

FOUR YEARS OF THE LISTA INITIATIVE

This document provides a case study of Fundación Capital's LISTA Initiative, and was written for practitioners and partners interested in understanding the history and development of LISTA, as well as key milestones and findings throughout the innovation process. The document is broken up into ten sections, starting with a quick introduction and background, and then presenting the origins of LISTA. The text then dives into the concepts behind LISTA, its implementation methodology and content breakdown. While a rigorous evaluation was being conducted at the time of writing, some initial results and impact are included in the document, as well as a discussion of scaling up and expansion processes. A critical examination of key lessons learned wraps up the analysis, and the text concludes with a section on next steps and the way forward.

INTRODUCTION

Since its founding in 2009, **Fundación Capital** has been working on co-designing scalable solutions for increasing economic citizenship worldwide, working hand in hand with governments, financial institutions and other partners. Its primary activities include **policy advocacy** to promote financial inclusion and facilitate asset-building for the poor, **design and innovation** to create methodologies and strategies that help achieve this at scale, and **knowledge and dissemination** to diagnose and evaluate, and of course facilitate knowledge sharing. Fundación Capital seeks change at scale, which is why it partners with key actors such as national governments, who can ensure that these ideas take flight.

At the 2014 MicroCredit Summit, Fundación Capital announced its ambitious commitment to reach 25 million people in 22 countries by 2020, across three regions (Latin America and the Caribbean, Africa and Asia).¹ As of 2015, it has reached 4 million people in 12 countries, but has begun its expansion into Africa, and is always seeking new partners to help achieve this goal.

On its journey toward promoting economic citizenship worldwide, Fundación Capital's team recognized the power of adopting a demand-based approach, but also the need for scalable tools and methodologies that could reach millions in a cost-effective manner. Given the high costs of labor and geographic dispersion, Fundación Capital realized that there was a need to adapt and integrate information and communication technologies into development, and so it began to experiment with digital solutions for stimulating demand and increasing financial capabilities at the base of the pyramid (BoP). This led to the development of the LISTA Initiative.



¹ For more information, visit <http://www.microcreditsummit.org/featured-commitments.html#FundaK2014>

BACKGROUND

The academic literature, and Fundación Capital's own experience with [Proyecto Capital](#), emphasizes the importance of financial literacy and capabilities at the BoP. Basic financial literacy helps economically vulnerable individuals make informed financial decisions, changes attitudes and perceptions towards the formal financial system, and helps smooth consumption through short and long-term financial planning. Beyond basic knowledge, financial capabilities influence behavior, and in the context of linking financial inclusion with social protection programs, it can help make that crucial transition from government-led access to the financial system, to actual use of financial products and services. For many years, the primary channel through which financial education and training were delivered was the in-person model. While there were a number of variations in terms of content, design and timing, the model remained relatively standard, with high variable costs and the inability to achieve economies of scale. Given the challenge of stimulating demand and increasing the capabilities of millions of low-income individuals, coupled with the costs incurred by both providers and recipients of that training, Fundación Capital started examining and experimenting with alternative delivery channels. Experience had shown that while the traditional model had low fixed costs, it came with high variable costs, and what was needed at scale was the reverse. Technology therefore provided that opportunity for achieving ***economies of scale*** through a higher initial investment cost, but lower variable costs.

Some of the initial ICT designs included text (SMS) and voice-based messages that provided general information, financial tips, and rules of thumb, in addition to mobile top-ups as incentives for training, both of which were automatized and maintained low operating costs. While these approaches took advantage of the nearly ubiquitous presence of feature phones in developing countries, barriers like illiteracy and high costs of two-way messaging limited the ability to provide in-depth and personalized training. Fundación Capital therefore took a gamble and, inspired by Sugata Mitra's Hole in the Wall experiment in India,² decided to create a self-sustaining virtual financial education course that could be used in even the most remote rural areas. The tablet-based app was designed to simulate the in-person training experience through a self-teaching application that provided information and training, with the objective of increasing financial capabilities at the base of the pyramid. This app was called LISTA, and its goal was simple: to facilitate financial inclusion at scale, by offering a cost-effective alternative to in-person financial education, with the ability to reach millions.



² For more information, visit: <http://www.hole-in-the-wall.com/>

³ LISTA is a Spanish-language acronym for "achieving inclusion with technology and savings," but also means "ready" or "smart" in Spanish, which provides positive associations with the name.

THE ORIGINS OF LISTA

Fundación Capital faced a number of challenges when first developing LISTA. For example, there was no conceptual reference for LISTA; while apps had been created for trained field workers and children in schools, this was the first time that an app was designed for adults with low literacy and formal education, living in rural areas of Latin America. In addition, traditional institutional channels like schools did not exist for adult training programs. Addressing somewhat dry concepts around financial education and making them relevant and motivating for participants was another challenge. Experience shows that financial education programs often face high attrition rates, so in addition to challenges around design, methodology and pedagogy, there was also an important question of whether additional incentives would be required for users to complete the LISTA training, or whether they would be sufficiently self-motivated by the content and design. Finally, there was general and significant skepticism over the issue of security; bringing expensive tablets into poor and often insecure areas of Colombia was considered risky, as the assumption was that the tablets would likely be stolen and then resold.

Recognizing these risks as learning opportunities, Fundación Capital partnered with the Colombian government's Ministry of Social Prosperity (*Departamento para la Prosperidad Social*) and their *Más Familias en Acción* conditional cash transfer (CCT) program,⁴ as well as a number of other government partners (such as *Banca de las Oportunidades* and *Red Unidos*), local governments, financial institutions, and international donors. The LISTA app was launched in late 2012, in ten municipalities located in three regions of Colombia, testing a variety of implementation methodologies, distribution strategies, and motivational and monetary incentives.

After ten weeks of implementation, the results showed that this model was, indeed, viable. First, the results showed that there was a demand for this kind of training (with 1,270 registered users, which was more than double the initial target). Second, that it was useful (with 74% of registered users completing all modules), and finally that it was user-friendly (with participants quickly learning how to operate and use a tablet on their own).

Another finding was that monetary incentives (mobile top-ups sent automatically to participants once they completed a module), while appreciated by users, did not lead to increased performance. The motivational incentives (receiving a virtual star for every new module completed) were found to be sufficient, though accessing information on a tablet computer was also determined to be a strong motivational factor. With regard to security, none of the tablets were stolen or damaged during the implementation, even in cases where the tablets were rotating within the community.

