

## **Financial Education for Adults - Women beneficiaries of the Bolsa Família Program (PBF) and Retirees with income of up to two minimum salaries**

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### **Curriculum Overview of Professor, PhD, Claudia Forte**

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### **Abstract**

The article presents the results of the Impact Evaluation carried out in the Financial Education Program for Women Beneficiaries of the Bolsa Família Program (PBF), belonging to the Ministry of Social Development (MDS), and Retirees with income of up to two minimum salaries, belonging to the Ministry of Finance (MF), involving 3,878 women and 3,142 retirees in 49 municipalities in Brazil, in 5 regions, for 3 years. This program aims to promote the increase of financial literacy and changes in habits and behaviors, in order to develop skills and abilities that help to manage the family budget efficiently wherein for women beneficiaries the objective is to promote autonomy and for retired the objective is reduction of superendividations. The methodology used was the one of experimental experience and made possible live with beneficiaries in their houses, seeking to understand consumption habits and the decision-making. Some of the results indicated by the Impact Evaluation identified a 10% improvement in financial planning, a 6% increase in knowledge about financial planning, and a 43% increase in saving capacity, among others for women and for retirees there was a decrease of 40% of those who self-declared defaulters, 36% increase in spending on basic needs, 13.2% improvement in retirees who calculate their monthly balance. The change in behavior through the development of skills and abilities, as well as the acquired knowledge, demonstrated that decision making becomes more conscious, promoting autonomy and better meaningful in the quality of life of the family and the family environment.

**Keywords:** Women; Bolsa Familia Program; Financial education; Decision making; Retired.

### **1. Introduction**

The present article aims to show the relationship between financial education and the behavior of individuals - women beneficiaries of the Bolsa Família Program (BFP) and Retirees with income of up to two minimum wages. The first part presents the Financial Education Association of Brazil - AEF-Brazil - as well as the National Strategy for Financial Education - ENEF - and the National Committee for Financial Education - CONEF. The general and specific objectives of the Adult Financial Education Program, the presentation of the Program, the justification for the choice of target audiences and the social technologies developed are presented below. Soon

after, the methodology used in the field and in the evaluation of the impact of the Program and, finally, the results obtained.

## **2. Presentation of the Financial Education Association of Brazil (AEF-Brasil)**

Financial Education Association of Brazil - AEF-Brazil, is an OSCIP, Civil Society Organization of Public Interest, created in 2012 by the National Committee for Financial Education - CONEF, to support the National Strategy for Financial Education - ENEF, Decree No. 7,397<sup>1</sup>, of December 22, 2010

For centralized coordination, ENEF proposed a governance structure that reconciles the need for integration of private and public entities, which have an interest in promoting financial education, preserving the independence of financial system supervisory bodies to develop their own education actions (ENEF, 2012).

The governance of ENEF should contemplate the following spheres, according to the Master Plan of the National Education Strategy (2012):

- a) **Strategic:** formed by the National Committee for Financial Education (CONEF), responsible for the direction, promotion and supervision of ENEF.
- b) **Consultative:** formed, initially by GAP (Pedagogical Support Group), responsible for pedagogically guiding content development.
- c) **Coordination:** the ENEF will be coordinated by an exclusive purpose entity, not integrated into the structure of any of the ministries, in order to ensure the management balance between the markets and interested segments.
- d) **Execution:** carried out through the supervisory and oversight bodies of the national financial system and of private and public conducting partners that develop Financial Education programs or actions to integrate ENEF.

The strategic sphere, formed by CONEF, is, according to the Master Plan of the National Strategy for Financial Education (2012), composed of: President of the Central Bank of Brazil (BCB); chairman of the Securities and Exchange Commission (CVM); superintendent of the National Superintendence of Complementary Pensions (PREVIC), Superintendent of the Superintendence of Private Insurance (SUSEP); executive secretary of the Ministry of Education (MEC); executive secretary of the Ministry of Finance and executive secretary of the Ministry of Justice (MJ).

It is established as competence of CONEF, as indicated in the Master Plan of the National Strategy for Financial Education (2012, p.118):

regulate ENEF, being able to contemplate programs, plans and actions; establish guidelines and objectives for ENEF planning, financing, execution, evaluation and review; set up working groups with specialized activities to provide technical support; and to approve its bylaws.

ENEF's performance is imminent in the adult audience segment, because it is the working public that deals with money, consumes, saves and invests. And, in order to have a strategy for this segment, factors such as Brazilian territorial dimension, difficulties of access to information by a large part of the population, cultural diversity, educational level, age group, niche, differences of interest, among others (ENEF, 2012).

According to the Master Plan of the National Financial Education Strategy (2012, p. 111), some target audiences, themes and actions that may be the object of a program for the adult segment were established, namely:

- a) **Target publics:** military, civil servants, formal and informal workers, liberal professionals, university students, housewives, unemployed, retired, rural workers, beneficiaries of social programs, Brazilians residing abroad, others.
- b) **Themes:** financial inclusion, consumer protection, personal finance concepts, concepts of the national financial system, credit and microcredit, conscious consumption, pension, retirement preparation, investments, insurance, capitalization, others.
- c) **Actions:** portal, lectures, publications and booklets, seminars, regional meetings, competitions, call centers, advertising campaigns, courses, television programs, radio programs, fairs, cultural spaces, scheduled visits, etc.

### **3. Objectives of the Adult Financial Education Program**

#### ***3.1 General objective***

Developing skills and abilities so that women beneficiaries of the BFP and retirees with incomes of up to two minimum wages can efficiently manage the family budget in order to achieve objectives, promoting financial autonomy through change in behavior and attitude, involving the making of individual decision and impacting the family environment.

#### ***3.2. Specific objectives***

1) Immersing themselves in the context of beneficiaries and retirees in order to understand them and to know their financial habits, defining personas that mark the creations of technologies; 2) To develop social technologies adhering to beneficiaries and retirees, based on the acquired knowledge, testing them in three rounds for refinement of prototypes; 3) Systematize the social technology to the end of the tests, taking into account the criteria of adequacy to the public, financial viability and scalability; 4) Carry out a pilot project and impact assessment with systematized technologies, applying them to a treatment group and comparing data with a control group (who did not have access to the technologies); 5) Disseminate social technologies to existing programs and policies, making them available in a web environment and articulating partnerships.

### **4. Adult Financial Education Program**

#### ***4.1 Justification for choosing the target audiences***

Brazil is a non-poor country, however, it faces a great deal of social inequality that makes it possible to exclude a significant part of the population from access to the minimum conditions of inequality and citizenship (BARROS, HENRIQUES & MENDONÇA, 2000).

In front of this reality, the Bolsa Família was created, which is a "program that contributes to the fight against poverty and inequality in Brazil (MDS, 2015). Created in October 2003, it has three main axes, according to the website of the Ministry of Social Development (2015):

1. **Income supplement** - Every month, the families served by the Program receive a cash benefit, which is transferred directly by the federal government. This axis ensures the most immediate relief from poverty.

