

Instructional design for financial literacy of low literate women.

Project 3 | Guided by Prof. Girish Dalvi

Tejaswini Pundge

216330012

M.des Interaction design (2021-2023)

IDC school of design, IIT Bombay



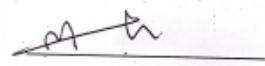
Approval sheet

A project titled "Instructional design for financial literacy of low literate women" by Tejaswini Pundge, 216330012 is approved for partial fulfilment of the requirement for the degree of 'master in design' in interaction design.

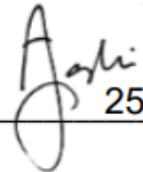
Guide



Chairperson



Internal Examiner



25-7-2021

External Examiner



Declaration

I declare that this written document represents my ideas in my own words and where others' ideas or words have been included, I have adequately cited and provided references to the original sources. I also declare that I have adhered to all the principles of academic honesty and integrity and have not misrepresented or fabricated, or falsified any idea or data or fact, or source in my submission. I understand that any violation of the above will call for disciplinary action by the institute and can also evoke penal action from the sources which have not been properly cited or from whom proper permission has not been taken when needed.

Tejaswini Pundge
206330012
IDC School of Design, IIT Bombay

Aknowlegement

I would like to thank IDC, IIT Bombay for giving me the opportunity to work on this project.

I thank my guide, Professor Girish Dalvi, for his valuable guidance and support throughout the project. Working under professor Girish Dalvi was a great learning experience.

I would like to thank the admin of Asha NGO Rajashree Madam to provide the necessary support in this project.

Lastly, I would like to thank my family and friends for their support, help, and encouragement.

Content

Project objective	9	Design Direction	31
Design Goals	9	Project Constraint	31
Motivation	9	Content for workshop	32
About the ASHA NGO	9	Ideation	34
Target Audience	10	Stage 2 jury Feedback	38
Focus	10	Refining the content	41
Ecosystem	10	Final Design Idea	43
Secondary Research		Learning Objectives	44
Previous Work done in IDC	11	Design	45
Games in the domain of financial literacy	13	A) Lesson Plan	48
NGO sessions	15	B) Exposure Presentation	51
Government Initiatives	18	C) Toolkit	
Learning for adults	19	Evaluation	61
Instructional design theories for adult learning	19	Future Work	65
Inferences from secondary research	22	References	66
Primary Reserach			
Contextual Enquiry	23		
Interpretation	24		
Affinity mapping	25		
Observations from primary studies	26		
Insights from previous work done	28		
Persona	30		

Abstract

Financial literacy is vital for empowering people to make knowledgeable financial choices and attain economic autonomy. Unfortunately, individuals with low literacy levels, especially in marginalized communities like women, face difficulties in comprehending complex financial concepts. In response to this, an instructional design project was undertaken in collaboration with ASHA NGO. The project's primary objective was to explain fundamental financial literacy concepts such as record keeping, financial goals, budgeting, investments, and online transactions. The project's final deliverables include a lesson plan, an exposure presentation, and a specially designed toolkit tailored for low-literate women, particularly those who operate small tailoring shops.

Introduction

The most common definition of financial literacy is “the ability to make appropriate decisions in managing their personal finances”. The definition is incomplete in the sense that it expresses more on the results rather than the competencies of achieving sound results. The Organization for economic cooperation and Development (OECD) defined financial literacy as “Financial literacy is a combination of financial awareness, knowledge, skills, attitude and behaviours necessary to make sound financial decisions and ultimately achieve individual financial well-being” [1].

In general, we can say financial literacy means financial, credit and debt management knowledge that is necessary to make financially responsible decisions - choices that are integral to our everyday lives. It includes paying off debt, creating a budget, and understanding the differences between various financial tools. Financial literacy has a material impact on families as they try to balance their budget, buy a home, fund their children’s education, or ensure an income for retirement.

People are financially literate if people can organise the money they have to meet future goals through effectively

money management. Some specific sets of skills financially literate people possess are

- setting goals and making plans to achieve these goals
- setting aside savings for emergencies
- keeping financial obligations under control and do not borrow money if they are unable to repay it
- monitoring spending patterns
- understanding concepts such as loans, credits and debt, aware of the services provided by banks
- knowledgeable about the investment options
- Not spending more than earnings
- setting aside part of income regularly
- planning future
- having a good understanding of tax-related issues
- Asking the right questions such as ‘What is the value of this purchase for me, ‘ is this really a need or a want,
- Researching sufficiently before shopping or any investment,
- Being aware of the reasons behind their decisions.

