Youthstart, 2018) and implemented the challenge “My Personal Challenge – developing a sense of price and value” in a fourth grade classroom. The children learned how to assess the prices of products and services and to find out information about these prices. The value of products and services was also reflected and compared by classmates. The children were enthusiastic about the discussion and the increase in learning was great. More detailed information on the Youth Start program can be found in issue (Bisanz et al., 2019).

Sonja wants a new phone. She sees these offers:

<p><u>Offer 1:</u> MyPhoni for only € 0,- Monthly €49,- “24 months commitment” (you have to pay for at least 24 months)</p>	<p><u>Offer 2:</u> myPhoni only €608,- monthly 19,-</p>
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A phone you get for free? She thinks that’s great.
Offer 2 is very expensive for Sonja. What would you advise Sonja to do? Give Reasons.

Figure 1. Text task mobile phone costs (Benischek et al., 2017, p. 24)

- *Tasks related to mobile phones*

Students took the fact that many children would get their own first mobile phone after primary school as an opportunity to work on tasks related to mobile phone offers. This corresponds to the curricular demand for relevance. “The child’s environment pro-

vides the appropriate setting” (BMUKK, 2009, p. 227). The following task was presented to the children and they worked out solutions in small groups.

In the following discussion, the topics of mobile phone usage, required data volume and additional services such as free text messages were discussed. Finally, the children presented their calculations with regard to the task. The children decided from which period of time the second offer would be cheaper. They calculated the annual, monthly and daily mobile phone costs based on an assumed operating life of two years.

- *Financial planning – Billing a Project Week*

One student used the mathematics lesson in a fourth grade to jointly bill the project week that had already taken place. All bills for bus trips, admissions, tips and concert tickets were added and finally divided by the number of children. The costs were recalculated against the contributions already made. The children were highly motivated by this real life context and their personal involvement in the task.

- *Displaying Money Amounts Differently*

Starting with a lesson on the history of money and the development of the security features of coins and banknotes, two students prepared “quizzes” about the different ways of representing amounts of money in a third grade classroom. They started with a revision: The children had to be able to determine amounts of money (i.e. to determine the amount of a given collection of coins and notes), but also to display amounts of money in different ways and be able to change sums of money. At the same time, the question of the value of notes and coins as well as the distinction between their number and value were addressed: It does not depend on the number of coins or the size of a coin, but on their value. Finally, questions such as “How can you represent this amount with as many as possible/as few as possible/exactly seven coins or notes,” were solved in an action-oriented way using play money. Finally, the findings were entered into a table. It became evident that the children were obviously used to dealing with money and that there were hardly any problems in answering the questions.

- *Estimate, compare and judge prices*

Children develop clear concepts regarding the standard units of euro and cent. To this end, three college students brought various goods worth up to one hundred euros into the classroom (second year primary school). First of all, children arranged these items from the cheapest to the most expensive product. Each child first thought about their personal ranking, then the children solved the task together. They understood that it was useful to indicate price intervals (less than one euro, one to three euros, three to five euros ...) for the items. It turned out that the children were able to assess the products chosen from their sphere of life well, especially in the lower price segment. In the course of the teaching unit the Youthstart (2018) worksheet 3 “Checking prices” was used. The children evaluated statements, e.g. “a hair dryer costs 150 euros” and discussed the origin of prices.

Conclusion

Financial education is at the heart of public interest and is perceived as an urgent desideratum. At the center of primary school education (for children from six to ten years of age) many competences can realistically only be touched upon for the time being: This can be the children’s ability to reflect on their own needs, to develop the ability to

judge the influence of advertising, to get information about the possibilities of saving money, the emergence of money and the money cycle, to acquire an ability to judge ecological and social consequences and of course the mathematical possibilities of handling money as well as a critical examination of the topic.

By participating in the course described, students deepen their knowledge and analyse their attitudes towards money and financial education. They test and evaluate a teaching sequence on this topic. They are aware that it is not their mission to teach and influence, but to encourage children to acquire self-determined and critical thinking competencies. The course is constantly evaluated and further developed in line with changing requirements. It is one piece of the jigsaw in Entrepreneurship Education for students at the University College of Teacher Education Vienna/Krems.

Notes:

(1) The “practical school studies” at our university, which accompany the studies, enable the students to spend one morning per week in a primary school, whereby they must teach at least one teaching unit themselves.