2. **Access to rights** - families must meet certain commitments (conditionalities), which aim to strengthen access to education, health and the cycle of poverty through better opportunities for social inclusion.

Important - conditionalities do not have a punitive logic; but rather of guaranteeing that basic social rights reach the population in poverty and extreme poverty. For this reason, public power at all levels also has a commitment: to ensure the provision of such services.

3. **Articulation with other actions** - Bolsa Família has the capacity to integrate and articulate various social policies in order to stimulate the development of families, helping them to overcome the situation of vulnerability and poverty.

In 2000, during the UN meeting, 191 countries signed a commitment to combat poverty and other social problems in the world, resulting in the drafting of the UN Millennium Declaration<sup>2</sup>. The Declaration opened doors to the establishment of the Millennium Development Goals (MDGs), an international effort to achieve development in: social and racial equality, environment and human and women's rights. Divided into 8 goals to be achieved by 2015, with 21 goals and 60 indicators the themes are: End hunger to misery; Quality basic education for all; Gender equality and women's empowerment; Reduce child mortality; Improve the health of pregnant women; Combat AIDS, malaria and other diseases; Quality of life and respect for the environment; Everyone working for sustainable development.

According to the Millennium Development Goals (MDGs) released by the UN in 2015, efforts to achieve the eight goals have been successful, despite the shortcomings and difficulties. The data presented in the Millennium Development Goals Report 2015<sup>3</sup> show that even the poorest countries have made progress as a result of consistent strategies, with specific interventions, political will and adequate resources.

In September 2015, from the MDGs emerged dialogues and negotiations that resulted in the adoption of a new global agenda of goals and objectives to be achieved by 2030, during the UN Summit on Sustainable Development, are the Sustainable Development Objectives (SDOs). Agreed among the 193 UN member states, the 17 goals and 169 targets provide for global action in the areas of poverty eradication, agriculture, food security, education, health, gender equality, energy, water and sanitation, sustainable patterns of production and consumption, among others.

The ODS themes can be categorized into four dimensions: the **social**, issues related to human needs, such as education, justice and health; **economic**, thinking about situations of depletion of natural resources, energy consumption and waste production; **environmental**, about conservation and preservation of the environment, thinking about forests, oceans and climate change; and **institutional**, dealing with the possibilities of implementing the SDOs.

The UN member countries have taken responsibility for the implementation of the objectives without legal obligation, however, they assume the establishment of national milestones for the achievement of the goals. In this sense, it is up to them, through data collection, to monitor and review progress in this implementation.

In addition to the questions presented, "*The SDOs are part of a larger context - the Agenda 2030 - and represent a synthesis of the challenges created by the exceptional economic growth, technological advancement and population growth that occurred in the 20th century*", as mentioned in the paper Instituto Ethos e GVces - Center for Sustainability Studies in 2016 about companies and SDOs.

The Bolsa Família Program, provided by law - Federal Law No. 10,836, dated January 9, 2004 - and regulated by Decree No. 5,209 of September 17, 2004, and other standards, since 2011, is part of the Brasil Sem Miséria Plan, which brought together various initiatives to enable families to leave extreme poverty, granting effective access to basic rights and opportunities for work and entrepreneurship (MDS, 2015).

According to the website of the Ministry of Social Development (2015), the Program still has a decentralized management, ie, both the Federal Government, the states, the Federal District and municipalities have attributions in their execution. If analyzed at the federal level, we find that the Ministry of Social Development (MDS) is responsible for the Program, and Caixa Econômica Federal is the agent that executes the payments and is dynamic, that is, every month, there are families that enter and others that leave the program.

In order to acquire the benefits of the Bolsa Família Program - which include Variable Benefit Linked to the Child or Adolescent from 0 to 15 years old (being required to attend school for children and adolescents between 6 and 15 years of age), Variable Benefit Linked to the Pregnant Woman and Variable Benefit Linked to the Nutriz (people who have children between 0 and 6 months old, to reinforce the baby's feeding, even in cases where the baby does not live with the mother) - it is necessary that the person enroll in the Cadastro Único for Social Programs of the Federal Government, and the families interested should go to the Bolsa Família and Cadastro Único sectors in their city and, in many places, registration can also be made at the Social Assistance Referral Centers (CRAS) (MDS, 2015).

According to the website of the Ministry of Social Development (2015), the granting of the benefit depends on how many families have already been served in the municipality, compared to the estimate of poor families made for that locality. In addition, the federal government must respect the budgetary limit of the program.

Forte (2006, p. 46), notes that

despite the process of development through which Latin America is passing, rigid roles that relegate women to the reproductive sphere still prevail in some parts of Latin America. These traditional roles lead to inequalities and the inefficient use of resources by families in their struggle against misery and toward socioeconomic development. Key gender issues still outstanding on the agenda of many countries include classic issues such as violence against women, effective incorporation of women into the economy and access to credit.

In order to maintain a focus on families living in conditions of poverty and extreme poverty, the Bolsa Família Program has periodic mechanisms of control, causing families to be withdrawn from the program, with the main reasons for not updating the registration information or improving income, resulting in the non-adequacy of the profile for the receipt of the benefit. Other reasons that lead to loss of benefit are the noncompliance with commitments in the areas of education and health, in the latter case because the objective of conditionalities is to strengthen the access of the poorest families to social rights or voluntary. However, for this to happen, it is necessary for it to go to the Bolsa and Cadastro Único sector in the municipality and request voluntary termination (MDS, 2015).

The Ministry of Social Development reported that currently there are 12.7 million families receiving the benefit of the program, with 90% of the women enrolled. Single mothers and heads of households accounted for 42% of the beneficiaries. Of the total number of enrolled beneficiaries, 30% have completed elementary education and have great difficulty in entering the labor market, with very variable income sources.

Currently in Brazil, according to Portal do Brasil (2017), women have gained space in the labor market, occupying 44% of jobs in 2016, mainly in the public administration and services sectors. Still in the evaluation of the portal, this is due to the advances of the labor laws that allowed the growth of this workforce and, consequently, the income generated from the feminine work, that gains more and more importance in the family sustenance. It should be taken into account that, even with the increase in the insertion of women in the labor market, there is much to be done in relation to their participation in managerial and managerial positions in companies and organizations (Porta Brasil, 2017).

In Brazil, according to the *Síntese de Indicadores Sociais: uma análise das condições de vida da população brasileira* (IBGE, 2016), the composition of the elderly population increased from 9.8% to 14.3%. According to this report, a substantial increase of 11.7% is forecast for 23.5% of this population over a period of 24.3 years, in addition to the speed with which this will occur.

