

Online Appendices 1 and 2

The Impact of High School Financial Education: Evidence from a Large-Scale Evaluation in Brazil

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APPENDIX 1: Details of the Financial Education Curriculum

A1.1 General Description

The material used in the school financial education program in Brazil includes: (i) a student textbook, (ii) a student exercise book, (iii) a teacher guidebook, and (iv) a teacher training DVD. All materials were developed by the Pedagogical Support Group (GAP: *Grupo de Apoio Pedagógico*). This Appendix describes the content of the student textbook in detail.¹

The student textbook is divided into three blocks and covers nine different themes. Each theme is taught through case studies/didactic situations (SDs), consisting of theoretical and applied content, activities and self-evaluative questions. SDs make use of texts, stories, images, and tables to convey the material in an accessible way. SDs also contain “experiment” sections that are designed to make the material relevant to students’ daily life. SDs conclude with a short outline of what is expected from the student in terms of learning.

The rest of this Appendix describes the themes included in each of the three blocks.

A1.2 Block 1

The first block discusses three themes: everyday family life, social life, and personal property.

THEME 1: EVERYDAY FAMILY LIFE

In everyday family life, students are exposed to common situations where they have to make decisions that impact their family’s financial wellbeing. This theme is covered in 7 sections:

1. Agenda and Planning
 - Record expenses regularly
 - Know where you spend money
 - Estimate the value of items purchased
2. Calendar
 - Make a list of personal and family expenses
 - Classify expenses as “fixed” or “variable”
 - Prepare a monthly budget separating “fixed” and “variable” expenses
3. House Repairs
 - Compare different repair cost estimates
 - Compare interest rates for personal loans
 - Decide whether to take a loan or use money previously saved
4. Supermarket
 - How to avoid overspending on “temptation” goods
 - To distinguish good and bad behaviors when going shopping
 - Advance decision making on items to purchase

¹ The student exercise books and the teacher guidebooks and DVDs were meant to support the material covered in the student textbooks and did not offer new material of their own. The student exercise book provided assignments to students based on material taught through the textbook. Similarly, the teacher guidebook and DVD provided instructions on teaching and assessment methods for the course material, as well as examples of how to integrate the financial education curriculum into regular school learning.

5. Balancing
 - Distinguish and categorize personal and family expenses
 - Assess the importance of these different expenses
 - Identify spending categories where cuts can be made
 - Prepare a 5% spending-cut plan
6. Unforeseen Circumstances
 - Understand the value of insurance
 - Understand the specific vocabulary of insurance products
 - Identify alternative methods of prevention
7. Matching spending to earnings
 - Classify income sources as “fixed” and “variable”
 - Prepare a table with family incomes
 - Analyze how family spends and saves money

THEME 2: SOCIAL LIFE

In social life, students are exposed to situations where they have to make financial decisions about their personal and social lives. This theme is covered in 7 sections:

1. What a waste
 - Analyze personal expenses and identify waste
 - Avoid waste
 - Identify actions that can lead you to spend more than necessary
2. Let's get this party started
 - Make estimates of the quantity of food and drinks necessary for a party
 - Make a budget for a party
 - Plan an environmentally friendly party
 - Identify pitfalls when making estimates
3. To give in or not to give in to peer pressure... that is the question
 - Organize financial information in a way that can be easily explained to others
 - Learn and apply concepts such as interest rates, risks and returns to everyday situations
4. Buying on credit
 - Identify elements of a credit card bill
 - Identify financial behaviors that lead to credit card debt
 - How to use a credit card in a responsible manner
5. Camping
 - Identify expenses involved in going camping
 - Always keep funds for unforeseen events
 - Prepare a financial plan to go camping
6. “Viva São João!”
 - Prepare a business plan for organizing a party to celebrate the São João holiday
7. Don't fall victim to advertising
 - Identify financial pitfalls of credit card advertisements
 - Analyze various options available for credit

THEME 3: PERSONAL PROPERTY

In personal property, students learn from situations where they have to make personal shopping decisions. This theme is covered in 7 sections:

1. In search of the perfect shoes
 - Calculate the difference between the price paid in cash and the one paid with credit
 - Decide if it is better to pay in cash or with credit
 - Find specific information in the Consumer Defense Code
2. Computer
 - Identify the opportunity cost of owning a computer
 - Balance wants and needs when choosing a computer
 - Compare prices
 - Calculate the necessary savings in order to buy a computer
3. Digital camera
 - Follow similar steps as with purchasing a computer
4. If by magic...
 - Identify the elements of advertising aimed at generating consuming desire
 - Identify the conflict between desires and needs
 - Be wary of temptation traps and impulsive spending
5. Cell phone
 - Choose a cell phone that best fit your needs
 - Choose a plan that best fits your needs
 - Understand your cell phone bill
6. Consumer protection measures?
 - Identify cases of abusive practices and consumer rights violations
 - When to reach out to the Foundation for the Protection and Consumer Advocacy (PROCON)
7. Changing money
 - Convert the value of products priced in foreign currency to local currency
 - Know how the value of a credit card purchase in foreign currency appears in local currency on the bill

A1.3 Block 2

The second block discusses three themes: work, entrepreneurship, and large projects.

THEME 4: WORK

In work, students discuss several aspects of their current and future professional lives. This theme is covered in 7 sections:

1. What line of work?
 - Identify the type of work that attracts you the most
 - Decide on the most appealing type of job according to your life ambitions
2. First job
 - Prepare a CV
 - Identify the skills that are compatible with advertised positions

- Appropriately highlight your professional qualities in a simulated job interview
- Combine your desired job with the type of life you want to have
- 3. Gross vs net income
 - Differentiate gross and net income
 - How to explain this concept to others
- 4. Good times and bad times
 - Understand the concept of structural unemployment in a made-up story
 - Identify measures to overcome unemployment
- 5. The incredible story of the 13th salary that disappeared
 - Make a budget based on data and estimates
 - Make a financial plan in order to achieve a positive balance at the end of the month
 - Consider future situations in current monthly planning
- 6. Lifelines
 - Prepare an outline of a retirement plan, harmonizing long-term goals and the means to achieve them
- 7. *Antenor*, the wary employee
 - Develop a product and the message for an information campaign about insurance
 - Utilize the vocabulary of insurance as it applies to an information campaign

THEME 5: ENTREPRENEURSHIP

In entrepreneurship, students learn about practical issues of creating and running a business. This theme is covered in 7 sections:

1. A great idea
 - Differentiate entrepreneurs driven by necessity and by opportunity
 - Relate own characteristics with business opportunities
 - Identify needs in own community that may generate a business opportunity
 - Brainstorm to generate good business ideas
2. What are your talents?
 - Distinguish between “knowledge”, “skill”, “attitude”, and “competencies” in the context of entrepreneurship
 - Evaluate if you possess the necessary knowledge to open a particular business
 - Evaluate if you possess the necessary skills to open a particular business
 - Evaluate if you possess the necessary attitudes to open a particular business
3. Profession: entrepreneur
 - Identify the characteristics of an entrepreneur
 - Differentiate entrepreneurship from intrapreneurship
 - Test if you have the profile of an entrepreneur
4. The soul of a business
 - Identify the target audience of a fictitious business
 - Create a brand and slogan for a fictitious product or service
 - Put together a fictitious marketing plan
 - Carry out market research for a fictitious product or service
5. Hands to work
 - Identify resources necessary to open and run a business

- Budget for opening and running a fictitious business
 - Determine the knowledge, skills, attitudes, and competencies of the personnel necessary to work in a fictitious business
6. Victory
 - Make sales and profit projections for a fictitious business
 - Measure the profit of a fictitious business
 - Cut costs and expenses related to products or services of a fictitious business
 7. Beyond profit
 - Distinguish between philanthropy and socio-environmental responsibility
 - Make a plan of socio-environmental responsibility for a fictitious business
 - Put together in a business plan all the information on entrepreneurship learned in this theme

THEME 6: LARGE EXPENDITURES

In large projects, students are exposed to situations that involve significant financial outlays. This theme is covered in 7 sections:

1. Brick by brick
 - Balance the desires and needs of your family when choosing a house to purchase
 - Search for information on prices and financing for a house
 - Decide how much your family is willing to spend as a function of the household budget
 - Plan financially for the down payment and installments of a home mortgage
2. Surprise
 - Create a budget for a party
 - Plan a party that suits your financial situation
 - Make provisions for unforeseen expenses
 - Cut expenses according to your priorities
3. In your corner
 - Make investment decisions in a simulated market situation
 - Make an initial investment decision, taking into consideration family and personal preferences
4. She talks about the same thing all day long
 - Identify rights and duties that are not being met in a certain situation
 - Generate arguments to debate rights and duties of investors
5. Consumption and savings
 - Make consumption and savings decisions in a simulated situation
6. Now it's my turn to help my parents
 - Decide between two debt application options, taking into account interest rates
 - Explain how to avoid indebtedness
 - Come up with options to pay off a debt of R\$ 1000 (US\$ 583)
7. How much distance separates you from your future
 - Estimate fixed and variable expenses in order to study in another city
 - Calculate the monthly income necessary to study in another city
 - Make a financial plan to study in another city

A1.4 Block 3

The third block discusses three themes: public goods, the country's economy, and the world economy.

THEME 7: PUBLIC GOODS

In public goods, students address several issues concerning the use and financing of public goods and services. This theme is covered in 7 sections:

1. Everything has a price
 - It is always the case that someone pays for the public goods you consume for free
 - Calculate how much the government spends to sustain a high school class in a public school
2. School budget
 - Think about the school and its budget
 - Suggest improvements to the school that are feasible
3. School books
 - Identify the reasons for high environmental cost of school books
 - Calculate the consumption of paper in school
 - Identify actions that can save paper
 - Develop and engage in a campaign to save paper
4. Public spaces
 - Everyone has the right to access free public spaces
 - Maintenance of public spaces is costly and is paid for through taxes
 - The individual tax burden can be reduced if all citizens pay their taxes
 - Consult the community in order to know which public spaces need to be improved
5. Public services
 - A public budget is very similar to a family budget
 - The legislature – senators and congressmen – decides the public budget
 - Link the public duty to pay taxes with the government's duty to provide public services
6. Corruption
 - Corruption affects the lives of everyone because it reduces the money that the government can invest in public services
 - Check public accounts through public records
7. Taxation
 - Link the public duty to pay taxes with the government's duty to provide public goods and services
 - Understand the purpose of different taxes paid by citizens
 - Develop and engage in a campaign to provide incentives for citizens to pay their taxes

THEME 8: THE COUNTRY ECONOMY

In the country economy, students are exposed to several aspects of their country's economy that are relevant for their personal lives, including the concept of inflation, the law of supply and demand, the concept of minimum wage, and the basics of the national financial system. This theme is covered in 7 sections:

1. Culture and sports
 - Prepare an outline of a project for a cultural or sporting activity
 - Align the objectives of a project to the *Rouanet* Law (Law that provides tax incentives to private firms for supporting cultural activities)
 - Understand the sections of the laws concerning education that contain financial vocabulary
2. Inflation
 - Recognize the problems that inflation can generate when changes in income do not follow the increase in prices
 - Make adjustments in the family budget taking inflation into consideration
 - Explain the concept of inflation to someone else
3. Supervisors of the national financial system
 - Explain the national financial system to someone else
4. Speaking in economic terms
 - There exists a direct relationship between the nation's economic growth and the growth of a family's personal income
 - Families with low income can also organize themselves financially
5. Markets
 - Demand and supply simulations
6. Foresight
 - Estimate the income and expenses of a retired person
 - Prepare a simulated financial plan for a retired person
7. Minimum wage
 - Research prices to estimate the total value of the basic needs of a person
 - Link the value of the basic needs of a person with the value of the minimum wage

THEME 9: THE WORLD ECONOMY

In the world economy, students are exposed to several aspects of the world economy that are relevant for their personal lives, such as the concept of imports and exports, international economic blocks, and measures of a country's wellbeing. This theme is covered in 7 sections:

1. Special issue on money
 - Contextualize the role of money in society
 - The importance of saving money
2. International cooperation
 - Identify the complications involved in international negotiations
 - International economic blocks organize themselves through arrangements that are negotiated
3. The game of economic blocks
 - Experience, in a game, some of the issues concerning international economic blocks
 - Think about simulated strategies of global conflict resolution
4. The business of China
 - Identify the imported products that you use in everyday life
 - Locate the countries where the imported products you use in everyday life come from