Of course, the initial implementation was not without its challenges. The timeline for developing and testing LISTA was limited to one year because of funding requirements, which meant that the software was launched quickly and without taking the necessary time to perform quality assurance

⁴ CCT programs aim to stop the inter-generational transmission of poverty by making welfare programs conditional upon investments such as those in the health and education of children. The transfers are typically given to female heads of household, and have been found to have a positive impact on short and long-term poverty outcomes. Originating in Brazil and Mexico in the mid 1990s, CCT programs are now present in 52 countries worldwide, with unconditional transfer programs in 119 countries (World Bank, 2014 State of Social Safety Nets Report).

⁵ The first phase of LISTA was evaluated externally through process and results analyses, which included focus groups and in-person interviews of key actors (participants, community leaders, field facilitators, local and national government representatives, software providers, content designers, and project managers). Additional research was done in-house through qualitative studies throughout the design and implementation phases, as well as with statistical analyses of the data collected from the tablets.

tests. This meant that there were a lot of bugs in the software, and the app would often freeze up for users, particularly if it was synchronizing data. With the goal of accessing real-time data, the tablets were deployed with data-based SIM cards, and the app was programmed to automatically send captured data to a cloud server when it detected a signal. However, given the low penetration of cell phone service in rural areas, the synchronization process would take such a long time, during which users were unable to access the training, so the tablets were taken offline within the first few weeks as it was simply not feasible to synchronize them in the field.

In addition, some of the distribution methodologies (like leaving the tablets in a fixed, centralized location, rather than having them rotate in the community) were found to be inefficient, given that the target population was unable to access them (they were rarely in the city center or felt uncomfortable using this technology in a public place, for fear of others seeing them make a mistake). This was, in fact, one of the most

“ Recognizing risks as learning opportunities ”

interesting findings of this first phase: that the rotation methodology (described in the “implementation methodology” section) was the most successful, especially because participants were able to use the app in the privacy of their own homes. This allowed them to learn at a time that was most convenient for them, concentrating on topics that were most relevant to their own needs (*de facto* personalization), and allowing them to study at their own pace. Furthermore, the tablet generated a lot of interest from their children,

spouses, and neighbors, so that the reach of the training was much broader than the initial target audience.

The findings from this first implementation demonstrated the viability of the approach, but there were a number of changes that needed to be made based on that research. The first was a shift in operating systems: LISTA had initially been developed for iOS, given the high performance of Apple’s tablets and the desire to limit risks related to hardware malfunctions. However, to provide access at scale, the LISTA app needed to be redesigned for Android systems. The second shift was an integration of additional audio and video components: while it was not so clear during initial field visits, literacy levels were found to be much lower than expected, so even with a restricted amount of written text, some users still struggled to read, so audio accompaniment and visual cues were incorporated throughout the training process. Finally, the training modules were restructured so that they could combine both work and play, with interactive exercises and games built into the platform, as well as additional modules designed to provide information about the cash transfer program. This last module was added in order to clarify the co-responsibilities of the program and stimulate the use of financial products by diffusing myths such as “if you save in the government-facilitated bank account, you will get kicked out of the cash transfer program.”

THE LISTA CONCEPTS

LISTA is based on three primary pillars: (1) a pedagogical pillar, (2) a methodological pillar, and (3) a thematic pillar, as described below:

Pedagogical pillar: This is the pillar upon which all educational methodologies are built. For LISTA, Fundación Capital used Harvard ProjectZero's Teaching for Understanding guide, which is founded on a constructivist pedagogical base.⁶ The Teaching for Understanding framework requires students to think, analyze, problem solve, and make meaning of what they've learned. By moving away from the classic teacher-led training, and incorporating local examples, personal stories, and experimentation, this methodology builds on existing knowledge and experience to facilitate content adoption. Building on existing knowledge empowers people to realize that they have already incorporated positive financial behaviors into their daily lives, which brings financial literacy and skills closer to their own reality, as opposed to being something limited for the educated and wealthy classes.

Methodological pillar: The methodological pillar is based on a series of principles for design and co-creation with end-users. This incorporates simple principles such as "less is more," "nobody is completely ignorant of a topic," "playing improves learning, because it creates an emotional and experiential association, rather than being an exercise in memorizing content," "it is crucial to apply what you learn," "you fortify knowledge by repeating it and sharing it with others," among many others. Therefore, the methodologies are both diverse and complementary in that they build from common knowledge, community, and pragmatism. By making the experience akin to daily practices and communication, users become more engaged and committed.

Thematic pillar: Based on constructivism and the practical application of knowledge, the financial education content presented in LISTA depends on the specific needs of financial inclusion programs in each country. This requires a joint effort by all actors to ensure unified messaging, and clarity in goals. For example, if LISTA is adapted for cash transfer recipients and linked to the government's program (usually involving access to government-facilitated financial products and services), then it is important for the participants to understand those specific products and their program co-responsibilities (usually health and education for their children). By aligning messages and linking the training to specific products, LISTA urges users to make prudent use of their scarce resources, taking advantage of available financial products and services, and gradually growing their assets so they can make their own way out of poverty. In addition, some of the distribution methodologies (like leaving the tablets in a fixed, centralized location, rather than having them rotate in the

THE IMPLEMENTATION METHODOLOGY

As was briefly mentioned, the implementation methodology required experimentation. The original proposal for the distribution of the LISTA app considered a fixed location approach. Like the Hole in the Wall project, the app was initially going to be integrated into touch screen computers in centralized locations throughout the implementation municipalities. These locations could include such places as city hall, community centers, libraries, small shops, banking agents and bank branches, where participants would be able to access the screens and learn from the content without the need for a facilitator directing them in how to operate the technology.

⁶ For more information, visit: <http://www.pz.harvard.edu/projects/teaching-for-understanding>

While this methodology worked for Sugata Mitra in India, field research revealed that it would be very challenging for LISTA to adopt this model, especially in the early ‘proof of concept’ stage. The first reason is that Colombia has a much lower population density than India, so the tablets would be used less frequently, and with a concentration of poverty in rural areas, the tablets would likely be used only on market days. Secondly, the Indian model was built around the natural curiosity and fearlessness of children, whereas LISTA’s target group was adult women, many of whom are shy about technology and even more so about their low level of education. The fear of “making a mistake in public” or “breaking the technology” was such that the tablets created an initial resistance that was coupled with fear and shame. Finally, the appeal of the personal computer was such that participants preferred one-on-one time with the device, rather than a group learning experience.