In a report that appeared in the Infomoney news portal and was written by Veronesi (2014), it is presented that through a study prepared by SPC Brasil (Credit Protection Service) in partnership with the financial education portal Meu Bolso Feliz, found that 57% of Brazilians reach the third age without any kind of financial reserve or investments. Still in this report, it was informed that almost half of the 632 elderly people interviewed (47%) guarantee that they think about the family future and end up doing things that they would like to maintain a financial reserve. Due to a lack of financial reserves, of the population over 60 years of age resort to loans and end up not honoring the payment (VERONESI, 2014). Therefore, identifying a social technology of financial education focused on the elderly and addressing the issue of over-indebtedness is necessary for this population.

#### **4.2 Program organization**

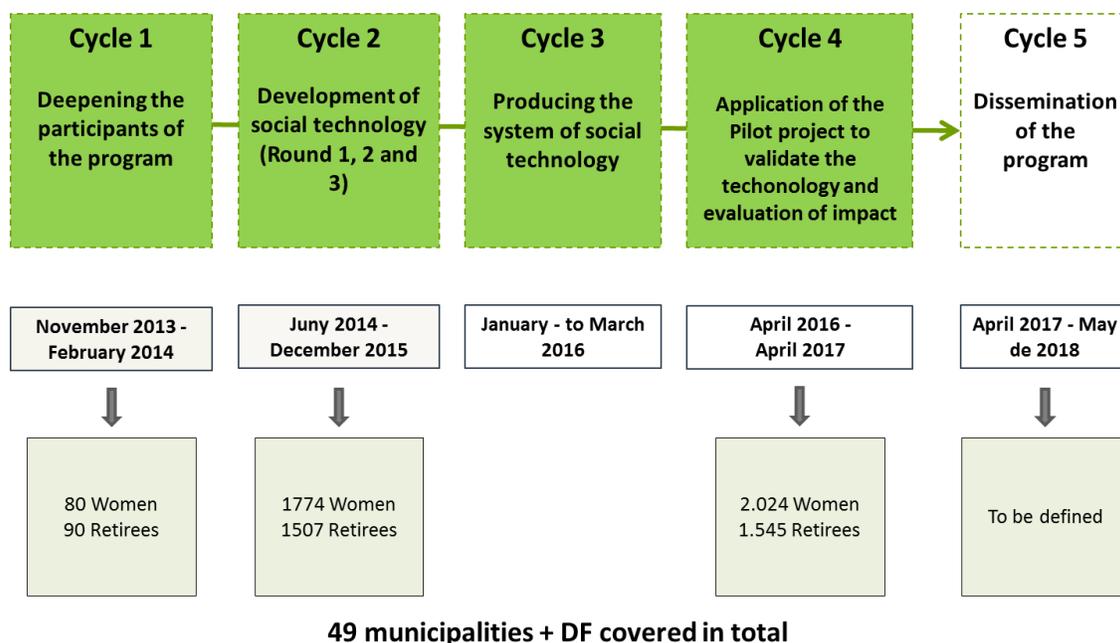


Figure 1. Program Steps  
Source: Author's Consolidation

The project was structured around five cycles that allowed the understanding of the context of women beneficiaries of BFP and retirees, the definition and testing of prototypes of social technologies developed with target audiences and target publics, and the systematization of social technologies, generated the final kit, the application of the final social technologies in financial education workshops for CRAS (Center for Social Assistance Center) and CCI (Center for the Coexistence of the Elderly) together with the impact evaluation to verify if the program generated positive impact on the lives of beneficiaries and retirees and, finally, the dissemination of social technologies developed to other beneficiaries and retirees that are distributed throughout Brazil. The details of each cycle are discussed below:

**Cycle 1 - Deepening on beneficiaries of BFP and retirees:** immersion in the context of beneficiary women and research and documents of the Bolsa Família Program, to understand the program's functioning and financial behavior patterns of the beneficiaries. There were 4 months of field research (November 2013 to February 2014) and counted on the participation of 80 women in 15 municipalities in the N, NE and SE regions, urban and rural areas, as well as riverine communities resulting in 4 different "*personas*" that inspired the production of social technologies, namely: dreamy (has a low responsibility for the use of money due to the impulse to consumption, the challenge being to encourage them to make more mature and conscious financial choices and to provide instruments for that); visionary (generates wealth and income and generates risks and investments, the challenge being to support them in the expansion and protection of their assets and to stimulate their multiplier role); survivor (it has limited resources optimization, the challenge being to potentialize the scarce resource management talent to empower them) and the warrior (has a focus on short-term choices, the challenge being to develop a vision of risks and orientation so that they can be planned in the medium and long term).

Immersion in the context of retirees with income of up to two minimum wages to understand the program's operation and financial behavior patterns of this target audience. There were 4 months of field research (November 2013 to February 2014), and there were 90 participants in 12 municipalities in the N, NE and SE regions, urban and rural areas, resulting in 4 different "*pers onas*" who inspired production of social technologies, namely: dedicated (has for reasons of super-indebtedness the donation and the realization of the desires of others, the challenge being found to set limits and make the retiree look at itself); (it has as a motive of super-indebtedness the undertaking and investment in adverse situations, the challenge being to show the risks and unforeseen circumstances to this retiree); resigned (it has as its motives for super-indebtedness the financial abuses, inconsistent choices and ignorance, the challenge being found to empower and isolate this retiree) and the hedonist (has as reasons for super-indebtedness impulsive consultation, vanity and the prioritization of the present, being the challenge found to give sustainability and discipline to this retiree).

**Cycle 2 - Social Technology Development (Prototypes):** based on the findings of Cycle 1, ideas were generated on ways to contribute to the reduction and prevention of over-indebtedness. Based on feasibility criteria of application and dissemination, ideas were chosen that became prototypes - that is, initial samples that can turn out to be a social technology, bringing demonstration of content, language, format. During this Cycle, there are 3 rounds of prototyping and in each one the prototypes were refined, excluded or incorporated, until the final version arrived. 1,774 women participated in 27 municipalities, with the purpose of providing evidence on the elements that best fit and should be included in a social technology, to be disseminated later on a national scale.

1,507 participants participated in 24 municipalities, with the purpose of providing evidence on the elements that best fit and should be included in a social technology, to be disseminated later on a national scale.

**Cycle 3 - Systematization of social technology:** at the end of the test rounds, the resulting social technology was systematized and available in formats that facilitate dissemination and adoption by governmental organizations or NGOs. All materials will be made available on a website that will, free and public, social technologies as well as the ways of using them.

**Cycle 4 - Pilot Project and Impact Evaluation:** In order to reapply and incorporate social technology into existing programs and policies, a pilot study was conducted involving 2,024 women in 9 municipalities and 1,545 retirees in 12 municipalities. The technology was applied by local agents, followed by treatment and control groups, who underwent the first evaluation that collected data on the level of knowledge of topics related to financial education and on specific financial behaviors - indebtedness. After 6 months, a new evaluation was conducted seeking differences between the Control and Treatment groups.