→ Search for data on national and international exports

5. International Organizations

→ Reflect upon the profile and the performance of representatives of a country in an international community

→ Develop a funding proposal for an international financial institution

6. The well-being of your country

→ Compare the Human Development Index and the GDP per capita for different countries

→ Link the economic performance of a country with its environmental impact

7. Moment of crisis: do I care?

→ Establish the relationship between an economic crisis and situations of your personal life

→ Identify ways to overcome the impact of an economic crises for individuals

APPENDIX 2: Questions Used to Construct Preference Measures

Financial Autonomy Index

- Reflexive Autonomy:
 - I like to think thoroughly before deciding to buy something
 - I like to research prices whenever I buy something
 - I make sure to get information on warranty periods
 - I always try to obtain more information on product quality
 - I pay attention to news about the economy as it may affect my family
- Emotional Autonomy:
 - I like to participate in family decision making when we buy something expensive for home
 - I usually have a critical view of the way my friends deal with money
 - I take part in domestic expense planning
 - I try to advise my parents on money matters
 - I feel prepared to talk to my parents about money matters
- Functional Autonomy:
 - I always try to save some money to do things I really like
 - I always like to negotiate prices when I buy
 - I suggest at home that we keep money aside for emergencies
 - I keep an eye on promotions and discounts
 - I am willing to make sacrifices now to buy something important

Intention to Save Index

A total of 21 questions go into the intention to save index. The possible answers to each question are on a seven point scale, with answers ranging from extremely negative to extremely positive.

- Attitudes towards behavior
 - Complete the following statement “In my opinion, saving some money every month is...” – Answers ranging from
 1. Extremely harmful to extremely beneficial
 2. Extremely unpleasant to extremely pleasant
 3. Extremely bad to extremely good
 4. Extremely useless to extremely useful
- Subjective norms
 - To which extent do you agree with the following statement – Answers ranging from completely false to completely true
 5. “My family has the habit of saving some money every month.”
 6. “I have friends who save some money every month.”

- Perceived control over one's own behavior
 7. To which extent do you agree with the following statement: "I believe that I can save some money every month." – Answers ranging from completely false to completely true.
 8. Complete the following statement "For me, saving some money every month is..." – Answers ranging from extremely difficult to extremely easy.
 9. To which extent do you agree with the following statement: "Whether or not I save some money every month is in my own hands." – Answers ranging from completely disagree to completely agree.

- Attitudes about the possible effects of behavior
 10. To which extent do you agree with the following statement: "Saving some money every month would allow me to buy things I need." – Answers ranging from completely agree to completely disagree.
 11. Complete the following statement "For me, saving to allow me to buy the things I need is..." – Answers ranging from extremely bad to extremely good.
 12. To which extent do you agree with the following statement: "Saving some money every month is a good way of making sure I never accumulate debt." - Answers ranging from completely agree to completely disagree.
 13. Complete the following statement "In my opinion, borrowing money and accumulating debt is..." – Answers ranging from extremely bad to extremely good.

- Motivation for following subjective norms
 - All Answers ranging extremely unlikely to extremely likely.
 - 14. To which extent do you agree with the following statement: "My family hopes that I am able to save some money every month."
 - 15. "When it comes to spending and saving, how likely are you to follow your family's opinion?"
 - 16. To which extent do you agree with the following statement: "My friends would support me if I decided to save some money every month."
 - 17. "How likely are you to follow your friends' opinion about savings habits?"

- Perceived benefits of one's own behavior
 18. To which extent do you agree with the following statement: "Managing my expenses and not wasting money is essential for saving some money every month." – Answers ranging from completely agree to completely disagree.
 19. Complete the following statement "For me, managing my expenses and not wasting money is..." – Answers ranging from extremely difficult to extremely easy.
 20. To which extent do you agree with the following statement: "In order for me to save, it's essential that I avoid borrowing money and getting into debt." – Answers ranging from completely agree to completely disagree.
 21. Complete the following statement: "For me, being able to avoid borrowing money and getting into debt is..." – Answers ranging from extremely difficult to extremely easy.