For that reason, Fundación Capital initially experimented with the implementation methodology, testing a variety of approaches in the pilot phase, including:

- (1) fixed location tablets in the city hall, but within the cash transfer office;
- (2) fixed location tablets in the public bank, where participants received their cash transfers in simplified savings accounts;
- (3) rotation of the tablets within the community by government field workers, contracted by the anti-poverty program called Red Unidos;
- (4) rotation of the tablets within the community by trained leaders, who received a monetary stipend for their work;
- (5) rotation of the tablets within the community by leaders who did not receive remuneration, but had previously undergone leadership and financial education training (through the *Mujeres Ahorradoras en Acción* program);
- and (6) rotation of the tablets within the community by elected community leaders with no prior training (the *madres líderes* of the CCT program).

The “rotation” methodology was designed so that multiple people could access a tablet in any given time period. For example, if a municipality has a target of training 600 users over a five month time period, and the rotation cycle is set as monthly, then 120 users must be trained every month to reach the goal. *Estimating* that one tablet can be used to train three households per week, this goal could be achieved with the purchase of ten tablets, which would each be used to train twelve people in a month.⁷ Community leaders (or other personnel) facilitate access to the tablets each month (or for a longer period), and then the ten tablets are rotated to a different geographic location with new leaders, facilitating training in different neighborhoods or parts of a municipality. This implementation methodology is in a state of constant flux, as it depends on a structure of volunteer leaders, in some cases with high rates of geographic dispersion, and with factors like participant age and literacy levels sometimes resulting in additional time and attention needed from the community leader.

The rotation implementation model was found to be very successful given the context of participants not having access to their own devices. In this sense, the methodology facilitates access to shared devices, decreasing fixed cost investments in hardware. This model was also designed in a way that fit the local context, with community leaders facilitating access to the tablets, building on the trust already established by local leaders and facilitators, as well as the institutional support provided by public and private partners. The rotation methodology has further evolved as a result of LISTA’s geographical expansion, given that elected community leaders are not easily found in countries like Brazil or Honduras, which has led to a number of adaptations to fit those specific contexts. This includes the use of community bank leaders, centers for social assistance, youth associations, savings groups, and trained field workers who facilitate the rotation in the municipalities.

⁷ This average will depend greatly based on the geography and population density of the country or region, as well as partner specifications.

THE CONTENT OF LISTA

Following the initial testing phase, LISTA underwent a significant process of re-design, so that the second version of the application (LISTA 2.0) included some structural changes, but much of the core remained the same. The LISTA application provides practical information about savings, responsible debt, managing risks, and taking care of one's self, family and community. In addition, it provides practical recommendations for managing household finances, and provides the opportunity to learn about financial products and services. It includes simulators that allow participants to practice using automatic teller machines (ATMs) and mobile money products. In addition, if the target audience involves cash transfer recipients, it provides information about those programs, with recommendations for how to best use the funds and the financial products through which those transfers are facilitated.

The visual design and user experience were developed with a user-centric approach, keeping in mind the low levels of literacy among users and very little familiarity with digital tools. The modules are highly interactive and include audiovisual and touch animation, which stimulates users to learn and share the information with their communities. It is especially designed for adults and people with low levels of formal education, given that it includes very little text and a lot of audio accompaniment. The app works offline, and can therefore be used in rural areas, though registration and user data is stored on the tablets and later uploaded to a server for monitoring, evaluation and analysis.

What follows is a step-by-step description of the training process, as well as the contents provided in each module.

1. Introduction and Registration

For most participants, this will be the first time that they have ever used a tablet computer. The training process therefore begins with an elective video that explains both the objectives of the program, and also how to use the tablet and interact with the app. The video engages users and asks them to perform specific actions (swipe, drag, type, etc.) in order to familiarize them with the technology. They can go through the video as many times as necessary in order to become comfortable with both the hardware and software.



The next step is the registration process, which involves typing in some basic user information (name, surname, identity number, date of birth, cell phone and municipality). After this, they take a profile photo and complete a baseline questionnaire that provides information about their knowledge prior to the training process, their attitudes towards savings, banks, and credit, and their ability to use financial products and services. This questionnaire was one of the parts of the application that was changed the most dramatically during the re-design of the application. Originally presented in a text-heavy format, and even incorporating the Progress Out of Poverty Index⁸ to determine whether LISTA was actually reaching the poor, the new version of the survey is graphic and accompanied by audio, increasing the probability of receiving accurate responses to the self-administered surveys, and is much shorter in order to improve the user experience.

⁸ The Grameen Foundation's Progress Out of Poverty Index is a country-specific survey-based simplified poverty measurement tool. For more information, visit: <http://progressoutofpoverty.org/>

The following image provides an illustration of this modified survey, which asks how frequently the user saves, with the response options being: daily, weekly, biweekly, monthly, from time to time, and I don't save. Users simply select one of the images and click "continue" in the blue arrow in the bottom right corner. They can also click on the image of the ear in the bottom left corner to hear the audio repeated again, or receive help by clicking the orange button in the top right corner.



Finally, users set a savings goal, which is integrated into the app as a directional tool, so they are continuously working towards achieving it. The savings goals are pre-defined, and selected based on studies of the most common goals of those living in poverty, such as: purchasing or improving a home, educating their children, investing in the health of their family, investing in a business, or saving for the advanced years.

Each completed module contributes toward this final goal, as they accumulate points and work towards achieving it. These points are accumulated into a fictitious bank within the app, to incentivize savings in real banks.

Once the registration process has been completed, registered users can re-enter the app whenever they like, using their identification number as a simple username login.

2. The Training Modules

“ABC del Ahorro” (The ABCs of Savings): The ABCs of Savings is made up of “A de Ahorro” (savings), “B de Buenos Consejos” (recommendations), and “C de Cuido lo que Tengo” (taking care of what I have). Using rules of thumb, interactive games and short comprehension and application exercises, this module provides information about savings, establishing goals, risks and insurance, and recommendations to save in one’s daily life and as part of a community.

“Manejo Bien Mi Plata” (I Manage My Money Well): This module shows users how to manage their resources, using basic concepts like identifying a family’s income and expenses, to help determine how much should be saved and to be aware of one’s capacity for credit. It also shows users how to project their future spending and plan their personal and family finances, through simple and interactive calculators.