**Cycle 5 - Dissemination of the program:** where we intend to format Social Technology for grassroots organizations that serve the target audience and train trainers for dissemination in vulnerable territories, promoting the sustainability of the project.

### **4.3 Composition of the Social Technologies kits (ST)**

Through the data collected in the field survey, it was possible to construct a set of 20 STs with the participation of beneficiaries and 23 STs that had the participation of retirees in different regions of the country, seeking a better understanding of the reality of the family and the

environment to develop solutions that respond to the unique realities of the target population through methodologies that meet their needs and can be easily incorporated into daily life.

The set of 20 STs is composed of: 1) **instructor's guide** (guide with a general explanation of how the program works and how to apply the financial education workshops to the beneficiaries); 2) **guide to the piggy banks** (guide that explains about the workshop that deals with the piggy banks and the money trail and how to apply this workshop. 3) **money trail** (it explains in a playful way the trajectory of money and how to identify simple and real ways of creating reserves from the change, this material is given to the beneficiaries and to the instructors); 4) **special envelope type G - 24x34cm bag type** (used to place the piggy banks inside. This material is delivered to beneficiaries and instructors); 5) **family goals piggy bank** (large size bank that serves for the whole family to save money in order to achieve family goals. This material is delivered to the beneficiaries and to the instructors); 6) **family support piggy bank** (small size piggy bank that is used to store the money that can be used to complete the payment of the bills of the month. This material is delivered to the beneficiaries and to the instructors); 7) **emergency piggy bank** (medium size piggy bank that is used to store money that can be used in emergencies and can be opened in case of unforeseen circumstances. This material is delivered to the beneficiaries and to the instructors); 8) **agenda guide** (guide that explains how to apply the workshop that deals with the family agenda. This guide is only given to the instructors); 9) **calculator** (this material is only given to the instructors); 10) **pencil with rubber** (this material is delivered to beneficiaries and instructors); 11) **a wallet guide** (a guide that explains how to apply the workshop that deals with the family's wallet and about the poster of Mrs. Joana. This guide is only given to the instructors); 12) **poster Mrs. Joana (5 posters)** (posters that tell the story of Mrs. Joana and her money dealing with debts and types of loans, types of payments, credit card and income commitment. 13) **agenda 24x12,5cm** (used to fill in the monthly expenses, calculations of entry, exit and balance to visualize financial photography and setting goals for expenses reduction, income increase, control of money or creation of reserves. is delivered to beneficiaries and trainers); 14) **a wallet** (to keep the passbooks, this material is delivered to the beneficiaries and to the instructors); 15) **booklet "where my money comes from"** (for daily notes for amounts received. This material is delivered to beneficiaries and instructors); 16) **booklet "where my money goes"** (for daily notes for the amounts spent. This material is delivered to beneficiaries and instructors).

The set of 23 TS is composed of: 1) **instructor's guide** (a guide with a general explanation of how the program works and how to apply the financial education workshops to the participants. 2) **financial photography guide** (guide that explains how to apply financial photography and the fiches where my money comes / goes. This guide is only given to the instructors); 3) **tokens from where my money comes / goes** (tokens that help with the financial photography. This guide is only given to the instructors); 4) **calculator** (this material is only given to instructors); 5) **pencil with rubber** (this material is given to retirees and instructors); 6) **financial photography** (a tool developed so that retirees can map their sources of income and monthly expenses, and calculate their monthly balance. This material is given to retirees and instructors); 7) **debt guide** (guide that explains how to apply the workshop dealing with debts. This guide is only given to the instructors); 8) **posters (8 posters)** (proposes the memorization of an orientation, through the "Stop, Think and Decide" mental shortcut. This material is only given to the instructors); 9) **debt cardholder** (simple tool that can help the elderly to write down and visualize all the

financial commitments made. This material is given to the retired and the instructors); 10) **a table comparing debts** (a tool that assists seniors in comparing loan prices in different institutions. This material is given to retirees and trainers); 11) **magnet traffic light** (for retirees to put in the refrigerator, it's a reminder of what they learned "Stop, Think and Decide." This material is given to retirees and instructors) 12) **planning guide** (guide explaining how to apply the workshop which deals with the calendar of fixed accounts and debts of the month and the chart of the next steps. This guide is only given to the instructors); 13) **DVD** (deals with financial challenges through the story of an elderly couple. This material is only given to instructors); 14) **magnet calendar** (refrigerator calendar, this material is given to retirees and instructors); 15) **small magnets** (small magnets that represent the bills of the month, such as: rent, water bills, light etc. to place on the calendar. 16) **card my next steps** (tool to set up the plan to take small steps toward the life you would like to have in the years to come. This material is given to retirees and trainers).

## 5. Methodology used in the Adult Financial Education Program

### 5.1 Methodology used in the field

The hypothetical-deductive method was used, which, according to Marconi & Lakatos (2003, p. 99 apud Bunge, 1974: 70-2), is composed of the following steps:

#### a) **Placing the problem:**

**Recognition of facts** - examination, preliminary classification and selection of facts that are most likely relevant in some respect;

**Discovery of the problem** - finding a gap or incoherence in existing knowledge;

**Formulation of the problem** - placement of a question that has some probability of being correct; in other words, reduction of the problem to a meaningful nucleus, which is likely to be solved and to present itself fruitfully, with the aid of available knowledge.

#### b) **Construction of a theoretical model:**

**Selection of relevant factors** - the invention of plausible assumptions that relate to supposedly relevant variables;

**Invention of central hypotheses and auxiliary assumptions** - proposal of a set of assumptions that are related to supposed links between variables (for example, enunciation of laws that are expected to conform to observed facts or phenomena).

#### c) **Deduction of particular consequences:**

**Search of rational supports** - deduction of particular consequences that may have been verified in the same field or contiguous fields;

**Empirical support search** - for available or conceivable checks, elaboration of predictions or regressions, based on theoretical model and empirical data.

#### d) **Testing the hypotheses:**

**Proof outline** - planning the means to test predictions and backslides; determination of both observations, measurements, experiments and other instrumental operations;

**Execution of the test** - accomplishment of the planned operations and new data collection;

**Elaboration of the data** - procedures of classification, analysis, reduction and others, referring to the empirical data collected;

**Inference of the conclusion** - in the light of the theoretical model, interpretation of the data already elaborated.

e) **Addition or introduction of conclusions in theory:**

**Comparison of conclusions with predictions and regressions** - contrast of test results with deduced consequences of the theoretical model, specifying the degree to which it can now be considered confirmed or not (probable inference);

**Readjustment of the model** - if necessary, possible correction or readjustment of the model;

Suggestions for further work - if the model has not been confirmed, search for errors in theory or in empirical procedures; otherwise - confirmation - examination of possible extensions or unfolding, including in other areas of knowledge.