In modern society, being financially illiterate can be very damaging to an individual’s long-term financial success. Also, It can lead to several pitfalls, such as being more likely

to accumulate sustainable debt burdens, either through poor spending decisions or a lack of long-term preparation. This, in turn, can lead to poor credit, bankruptcy, housing foreclosure, and other negative consequences.

Holistically, the benefit of financial literacy is to empower individuals to make smarter decisions. More specifically, financial literacy is important for a number of reasons.

- Financial literacy can prevent devastating mistakes: Financial literacy helps an individual to avoid making mistakes while taking some seemingly innocent decisions with their personal finances.
- Financial literacy prepares people for emergencies: Financial literacy focuses on financial behaviour such as savings and budgeting which ultimately helps the individual to be prepared for emergencies.
- Financial literacy can help an individual reach their goals: By better understanding how to budget and save money, individuals can create plans that set expectations, hold them accountable to their finances, and sets a course for achieving seemingly unachievable goals.
- Financial literacy invokes confidence: By being armed with the appropriate knowledge about finances, individuals can approach major life choices with greater confidence realizing they are less likely

to be surprised or negatively impacted by unforeseen outcomes.

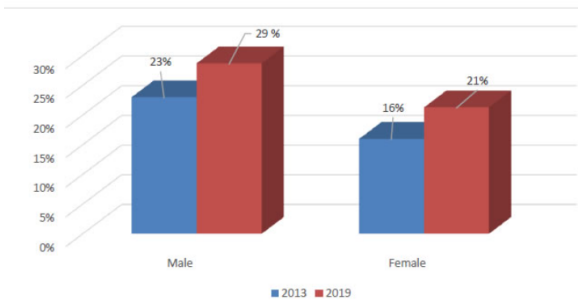
[2] Study shows that financial literacy level is correlated with the level of education. More the education level more the level of financial literacy. Hence it is challenging to provide financial education to people with low literacy.

[3] The Survey conducted in 2019 revealed that 27.18% of the respondents have achieved the minimum target score/minimum threshold score in each of the components of financial literacy prescribed by OECD-INFE [i.e. a minimum of 3 in Financial Attitude (out of 5), 6 in Financial Behaviour (out of 9) and 6 in Financial Knowledge (out of 9)] as compared to 20% in 2013.

Based on the above illustrative Charts, the following thrust areas have been arrived at for improving financial education efforts:

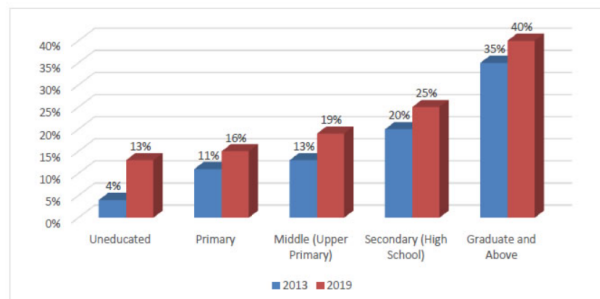
1. Though there has been an improvement over the period, further efforts are needed to improve literacy among women

Chart 1: Percentage of Population Crossing the Minimum Threshold Score
Gender-wise



2. The group with lower education needs greater financial education initiatives

Chart 6: Percentage of Population Crossing the Minimum Threshold Score
Education-wise



Women and financial literacy

Financial literacy for women is an important aspect of their independence, financial and otherwise. Women need to be financially independent due to the following reasons:

- It prepares them for emergencies.
- Women can help deal with rising costs of living and inflation if they are financially literate.
- Children tend to be more influenced by their mothers than their fathers. Being financially literate sets a good example for your children as well.
- In most households, women are responsible for the day-to-day expenses. Thus, it is helpful for them to know how best to use the money.
- Women tend to live longer than men, and thus they should have the knowledge to carry on their day-to-day affairs and manage finances.
- Women who are financially literate gain more confidence in their own decision-making.

About Project

Project objective

The objective of this project is to educate low-literate women about basic financial concepts.