“Mi Banco” (My Bank): This module shows users how to use a bank account. They learn about their consumer rights and responsibilities, and the kinds of services they can access through a financial product. It also provides recommendations on how to manage their account in a safe way, especially when using ATMs, such as covering the number pad when typing in their pin code.

Cash Transfer Program: Given that LISTA is most commonly used within government social protection programs, such as conditional cash transfers, an additional module was added to clarify any myths about the program and to encourage the use of bank accounts or other financial products and services offered to participants through the government’s efforts. This additional module can be removed or replaced by other local programs or products, depending on Fundación Capital’s partnerships.



“Quiero Practicar” (I Want to Practice): This section allows users to apply what they’ve learned in the other modules, using financial transaction simulators. It helps users understand how a real ATM works, so that they can overcome their fear of this technology through practice. Given that this is often the only channel available for accessing cash transfers in rural areas, it is vital that users learn how to manage ATMs on their own. Some banks only permit a limited number of free transactions, so by learning how to properly use the ATM they can avoid transaction fees from input errors.

Users can practice withdrawing money and viewing their balance. There are also mobile wallet simulators, which demonstrate how to withdraw money and make financial transactions using a basic cell phone. By breaking down technology barriers, the app also aims to increase the use of the full range of transactions offered with a mobile wallet.



This section also includes two games: **“Carrera Salvaje” (Wild Race)** which simulates a race between animals, where the winner is the person who gives the most correct responses to questions about topics presented in the app. **“Atrapa Monedas” (Catch the Coins)** which has users moving the tablet around to capture falling coins to use for savings and avoid traps like debt, which can be problematic if they accumulate, causing the user to lose the game.



3. User Profile and Accumulating Points

Each participant’s progress is tracked and recorded within the app, and for each major module completed, users are rewarded with a virtual star. This acts as a motivational element, recognizing their success and the completion of a milestone within the application. The stars are also accompanied with points, represented as virtual coins, which they can use to contribute to their overall savings goal.

The coins are automatically deposited into the app's virtual bank, and this helps create an experiential learning process through which they work towards achieving a longer-term objective. Additionally, users can gain points by playing the two games integrated into the app, and they can grow their savings through learning and playing.

In order to see how far they've gone and what sub-modules they might have skipped, users can refer to their individual profiles, which shows them how many points they've earned and how far along they are in the training process. This information is presented in the fictional "school" section, which shows their progress in the modules, and the "bank" section shows how many coins they've accumulated. This link between the virtual and the real world therefore helps move education from theory to practice, and also potentiates leadership and agency, influencing users to become more active participants in their communities and increase their role as decision-makers.

4. Monitoring and Evaluation

Given the partnership with public and private institutions and the aim of bringing LISTA to scale, it was important to incorporate a system of monitoring and evaluation into the program from the very beginning. The data that's captured in the tablets includes personal information, demographic indicators, and a survey of knowledge, skills and attitudes. The personal information can then be cross-referenced with administrative data from financial institutions and government databases to provide richer background and behavior information about participants, and later demonstrate, in aggregate, tendencies toward product use and accuracy in targeting.

For example, users are asked in the survey whether they are part of the conditional cash transfer program, and this information can be crosschecked with government databases. They are also asked the frequency of their savings habits and the use of their government-supplied bank account, and this can also be verified through administrative

data. Additional information about transactions and geographic indicators (proximity to banks, availability of deposit-taking locations, etc.) provides a much richer understanding of the drivers behind financial inclusion, capabilities and behavior. Not only does this information facilitate an evaluation of the results and potential impact of the program, but it also helps generate an image of the cash transfer recipients as clients, rather than beneficiaries.

Once participants have completed all the training modules, an end-line survey appears in the application. The questions are similar to the baseline survey, so the responses can be contrasted with their initial responses, providing feedback about changes in knowledge, skills and attitudes, as well as an indications of a willingness to change financial behavior.

Another interesting aspect of integrating data collection into the training process is that the tablets can store telemetry data, essentially showing how long each user spent on each module. This can provide an indication of interest in a particular topic, but also issues that are most relevant to the training needs of the target population. This data also indicates that some of the most popular topics are related to savings, whereas users spent the most amount of time in interactive modules, like the ATM Simulator.

5. Feedback and Improvements

The LISTA application, in its various iterations and geographic adaptations has reached more than 100,000 users, after four years of design and development, and with tests and implementations in three countries. With each field experience, a significant amount of feedback is received both through data collection (quantitative analysis) and frequent qualitative inputs taken from in situ observation, focus groups, and interviews of users and facilitators. All of this feedback is used to improve the design and content of the app, in a cycle of continuous learning to improve the user experience.

RESULTS AND IMPACT

In chronological terms, the LISTA Initiative can be grouped loosely into three phases over the period of four years. The first was the “**pilot phase**,” launched in September 2011, and completed in December 2012, during which the LISTA 1.0 app was designed and tested through a series of implementation methodologies and designs, to verify basic hypotheses, which have been outlined previously. This implementation was accompanied by a series of in-house qualitative studies, whose aim was to help the team understand what was happening in the field through frequent visits, adjustments to the model, and data analysis.

The pilot phase was accompanied by an external results and processes evaluation, as well as some statistical findings based on the self-reported data (baseline and end-line surveys). The external evaluation revealed the following key findings:

- (1) the role of community leaders as tablet facilitators is crucial, in that they are recognized as trustworthy by their community, are leaders with empathy and credibility, and they create a sense of confidence;
- (2) the articulation of LISTA with numerous stakeholders at both the national and local level is fundamental to the process, as it facilitates access and operations;
- (3) the content was appropriate and well-received by the population, which was the result of using simplified language, and concepts relevant to the lives of participants;
- (4) LISTA succeeded in addressing issues of savings, money management, and the financial system, which was perceived as useful in improving the lives of participants;
- (5) the evaluation revealed that there were cases where participants began to adopt behavioral changes, including a shift in attitude towards savings, and the implementation of financial habit recommendations provided in the app;
- (6) the ATM simulator caused the greatest impact among users, especially given the interactive nature of the tool and its relevance for their lives;

(7) LISTA is referred to as “holding the professor in your hands”;

and (8) challenges included a short implementation time and software bugs, which caused the program to crash, particularly during synchronization.