For the field research, the quantitative-descriptive type was used, which according to Marconi & Lakatos (2003, p.187 apud Tripodi et al, 1975, pp. 42-71),

consist of investigations of empirical research whose main purpose is the delineation or analysis of the characteristics of facts or phenomena, the evaluation of programs, or the isolation of key or key variables. Any of these studies may use formal methods, which approximate experimental designs, characterized by statistical precision and control, in order to provide data for the verification of hypotheses. They all deliver quantitative artifacts aimed at systematically collecting data on populations, programs, or samples of populations and programs. They use various techniques such as interviews, questionnaires, forms, etc. and employ sampling procedures.

In the first stage, a population description study was used, which, as presented by Marconi & Lakatos (2003, p.187 apud Tripodi et al, 1975, pp. 42-71),

are quantitative-descriptive studies that have, as a primordial function, the exact description of certain quantitative characteristics of populations as a whole, organizations or other specific collectivities. They usually contain a large number of variables and use sampling techniques to have a representative character. When researching qualitative aspects such as attitudes and opinions, they employ scales that allow quantification.

Given the complexity, it was decided to adopt a combination of the following areas of knowledge in the project:

**Service Design:** It is the interdisciplinary process of designing beyond your result, which combines different methods and tools from various disciplines. The result can have several forms, namely: abstract organizational structures, operational processes, service experiences and even concrete physical objects (STICKDORN & SCHNEIDER, 2011). Still in Stickdorn & Schneider's (2011) explanation, service design is a field focused on the well thought-out creation of experiences using a combination of tangible and intangible means, which generates several benefits to the final consumer when applied in sectors such as retail, banking, transportation and health.

**Behavioral sciences:** In Skinner's view, people tend to behave in ways that garner rewards and avoid punishment (MOREIRA, 1999). That is, human learning happens through stimuli and

responses or by significant methods that help in the construction of skills and knowledge, of the individual and of the community in general (ARAUJO, 2009). According to Skinner (1974), there are seven types of behavior, namely: usual behavior; probable behavior; perceptive behavior; past behavior; covert behavior; future behavior and multiple translations. Financial education works with behavioral science because it believes that changing habits assists in better decision-making.

**Public administration:** Gianetti (1993) considers that the principles of ethics, as a factor of social cohesion and the input of the economic process, are essential both for the consolidation of rules and for the proper functioning of the market. He still believes that there is a relationship between ethics, individual behavior and economic efficiency.

**Theory U:** According to Scharmer (2009) the objectives of the U-theory can be presented as five movements, namely: to coincide (connect with people and contexts related to what life calls you to do); co-presencing (going to a quiet place and connecting with oneself), co-planning (building plans to explore the future), and co-development (co-develop a larger ecosystem and maintain space which links people through the borders of seeing and acting from the whole.) Scharmer (2009) still presents three methods for achieving these goals: phenomenology (individual consciousness), dialogue (fields of conversation) and collaborative action research (ratification institutional models and structures) that address the same issue: the blended constitution of knowledge, reality and self.

## **5.2. Methodology used in Impact Evaluation**

The chosen methodology was the experimental evaluation of social impact, recognized as the best way to identify the true effect of a program and, therefore, the most recommended for programs in which the objective is to become public and large-scale policies so that there is a greater confidence that the volume of resources invested will lead to the desired social return.

According to the *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil* (Report of the Experimental Evaluation of Social Impact of the Program of Financial Education for Low Income Adults of AEF-Brazil) (2017, p.17),

the methodologies for evaluating the impact of social programs are based on theoretical foundations of clinical experiments comparing two groups: one that receives the intervention (or the treatment group) and one that does not receive it (control or decomparison group). In biological sciences, these groups are traditionally composed of formalized, that is, the participants participate in a lottery in which everyone has the same probability of receiving the intervention, regardless of their individual characteristics. Thus, with a minimum size of participants, the two groups should have the same initial average characteristics (or very close) and the simple differences between the groups observed at the end of the intervention can be attributed to treatment with grand-safety.

## **6. Results of the Impact Evaluation**

According to the *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil* (2017), the following is presented the impact of the Financial Education Program for Adults - Women beneficiaries of BFP and Retirees with income up to two minimum wages - to the beneficiaries who participated in the training workshops in financial education.

The impact of the program on the public of women beneficiaries of the BFP was significant. The proportion of beneficiaries who managed to fund an emergency in the 3 months of reference among those attending the workshops increased by 6.6%.

The impact on the workshop participants' knowledge indicator on planning has increased by 6% and on the perception of money use planning there has been a 10% growth.

The beneficiaries of the BFP were asked how they financed the last emergencies they had in the last 3 months (reference)

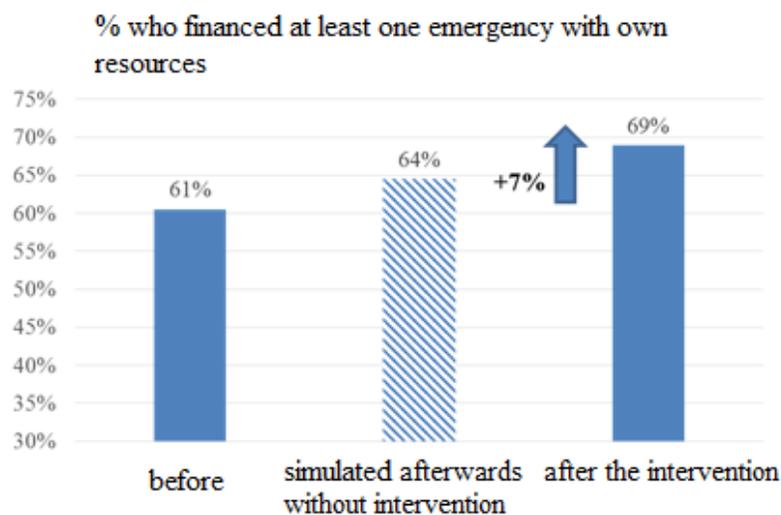


Figure 2. Percentage of women who can afford to finance at least one emergency

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil* (2017)

Through the financial education workshops given to the beneficiaries, it was possible to instruct them to save part of their income to use it only in case of emergency. After the three-month period of this instruction they were asked if they financed at least one emergency with their own resources. The result was, after the intervention, a 7% increase in women who were able to finance at least one emergency with their own resources.