(2) Each group prepares a material or presentation-based “information stand” at which at least one group member stays and provides further explanations and clarifications to their peers. The other participants can move freely and get information at the other “stands” in the seminar room. (Compendium of Methods 2006)

References

- Benischek, I., Summer, A., & Zeindl-Steiner, R. (2017). *Mathematik Bildungsstandards* [Mathematics educational standards]. Wien: G & G.
- Bisanz, A., Hueber, S., Jambor, E., & Lindner, J. (2020). Social entrepreneurship education in the primary school: Empowering every child with the Youth Start Entrepreneurial challenges. *Discourse and Communication for Sustainable Education*, 10(2), In press.
- BMBF. (2015). *Grundsatzterlass zum Unterrichtsprinzip Wirtschafts- und Verbraucher- bzw. Verbraucherinnenbildung* [Basic decree on the principle of economic and consumer education]. Wien: BMBF.
- BMUKK. (2009). *Lehrplan der Volksschule* [Syllabus of the primary school]. Wien: BMUKK.
- Franke, M., & Ruwisch, S. (2013). *Didaktik des Sachrechnens in der Grundschule* [Didactics of mathematics in primary school]. Heidelberg: Spektrum.
- Fridrich, C. (2017). *Ökonomische Bildung in der Primarstufe* [Economic education at the primary level]. In Braun, H., & Beer, R. (Eds.), *Erziehung und Unterricht* (3–4). *Finanzerziehung in der Grundschule* [Journal for Education and Instruction (3–4). Financial education in primary school]. (pp. 212–220). Wien: Obv.
- Grassmann, M. (2013). *Die Größe “Geld(werte)” im Mathematikunterricht der Grundschule* [The dimension “money” in elementary school mathematics lessons]. In Braun, H., & Beer, R. (Eds.), *Erziehung und Unterricht* (3–4). *Finanzerziehung in der Grundschule* [Journal for Education and Instruction (3–4). Financial education in primary school] (pp. 245–253). Wien: öbv.

- Hedtke, R. (2018). *Anpassen oder aufklären? Finanzerziehung und sozioökonomische Bildung* [Adjust or clear up? Financial education and socio-economic education]. *GW-Unterricht* [Journal for Geography and Economic Instruction], 152(4), 14–30.
- Hölzel, B. (2011). *Im Klassen-Kaufladen* [In the classroom shop]. *Grundschule Mathematik* [Journal for mathematics in primary school] 28/2011. Seelze: Friedrich, 6–9.
- KPH Wien/Krems. (2019). *Curriculum. Bachelorstudium als Voraussetzung für ein Masterstudium zur Erlangung des Lehramtes Primarstufe* [Bachelor's degree as a prerequisite for a master's program to obtain a teaching degree in primary education]. Wien: KPH Wien/Krems.
- Lindner, J., & Huemer, S. (2017). *Entrepreneurship Education für Volksschüler*innen* [Entrepreneurship Education for elementary school students]. In Braun, H., & Beer, R. (Eds.), *Erziehung und Unterricht* (3–4). Finanzerziehung in der Grundschule [Journal for Education and Instruction (3–4). Financial education in primary school] (pp. 237–244). Wien: öbv.
- Lindner, J. (2018). Entrepreneurship education for a sustainable future. *Discourse and Communication for Sustainable Education*, 9(1), 115–127.
- May, H. (2010). *Didaktik der ökonomischen Bildung* [Didactics of economic education]. München: Oldenburg.
- OECD. (2017). *G20/OECD INFE Report on Adult Financial Literacy in G20 Countries*. Hamburg: G20/OECD. Retrieved from <http://www.oecd.org/daf/fin/financial-education/G20-OECD-INFE-report-adult-financial-literacy-in-G20-countries.pdf>
- Sparefroh TV. (2015). *Unterrichtsmaterialien inkl. DVD rund um das Thema Geld* [Teaching materials incl. DVD about money]. Wien: Erste Group. Retrieved from <https://www.sparkasse.at/sparefroh/medien/sparefroh-tv#multimedia/1/5> [10-08-2019].
- SSBS. (2006). *Methodenkompodium* [Compendium of methods]. Retrieved from www.sachsen.schule/~sud/methodenkompodium/module/ansatz2/3_5_5.htm [10-08-2019].
- Summer, A. (2017). *Finanzerziehung 2.0. Praktische Realisierungsmöglichkeiten in der Grundschule* [Financial education 2.0. Practical realization in elementary school]. In Braun, H., & Beer, R. (Eds.), *Erziehung und Unterricht* (3–4). Finanzerziehung in der Grundschule [Journal for Education and Instruction (3–4). Financial education in primary school] (pp. 254–261). Wien: öbv.
- Weber, B. (2017). *Verbraucherbildung in der Grundschule – zum Status Quo in Deutschland* [Consumer education in primary school – to the status quo in Germany]. In Braun, H., & Beer, R. (Eds.), *Erziehung und Unterricht* (3–4). Finanzerziehung in der Grundschule [Journal for Education and Instruction (3–4). Financial education in primary school] (pp. 203–211). Wien: öbv.
- Youthstart. (2018). *Entrepreneurial Challenges*. Retrieved from <http://www.youthstart.eu/en/>

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