The results of the analysis of the surveys integrated into the app revealed the following:

- (1) changes in knowledge, with the percentage of those understanding the meaning of formal savings growing from 57% to 71%;
- (2) changes in attitudes, with an increase in people stating that “savings is easy” increasing from 72% to 85%;
- and (3) changes in abilities, with an increase in people reporting the ability to teach someone how to use an ATM increasing from 64% to 84%.

It is important to emphasize that this was self-reported data and the findings were not verified by trained enumerators, so they cannot be considered statistically significant indicators, but they do provide a general sense of what may or may not be working. In 2016, there will be an effort to determine the validity of self-reported data in order to decide whether it should remain a part of the application, or whether the information is not sufficiently accurate to contribute to any analyses of outcomes or impact.

The **second phase** occurred over a two-year period, between 2013 and 2014, during which the LISTA 2.0 app was developed and launched, with implementations in Colombia, tests in the Dominican Republic, and adaptations made for Brazil. It was during this time that a number of qualitative studies were conducted, to test perceptions and assumptions, to understand in greater detail how the rotation model was working in the field, and to determine whether the content was sufficient and being accepted within the community. Additional tests were performed to understand what the optimum timeline was for using LISTA, as well as the role that trust played in distributing the content, but also trusting the messaging, particularly as it related to the CCT program and the financial products and services.

As part of this work, a series of field implementations were organized during this time period. One of those, which occurred over a three-month period in mid-2014 in six municipalities within two regions of Colombia, reaching close to a thousand users, revealed additional information.¹⁰

- (1) 89.5% of those who reported unstable savings habits stated that they would save in a more disciplined manner following LISTA;
- (2) LISTA facilitated the creation of savings goals, including a diversification of those goals;
- (3) following the LISTA training, 76.9% of those who indicated that they do not save in a bank, stated that they would use it to save in the future;
- (4) of those who initially said they did not save, 82.7% indicated that they would start saving, and that they would do so in a bank;
- (5) there was an increased perception of banks as a “safe place to save,” with 74.7% of those who initially opted for non-banking options shifting to select the bank instead;
- (6) while only 6% of the users indicated that they did not know it was possible to save in the bank account provided by the government CCT program, 100% confirmed this knowledge in the end-line surveys;
- (7) however, there were no dramatic changes in perception of the quality of service offered by the bank;
- (8) loans were still seen as a viable solution when facing an emergency, though LISTA attempted to shift away from them and towards savings;
- (9) 76.7% of those who recorded handling emergencies with loans or selling off assets indicated that they might use their savings or an insurance product to manage their risks in the future;
- and (10) 43% of those who initially indicated that they didn’t know how to use an ATM indicated that they could now effectively manage using it.

During this phase, Fundación Capital began to prepare the field for a geographic expansion of LISTA, first by making the necessary investments in knowledge and understanding, and then by adjusting the technology through a re-design of the app. Additionally, LISTA was selected as part of the Citi-IPA Financial Inclusion Initiative,¹¹ through which a randomized control trial experiment was designed to evaluate the impact of this methodology and the training program. It took almost a year to perfect the research design, as it had to coincide with the government of Colombia’s strategy for scaling up LISTA while maintaining control over the implementation (avoiding spillover effects and ensuring sufficient power calculations). At the end of 2015, the mid-line survey was completed, and the results of this study will be available in 2016.

The **third phase** is one of scaling up, in which Colombia’s Department for Social Prosperity decided to expand LISTA to 100,000 CCT program recipients, recognizing the potential to reach a significant number of people with a scalable technology. This is, of course, only one of many of the government’s interventions to increase financial inclusion in the country and to strengthen the benefits of the cash transfer program. There are no results available to share at the time of writing, but the integration of a rigorous evaluation into the development process will surely bring in a number of interesting findings and conclusions to add value to the research that has already been completed.

It should be noted that the distribution of training content via touch screen devices to the base of the pyramid has incredible potential, and Fundación Capital recognizes this as an enormous opportunity for providing additional training in different areas, ranging from agricultural development to maternal health care training. One of the interesting findings that came from these implementation experiments was the power of bringing a tablet computer into the home.

¹⁰ It is important to emphasize the same caveat as before: this is self-reported data, which was not subsequently verified by trained enumerators, and does not indicate statistical significance. This information was based on an internal analysis of the tablet-based surveys.

¹¹ For more information, visit: <http://www.poverty-action.org/study/tablet-based-financial-education>

SCALING UP AND EXPANSION

Not only does training address issues of gender inequality, but the tablets added an element of empowerment that came from the sense of trust, in a context where high technology is seen as inaccessible for the poor, but there was also the unexpected benefits that came from the devices themselves. They allowed for participants to receive a personalized training experience, through one-on-one sessions with a virtual professor – something that had not been previously accessible. In addition, the tablets allow users to learn in a non-traditional way, by applying the information through exercises and interaction, with training that incorporates audio, visual and tactile elements, as well as linking the content to existing products and services. The offline aspect of the app means that it can be used in even the most remote areas, which are often the most excluded.

By bringing financial education training into the home, the often-private issue of personal finance was now being discussed between spouses, and even children were learning about the importance of savings and how they could help their family. The integration of testimonial videos from successful women savers was also an enormous motivator for users who saw “people like me” succeed doing something they thought was difficult and often impossible. In fact, there is great potential in storytelling, and in the next few years we expect to see the integration of LISTA and future apps with social media, where users will be able to share their own experiences and knowledge with each other, in a way that will help them connect and really become inspired to make life changes.

Following the initial implementation of LISTA in Colombia, Fundación Capital began to share its experience and the results of that implementation with partners from around the region. While LISTA hadn't been tested in other contexts, the geographic and demographic heterogeneity of that initial implementation led the team to assume that the tool could also be successful in other contexts. The first country that expressed interest in using LISTA was the Dominican Republic and the *Banco Adopem* financial institution in 2013. LISTA was therefore tested in that country the following year, through a small implementation that was built around savings groups. The other country that was especially interested in LISTA was Brazil, so Fundación Capital partnered with the Central Bank of Brazil in 2014, and adapted the application to the local context and language, and designed an implementation strategy to test and potentially expand the application's use throughout the country. In this case, the target users were low-income people in the *Cadastro Único*, a centralized registry based on poverty and other socioeconomic indicators, many of whom were participants in the *Bolsa Familia* CCT program. In 2015, two additional countries signed on to adapt LISTA to their local contexts and begin implementation: Mexico and Honduras.