Design Goals

The design goals for the intervention are

1. The user should be able to understand and engage with selected factual, procedural and social concepts of financial literacy.
2. User should be able to retain the knowledge gained through design intervention about the financial literacy concepts
3. Users should feel a specific experience about the financial literacy concepts e.g the Joy of opening a bank account.

Motivation

1. My basic motivation for this project was some prior experiences I had with women who run small businesses and are unable to manage their finances. Also, I wanted to work with this kind of special user group “Low-literate” To broaden my understanding of design in the Indian context.

2. I wanted to improve my understanding of the finance domain and learn new financial concepts.
3. To better understand the process of user studies and projects with real context.

About the ASHA NGO



Asha NGO

For this project, I needed to work with an organization that is working for the empowerment of low-literate women where design interventions were possible. For those reasons, I approached Asha Trust, Mumbai. Their primary focus areas are child education and women empowerment.

In their women's empowerment program, Asha has started a new training programme called the 'Livelihood project'. In this programme, Asha is providing training for tailoring skills for 3 months. After 3 months those who want to continue can work on various initiatives by Asha such as

replacing plastic bags with cloth bags and making reusable cloth sanitary napkins. women are getting paid according to the number of items they stitch.



Asha NGO

Target Audience

Their training program is aimed mainly at women who live in nearby slums opposite to IIT market gate and Vikroli. Most women are low literate and run small-scale tailoring shops at home.

The NGO has a good rapport with the participants. Currently, they don't have any program for financial education but are willing to include some sessions for it.

Focus

At this point, the NGO work has focused mainly on empowering them by providing basic employment that they can earn and become financially independent from others. To level up this, Asha NGO wanted to include financial education so that women can manage their finances well.

Ecosystem

Stakeholders: Management at Asha Ngo, and facilitator of a tailoring training program.

Primary User

Primary users are the participants of training program

Secondary User

The NGO workers/program facilitators are the secondary users as they would be handling and maintaining the design outcome.

Secondary Research

Previous Work done in IDC

a) Nirnay_A Financial Board Game for Women with Low-literacy



A Financial Board Game for Women with Low-literacy in Pune



[4] Nirnay_A Financial Board Game for Women with Low-literacy by Nishita Nirmal (2021) was a board game which focuses on sensitizing low-literate users about basic finance concepts and Primary topics such as a) Simple Vs. Compound Interest b) Safety, Liquidity & return c) Regular Saving d) Time Value of Money e) Risk Vs. Return f) Diversification.

b) Insti life_A Purposeful game design



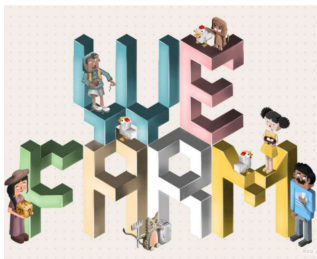
[5] Insti life_A Purposeful game designed for Financial awareness was a card game designed for First-year college students by Harshit Sathija (2021) which focuses

1. Teach financial skills - The game should incorporate skills like saving and budgeting, which are essential to managing money.
2. Awareness about the Financial landscape through the discussion - The game should achieve a discussion on the financial products which are available to students which in turn will help them become financially aware and conscious.
3. Leaned content should be applicative - The subject matter should be as contextual as possible.

This will simulate the environment around students and help them build up the confidence to act on the knowledge in real life.

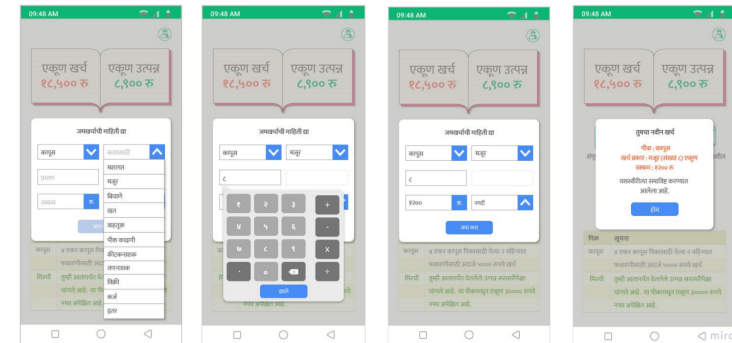
4. Self-reflective nature - The game should allow students to reflect on their decision which might bring a positive change regarding the financial habits and attitudes of students.