The beneficiaries of the BFP were asked if they had **savings** or reserve money (Yes or No)

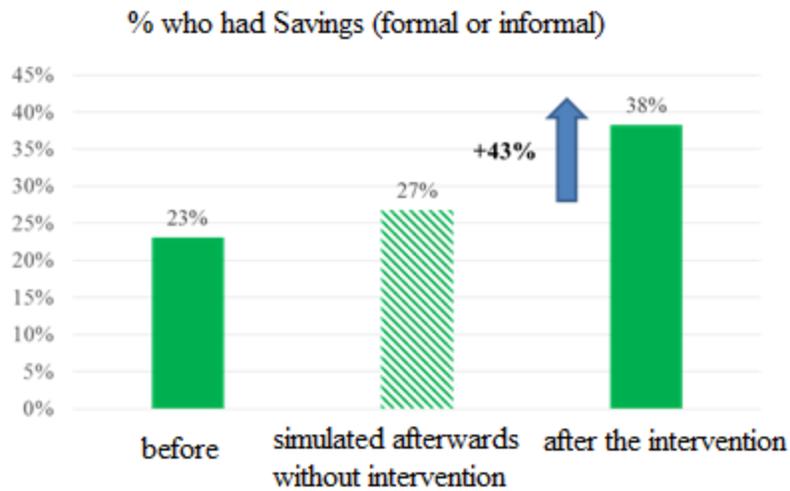


Figure 3. Increase in saving or cash reserve

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

It is possible to verify that, after the intervention, there was an increase of 43% of women beneficiaries of the Bolsa Família Program who started the habit of creating savings, be it formal or informal.

The beneficiaries of the BFP were asked if they **had been able to save** in the last 3 months (in Real)

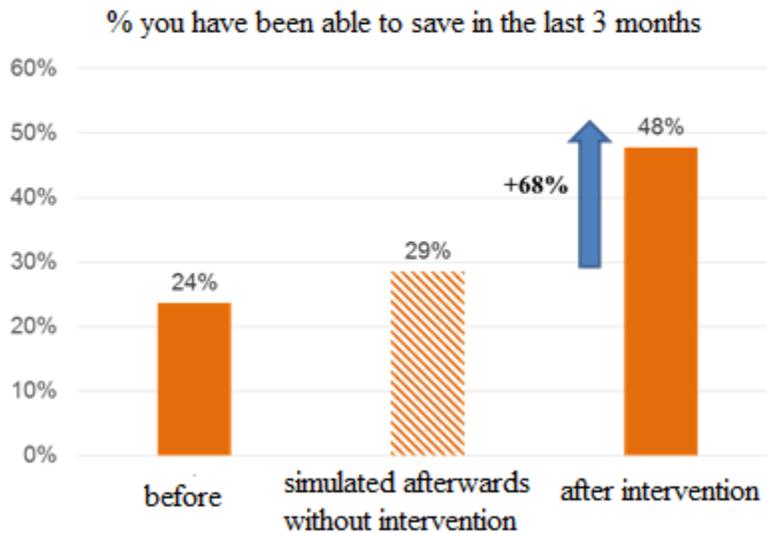


Figure 4. Increase in saving or cash reserve

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

It increased by 68% the number of beneficiaries, who participated in the financial education workshops, which in the last three months have been able to save.

The beneficiaries of the BFP were asked **how much they had been able to save in the last 3 months (in Real)**

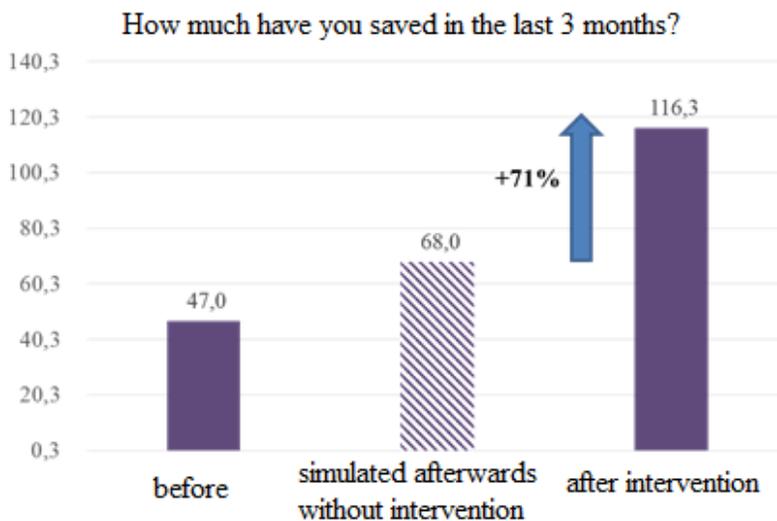


Figure 5. Increase in saving or cash reserve

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

With regard to monetary values, it is noticeable that beneficiaries who previously saved an average of R\$ 47.00, every three months, after the intervention managed to save on average R\$ 116.30. That is, women can now save 71% more quarterly than before.

The beneficiaries of the BFP were asked **how much they had to reserve money at home (piggy bank) (Yes or No)**

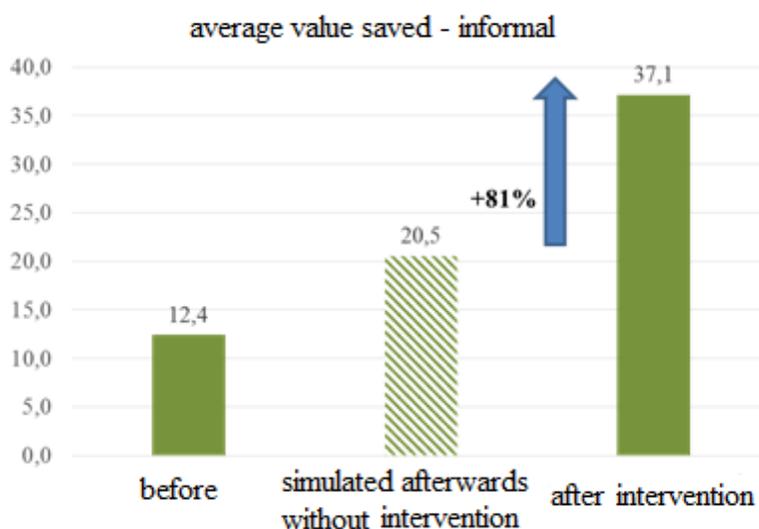


Figure 6. Increase in informal savings

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

After checking for shorter periods, the women before the intervention saved an average of R\$ 12.40 per month and after the intervention this figure increased 81%, that is, the economy rose to R\$ 37.10 per month.