It is important to state that LISTA was developed out of the rich experience of Proyecto Capital, a Ford Foundation-funded initiative for promoting financial inclusion through savings-linked



conditional cash transfer programs. This project brought in a wealth of experience throughout the region, but more importantly, was the vehicle through which Fundación Capital solidified its relationships with government partners, making them more likely to agree to participate in innovative programs that pushed the envelope in terms of innovation and risk. In 2011, the Citi Foundation agreed to fund a small innovation pilot that was heavily influenced by the work of behavioral economists, as well as the growing presence of technology in development and the decreasing costs of such investments. The Citi Foundation went on to support Fundación Capital as it improved the LISTA product, expanded its work in Central America, and later adapted the app to the Brazilian context. Other donors also contributed to these developments, including the UN's International Fund for Agricultural Development, the Skoll Foundation, and the Ford Foundation. The expansion into Mexico and Honduras is financed by other partners, such as the Organization of American States and the Inter-American Development Bank, as well as through partnerships with local organizations.

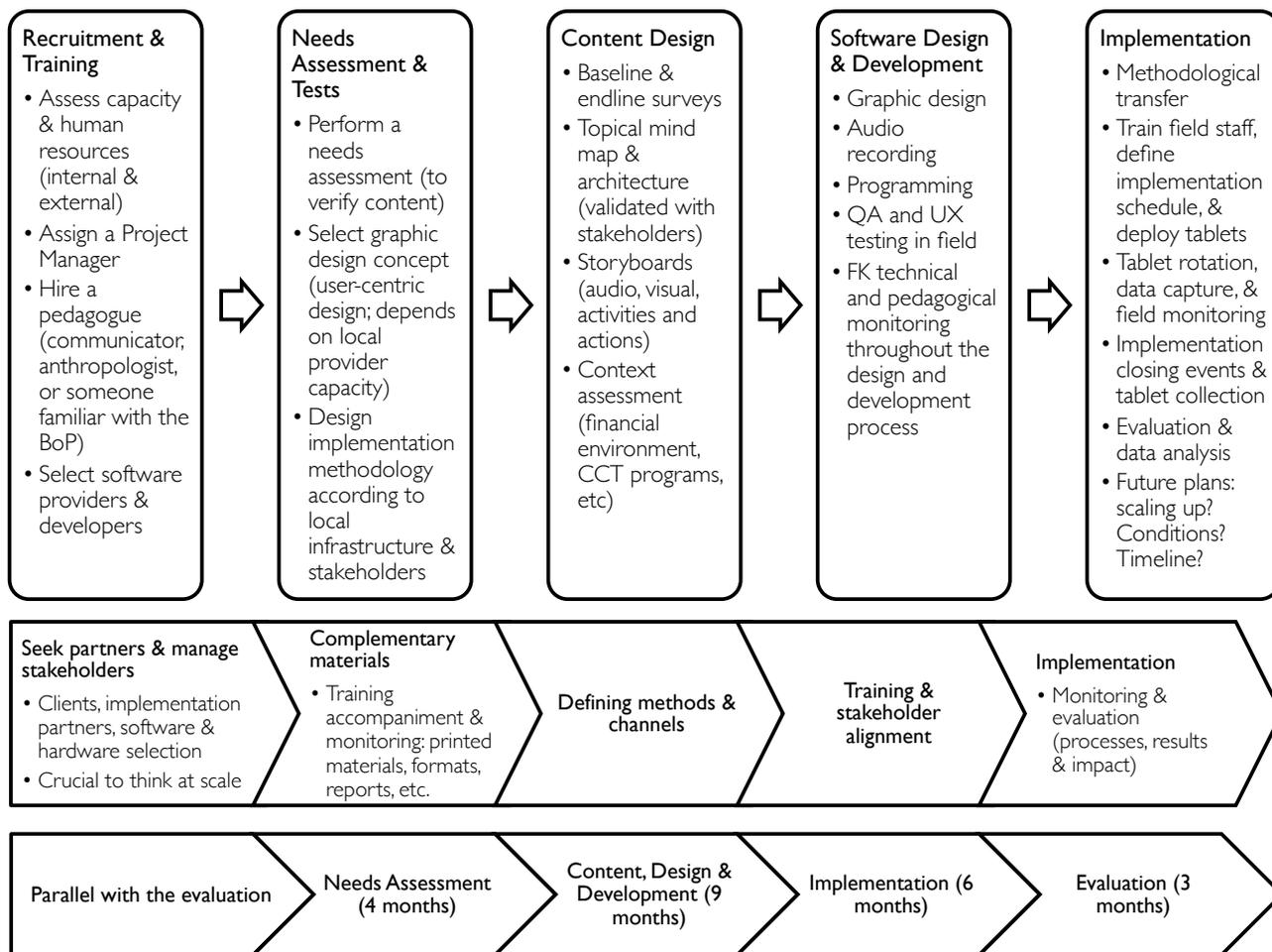
It is important to emphasize two key points about LISTA: first and foremost, the application focuses on increasing financial capabilities, but with the ultimate objective of promoting financial inclusion and asset-building. Fundación Capital firmly believes that financial education in and of itself cannot lead to significant changes in income, yet coupled with access to relevant products and services, it can make a difference. The demand-side work, which includes financial education and incentives, must be coupled with supply-side interventions to ensure that the knowledge can be applied and that it is relevant to participants.

The second point is the importance of scale. Fundación Capital didn't decide to use technology for technology's sake; the integration of digital solutions works because it can reach a greater number of people, often in remote areas, in a way that is more cost-effective than the traditional channels. However, given the high fixed costs (design and development (or customization) of the

app, hardware, labor (field workers that facilitate rotation), and accompaniment), LISTA is likely not the best option for partners looking to reach a small number of people. While some partners have expressed interest in using LISTA at a smaller scale, it really is recommended that LISTA be used by those with the potential to reach thousands and even millions of users.

Fundación Capital has often been asked what the development process looks like for LISTA, and what an implementation might entail when scaling up to a different country. That information is best determined on a case-by-case basis, because it depends a lot on the local context, the existing infrastructure, the flexibility of stakeholders, and a myriad of other issues that are difficult to present in a generalized context. However, it might be useful to consider the following graphic that depicts the phases of design and development that would take place when entering a brand new geographic context, with unfamiliar stakeholders, but with the potential to scale up significantly: knowledge with each other, in a way that will help them connect and really become inspired to make life changes.