b) We Farm_Financial Literacy tabletop game



[6] We Farm_Financial Literacy tabletop game designed for school students of class 8th by Shivangi Daffinie (2022) which is based on concepts such as personal emergency situations, the country's economic state, investment and reputation value.

c) A tool to assist financial record-keeping for farmers



[7] A tool to assist financial record-keeping for farmers in Vidarbha designed by Dheeraj Dethe (2020) was a mobile-based application in the Marathi language to assist record-keeping for farmers. The goal of this project was to provide farmers in the Vidarbha region, with easy-to-use tools to keep financial records with very negligible manual efforts. However, the project does not attempt to improve the financial literacy of farmers directly but looks at the project as a small step towards it.

c) Menopause Awareness and Management Among Indian Women of Low to Middle-Income Groups



[8] Menopause Awareness and Management Among Indian Women of Low to Middle-Income Groups (2018) designed by Manasi Mankad was a toolkit designed to make women aware of the consequences of menopause (symptoms, risks, counselling) and methods/options for relief and management so that they can be better equipped to cope with it. A key highlight of the project is the form of record keeping and 'visualizing' method which does not require one to be literate to use it. A similar mechanism could be used for tracking other kinds of data, like financial transactions, fin. goal setting and monthly completion, etc

Games in the domain of financial literacy

a) Farm Blitz - Doorways to dreams fun

Farm Blitz is an online game designed by the Doorways to dreams fund. The game has interesting financial metaphors that could also be used in a physical/board game. In Farm Blitz, the player takes on the role of a farmer and harvests crops. If there are three crops in a row, they can be harvested and placed in the cash account. However, the player is not allowed to withdraw it till the end of the round. Thus if the player needs money, they will have to borrow it in the form of 'Rabbit loans'. Example of a financial metaphor: The 'Rabbit loans' are called such because they reproduce quickly, i.e. the short-term loan has quite a high-interest rate. After playing the game, players saw a huge improvement in both financial confidence and literacy.



b) Praxis



To win in Praxis, you must accumulate as much wealth as you can before time runs out. The game is designed to be as close to real life as possible by simulating real economic conditions. This adds to the suspense you will experience while playing, thus making every session different.

Playing Praxis is very straightforward. Each player starts with the same job and salary, then moves around the board with a dice roll. Depending on where you land, you can do any things like Get savings, Purchase a retirement plan, Purchase insurance, or Purchase property to help you accumulate wealth.

c) Ratrace

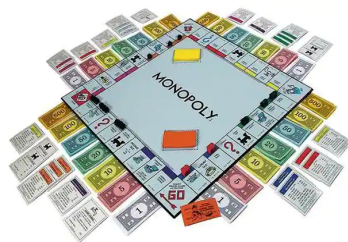
Ratrace is all about social success. You start out in life with 200 dollars, a credit card and a business in the working class (outer ring of the board) and your objective is to get into the middle class and eventually high society. You will be having to face usual events like running a business, paying taxes, getting an education, joining social clubs and much more. You will win by retiring with 100,000 dollars. Ratrace is all about social success. You start out in life with 200 dollars, a credit card and a business in the working class (outer ring of the board) and your objective is to get into the middle class and eventually high society. You will have to face usual events like running a business, paying taxes, getting an education, joining social clubs and much more. You will win by retiring with 100,000 dollars.



d) Other role-playing financial life-Based games

I also looked at the games that were made to teach financial concepts like Meri dukaan, Moneytopia and Cashflow

For example, Moneytopia simulated real life, and it focuses on experiential learning by having the player encounter various financial scenarios throughout the game, such as buying insurance and paying bills. Cashflow allowed players to role play and live the life of different professions. The game allowed players to set a dream and then challenges the player to reach that dream through multiple game mechanics.



NGO sessions

a) Sukalyan Welfare - Financial Literacy Centres

Financial Literacy Centres is a flagship program of Sukalyan that is ideally located in densely populated and easily accessible areas in the village to serve the maximum number of rural communities at a time. Each centre covers at least 15 villages with typically 2500- 3500 households in a year. These centres are selected after a thorough need assessment with the primary indicators of a non-accessibility of banking services, low savings habits

among the communities and lack of access to information on Govt. schemes and primary entitlements.