The beneficiaries of the BFP were asked: 1) how much they know their income and; 2) how much you control your expenses - self-declaration (Index of 0 to 10 points)

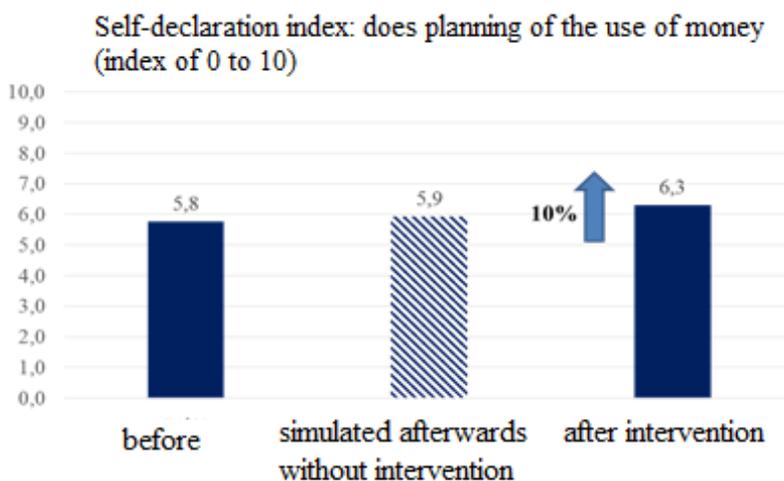


Figure 7. Improvement in budget planning

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

After the intervention, the self-reported knowledge that beneficiaries had about their revenues and control of their expenses increased by 10%.

Questions were asked to measure the knowledge about the content offered (Index of 0 to 4 points)

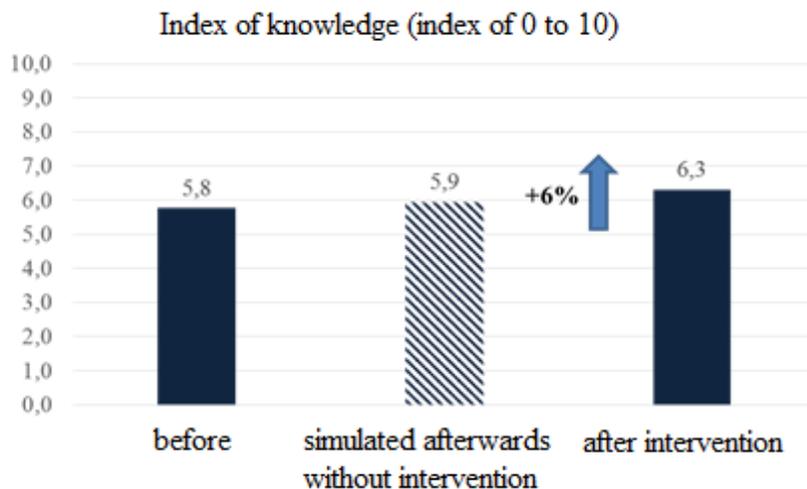


Figure 8. Gaining knowledge about financial planning

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

Based on questions asked to measure the knowledge about the content administered in the workshops (such as debt control and reserve creation), it was possible to verify that there was a 6% increase in relation to women with and without the intervention.

The impact of the program for the retired public with income of up to two minimum wages was significant, ie those who participated in the workshop showed better evolution of impact indicators than those who did not participate. The retirees who attended the workshops increased their spending with basic necessities by 35.6% and there was a 3.5% reduction in the rate of retirees who classified themselves as super indebted.

Was asked how they know if there was left or missing money each month

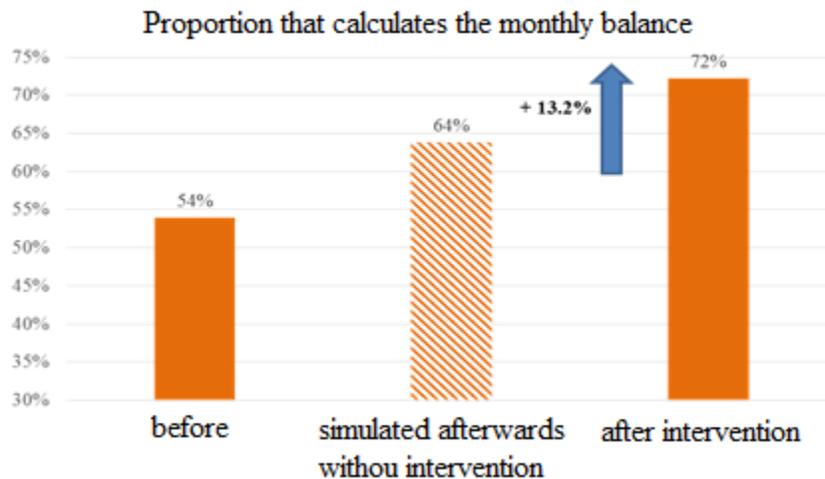


Figure 9. Percentage of retirees calculating their monthly balance

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

It is observed that after the intervention, there was a 13.2% increase in the number of retirees who began to calculate their monthly income to verify if the balance was positive or negative.

It was asked how much the family spent with each area and what family income and income and calculated the ratio spent on basic needs / total income (%)

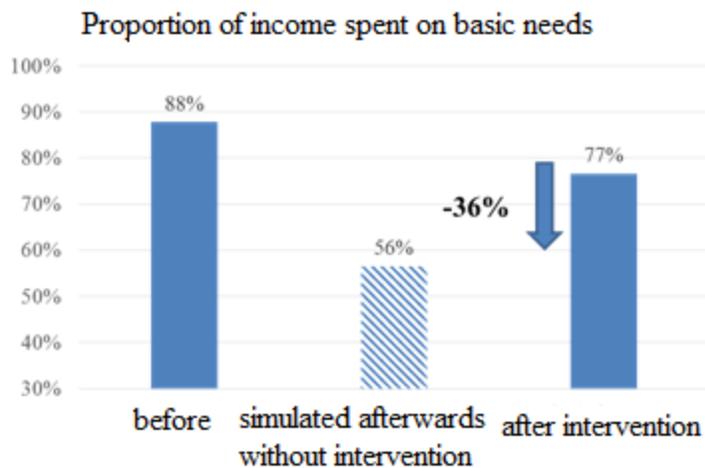


Figure 10. Raising the proportion of income spent on basic necessities (food, housing, health)  
 Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

There was a 36% decrease in spending on basic needs for retirees who attended financial education workshops.

Describing their situation, retirees classified their financial situation

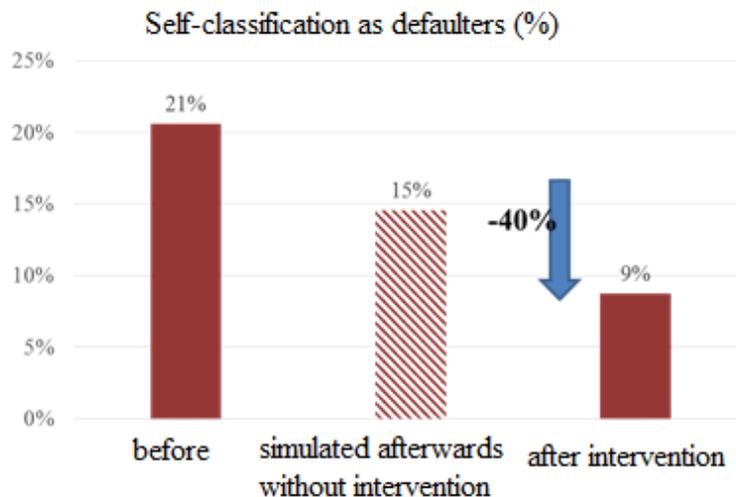


Figure 11. Percentage of retired self-declared defaulters

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

After the knowledge acquired with the financial education workshops, there was a decrease of 40% of retirees who declared themselves to be delinquent.