This process, and the accompanied timeline, is by no means an indication of a standardized process, especially given that the adaptations of a Colombian LISTA to a Dominican Republic context will be much smaller than those for Brazil (which includes a shift in language, graphic design, and content) or Tanzania, for example. This is why Fundación Capital prefers to avoid presenting generalized estimates, though understands the interest of policymakers and practitioners when visualizing this process.



KEY LESSONS LEARNED

Some of the lessons learned were covered in earlier sections, particularly those related to the assumptions behind this approach to providing financial education and training, as well as the design of the software and content. Yet there are a few key lessons that are important to highlight, and those include: (1) approaching financial education from the perspective of financial inclusion; (2) the challenges of designing for a heterogeneous population; (3) the importance of institutional support and local stakeholders; (4) the need for distribution through trusted channels and leaders; (5) the need for remuneration with geographic dispersion, but not for monetary incentives.

1. Financial Inclusion as a Key Driver

As was previously stated, financial education as a stand-alone intervention lacks staying power. One does not learn how to drive by reading the car's operating manual; they need access to a vehicle and to be able to practice driving first within a safe space, and then out in the open road. The same is

true with financial education: if the training is not linked with products, then users will be unable to put their knowledge into practice. Furthermore, if they are unable to “access the vehicle” (the available financial products and services must be accessible, affordable, and adapted to their needs), then they will not engage with the financial system. It is for this reason that Fundación Capital emphasizes the importance of financial inclusion as the key driver, with LISTA and other tools for increasing financial capabilities representing only one piece of that puzzle.

2. Designing for Heterogeneity

When LISTA was initially designed, it was intended to be applicable for the three million CCT users in Colombia, who were predominantly female but were still incredibly heterogeneous, with differentiation according to geography (urban vs. rural and rural disperse), age, education, culture (particularly when including indigenous communities), economic activity (agriculture, livestock management, domestic

work, entrepreneurial activities, etc.), among others. While it might sound obvious, Fundación Capital concluded that younger and more educated users completed the training much quicker, and often requested additional training modules and information, while older users and those with lower literacy rates encountered challenges even with a simplified, audio-based application.

Another interesting factor was gender. While LISTA was initially designed for women, given that they are predominantly the ones receiving the CCTs, there have been an estimated 10-15% of male users, as the training occurs within user homes, and often involves the extended family and sometimes neighbors. Fundación Capital tried to soften the gender indicators within the application, but user heterogeneity remains a challenge for both design and content.

It is likely that Fundación Capital will need to develop a model for segmentation, to take into account these differences between the target groups, and provide more in-depth information to advanced users seeking to learn more about specific financial products and services, how to manage their business finances (not just household budgets), and who are ready to access additional products and services.

3. Partnerships

It is not Fundación Capital's intention to be the organization implementing LISTA at scale. In fact, it depends heavily on local partners and stakeholders that can speed up the needs and context assessments, as well as paving the way for implementation. When operating at scale, and particularly through CCT programs, it is crucial to ensure that all messaging and communication is aligned with national-level actors, as well as ensuring that the local representatives understand the objectives of the program and are committed to facilitating a smooth implementation process. This can sometimes be tricky in areas where local governments may want to politicize development and educational programs, or where the local population has had negative experiences with previous programs and projects.

4. Tablets Don't Rotate Alone

The LISTA Initiative was designed to be as streamlined as possible, with simplified access to the hardware, easy to use self-teaching software, and content that was both inspiring and educational. However, the reality is that access to the tablets is not always simple. The community leaders play a key role in distributing the tablets, often incurring costs without receiving remuneration for their effort. In addition, while the software is designed to be self-explanatory, the reality is that some users (particularly older participants, or those with low literacy levels) still depend on the leaders taking the time to lead them through the training process, as some are still reluctant to use the tablets. Finally, while the content is applicable for a majority of the users, younger and more advanced users demand additional and more advanced content, and the community leaders are unable to provide that or respond with more in-depth information than what is provided in the app.

It is important to recognize that these local leaders represent a trusted channel of communication, and their familiarity with the local population, as well as any potential security risks and threats, has made them a crucial element in the current "rotation" distribution methodology. This is especially important, given that the LISTA program has been implemented in some municipalities with high levels of violence and crime related to the activity of guerrilla groups. Furthermore, the work they do often requires a significant investment of time and even money, so it is important to recognize that their effort represents an important aspect of the field works and enables the program to reach such a great number of participants.

5. Incentives and Remuneration

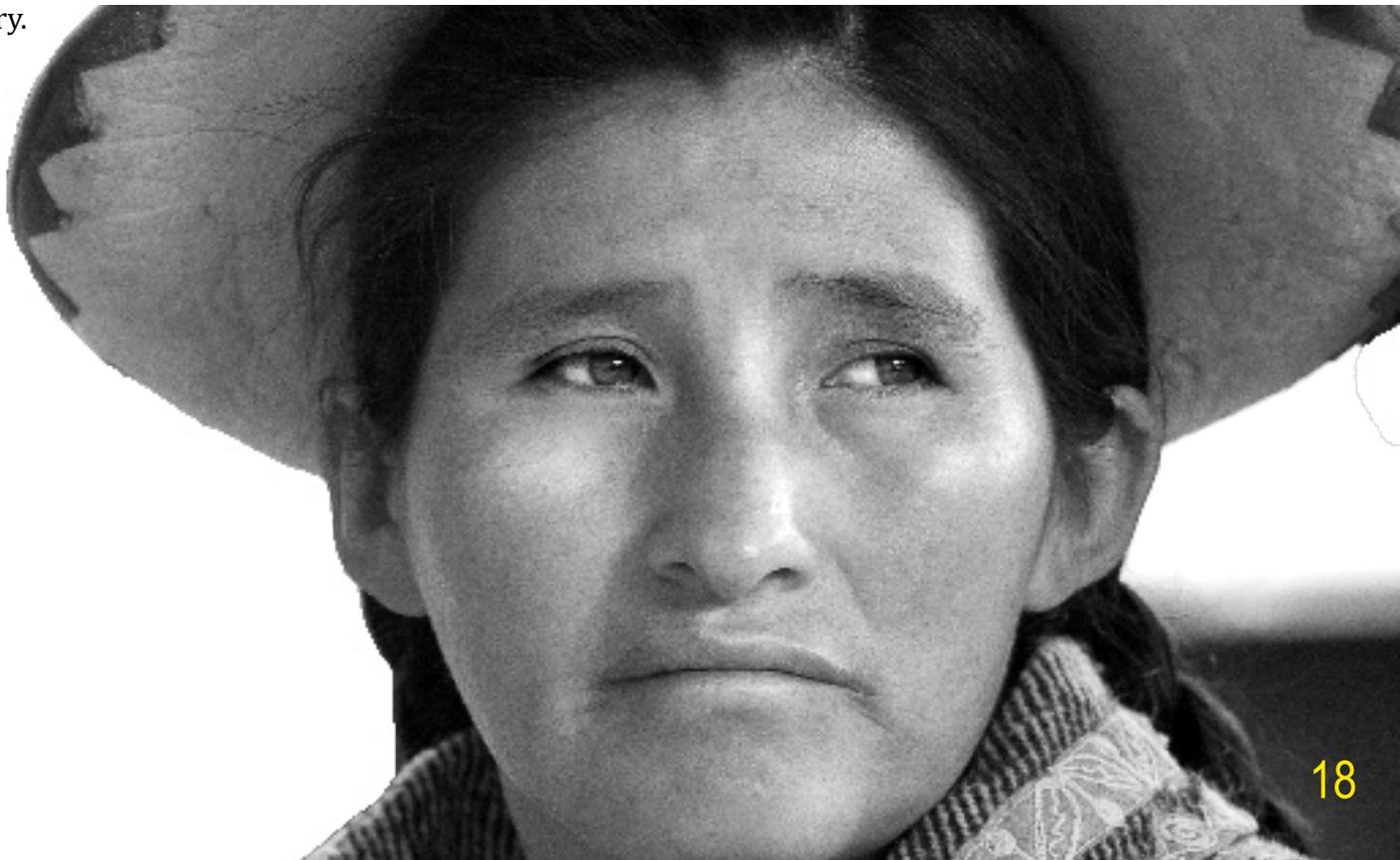
When developing the rotation model, Fundación Capital tested a number of motivational and monetary-like incentives for users, such as congratulatory SMS messages, and/or mobile top-ups of cell phone minutes. During a second implementation phase, additional tests were performed to see whether youth could be good tablet facilitators, and also whether prolonged access to the app increased participation (i.e. whether having the tablet in one's home for 2-3 days or even up to a week would result in

THE WAY FORWARD AND NEXT STEPS

The LISTA Initiative was built on the wings of the growing digital revolution, which has made technology ubiquitous in the lives of all people, regardless of income level. The studies show that half of the world's population now has a mobile subscription, and an additional one billion subscribers are expected by 2020, with new measures to improve affordability and decrease consumer barriers. The most powerful aspect of the digital revolution for present-day LISTA is the decreasing cost of hardware, which makes the delivery system more cost-effective than the traditional in-person model. However, the big bet of LISTA is that smartphones will soon become ubiquitous household items, and that there will soon be a market for apps designed for the poor and for low-income users in emerging economies. This identification of specific market segments is important, in that it recognizes their needs as valid and creates opportunities for them to actively participate in the economy as full-fledged citizens.

more individuals using it). The conclusion of this research was that a two-day estimate was often sufficient, allowing for the target user to complete the modules, but also to facilitate technological familiarization and involve the family in the training process. For example, leaving the tablets with users for seven days in Brazil did not result in an increased use of the tablet, as participants would put off the training process until the last minute, when it was time to return the tablets. Therefore, a time-bound limitation was recommended, as it kept the training top of mind.

Fundación Capital also tested whether incentives were needed for both participants and tablet facilitators. The results showed that user incentives were appreciated, but did not necessarily increase participation rates. With community leaders, it was determined that they experienced a great deal of pride from being selected to participate in the program, along with community's recognition and the additional training they received by managing the tablet and interacting with field workers. However, when brought to scale and working under tight client deadlines, the community leaders began to incur costs related to displacement and communication, particularly in rural communities with high geographic dispersion, so a remuneration for these costs would be necessary.



them to actively participate in the economy as full-fledged citizens.

Fundación Capital believes that in the next five to ten years, there will be apps to facilitate adult literacy, apps that help prevent teenage pregnancy, apps that allow the poor to connect with each other and provide services such as technical assistance to others, sharing their knowledge of agricultural or artisanal activities in a way that is much more sustainable than the current top-down model of development. Fundación Capital is willing to work with partners to help make that a reality, and believes that such an investment will make a huge difference in the lives of the poor. First and foremost, the inclusion of complementary apps to the tablet training process would make an investment in the LISTA Initiative so much more powerful, and would allow participants to access a whole suite of training programs that are designed to address specific needs. Secondly, this model would be much more sustainable, with opportunities for market-based solutions to facilitate the rotation of the technology in the rural areas. Finally, Fundación Capital is betting on the gradual uptake of smartphones by the poor, which would dramatically decrease the costs of implementation and would make distribution of training as simple as a quick download from a wireless hotspot. Once that happens, the opportunities are endless.

In the world of digital solutions for economic citizenship, Fundación Capital envisions a series of applications that support the most extreme poor by providing them with basic life skills, supporting the definition of a life plan, and giving them the tools they need to move forward. Such an app for the ultra poor already exists, and is being implemented through Fundación Capital's [Graduation Project](#). But that is only the tip of the iceberg. Moving further up the income scale, there is a need for more apps that focus on topics such as adult literacy, maternal health, entrepreneurship and business skills, language acquisition, consumer protection, agriculture and livestock information, health trackers and



promoters, and the list goes on. Fundación Capital even wants to build a localized version of the popular “LinkedIn” app that would allow users to solicit technical assistance from others in their community or even beyond, creating a marketplace that values and facilitates the exchange of local knowledge and expertise. This would tie in to the [LittleBigMoney](#) crowdfunding platform, and other online tools to support social entrepreneurs and small enterprises in emerging economies.

While Fundación Capital’s vision is bold and broad, with an ambitious goal of reaching 25 million people by 2020, this can be achieved, but only in partnership.

Written by Ana Pantelic, December 2015
For more information, visit www.fundacioncapital.org