When classifying its financial situation, it was declared if it was managing to pay its debts -% that declared not having arrears

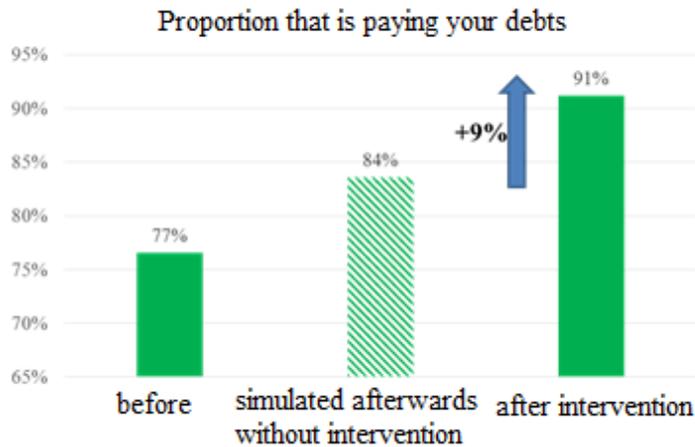


Figure 12. Impact on debt

Source: *Relatório da Avaliação Experimental de Impacto Social do Programa de Educação Financeira para Adultos de Baixa Renda da AEF-Brasil (2017)*

There was a 9% increase in retirees attending financial education workshops who said they were paying their bills on time.

The results of the qualitative analysis confirm that the program is very well suited to the target audience. The material is very well accepted by the participants and its format that includes the training of agents has also proved appropriate to this population that presents many difficulties, including reading and comprehension.

## 7. Conclusion

Based on the data demonstrated in this study, we consider that it is fundamental to create public policies aimed at women beneficiaries of the BFP and retirees with incomes of up to two minimum wages, but constructed jointly. That is, for them and with them. Social technologies need to be developed in a way that meets the needs faced daily, and for this reason, the final public needs to make and feel part of the process.

An important point for the construction and execution of the Program is the participation of governance, represented by CONEF, which support at all stages of development to achieve the final result.

The most important difficulty was found to locate women beneficiaries of the BFP and retirees with incomes of up to two minimum salaries, both for the territorial extension of the country and for the concentration in diverse places (such as churches, class associations, Reference Center of Social Assistance - CRAS, CCI - Center for the Coexistence of the Elderly, among others), different from students who can be identified in schools.

The subject of financial education is an issue that is not easily addressed, especially in adulthood. Generally, they have as premise to be an object of difficult understanding and with greater exigency and organization to reach the goals. However, the program developed breaks

paradigms and shows the possibility of understanding, in an easy and simple way, how to control income and expenses and, above all, achieve life goals.

The greater the involvement of families in financial goals, the easier it becomes to control resources and expenditures.

One of the main points for managing the family budget is to support women beneficiaries of the BFP and retirees with incomes of up to two minimum wages creating reserves. This would prevent them from relying on more expensive ways to get money.

Through the financial education workshops given to the beneficiaries, it was possible to instruct them to save part of the income to use it only in case of emergency. After the three-month period of this instruction they were asked if they financed at least one emergency with their own resources. The result was, after the intervention, a 7% increase in women who were able to finance at least one emergency with their own resources. Which means that there has been learning about making financial reserves that help pay for unexpected expenses.

It was possible to verify that, after the intervention, there was an increase of 43% of women beneficiaries of the Bolsa Família Program who started the habit of creating savings, be it formal or informal. Habit that will guide them to realize their short, medium and long term goals. It increased by 68% the number of beneficiaries who participated in the financial education workshops, which in the last three months have been able to save. Meaning that the content given to the beneficiaries caused a significant change in the thoughts and habits in which they were inserted.

Regarding to monetary values, it is noticeable that beneficiaries who previously saved an average of R\$ 47.00, after the intervention managed to save on average R\$ 116.30. That is, women can now save 71% more than before. Checking for shorter periods, the women, before the intervention, saved an average of R\$ 12.40 per month and, after the intervention, this figure increased 81%, that is, the economy rose to R\$ 37.10 per month. Again, these results reflect the impacts caused by acquiring knowledge about financial education and income management. After the intervention, the self-reported knowledge that beneficiaries had about their revenues and control of their expenses increased by 10%.

Based on questions asked to measure the knowledge about the content administered in the workshops (such as debt control and reserve creation), it was possible to verify that there was a 6% increase in relation to the women with and without the intervention.

It is observed that, after the intervention, there was a 13.2% increase in the number of retirees who began to calculate their monthly income to verify if the balance was positive or negative. Through the tools provided by financial education workshops, the retiree develops the skills necessary to understand how his financial life is and how to plan it to achieve the desired goals. There was a 36% decrease in spending on basic necessities for retirees who participated in financial education workshops. Through financial photography, retirees are able to visualize the monthly expenses they have and, in this way, it is possible to analyze ways to reduce costs.

After the knowledge acquired with the financial education workshops, there was a decrease of 40% of retirees who declared themselves to be delinquent. Basic topics of financial education are addressed in the workshops and, in this way, it is easier for the retiree to understand if they are in default.

There was a 9% increase in retirees attending financial education workshops who said they were paying their bills on time. Through the debit booklet provided to the retiree he can write

down all the debts he has and, in addition, with the calendar it is possible to make visible the due dates of the current accounts.

As a contribution to the next surveys, it is suggested that, after the understanding of controlling revenues and expenses and the creation of reserves, ways are presented of how to maximize the gains obtained, as well as the stimulus to the entrepreneurial behavior and the entrepreneurship so much for the women beneficiaries of the BFP and for retirees with income of up to two minimum wages.

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<sup>1</sup> Decree nº 7,397, of December 22, 2010 available at <[http://www.planalto.gov.br/ccivil\\_03/\\_ato2007-2010/2010/decreto/d7397.htm](http://www.planalto.gov.br/ccivil_03/_ato2007-2010/2010/decreto/d7397.htm)> Accessed on: 10/6/2017

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<sup>2</sup> Available at: <<http://www.br.undp.org/content/brazil/en/home/library/odm/declaracao-do-milenio.html>>. Accessed on: 09/25/2017

<sup>3</sup> Available at: <https://mdgs.un.org/unsd/mdg/Resources/Static/Products/Progress2015/English2015.pdf> Accessed on: 09/25/2017