Village-level awareness session going on at Khordha FLC, Odisha



Village level awareness session going on at Khordha FLC, Odisha

b) Parinaam foundation - Diksha Program

Parinaam foundation has its own Financial literacy program called the 'Diksha Program' which targets low-literate women as its primary participants.

They have a range of activities:

1. Role Playing Games

Women take on the role of Shopkeepers, wives, children, and husbands and play out different decision-making scenarios. Their decisions are then analyzed by the participants in the audience. This helps women reflect on

their own situation and come up with their reasoning strategy for making decisions.



(Diksha financial Literacy PROGRAM., 2021)



2. Financial Diaries

The participants are taught to record all their transactions and be mindful of past and future monetary decisions.

3. Numerical Literacy

While a lot of the women were low literate or illiterate, they were doing basic calculations using calculators.

4. Scenario enactments

As shown above, a male volunteer wears a sari and enacts an emotional story as the audience watches.

5. Pledges and affirmations

Participants collectively affirm and pledge to reduce spending and start saving.



Buzz women sessions

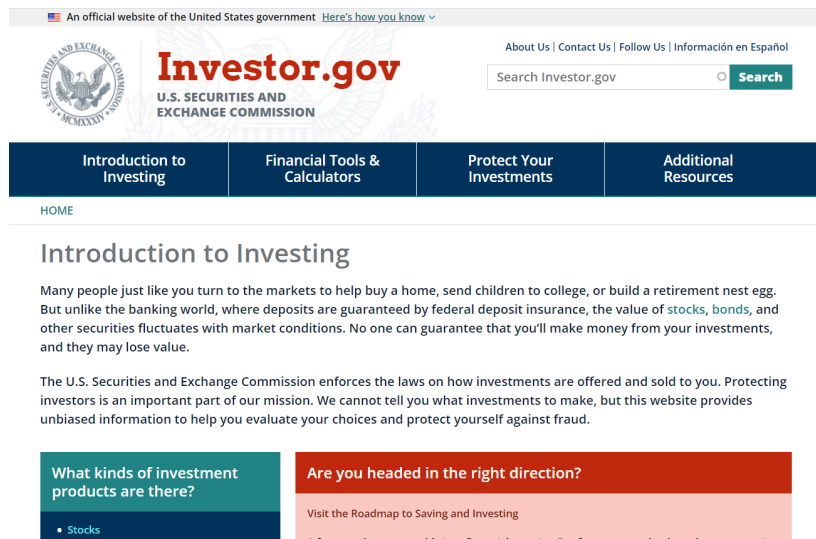
c) Buzz women, Bangalore

The buzz women program goes to rural areas, as well as helps the urban poor understand the basics of formal finance, numerical literacy and even business development. It equips them with all the tools necessary to pull themselves out of dire monetary situations and rebuild towards a more financially stable life. Pictured here are lessons in record-keeping and the women singing songs about financial management.

Government Initiatives

The Financial Literacy and Education Commission (FLEC)

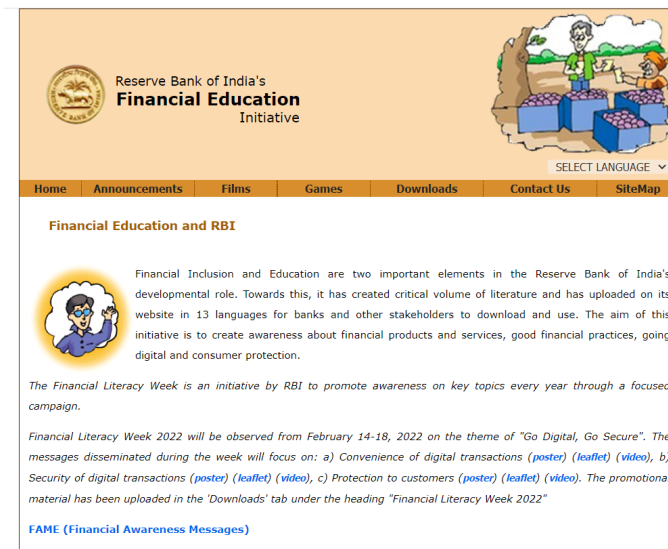
The Financial Literacy and Education Commission (FLEC) is a U.S. government agency that promotes financial literacy and education. They have a number of resources available, including guides, tools, and educational materials on topics such as saving and investing, credit and debt, and financial planning.



<https://www.investor.gov/introduction-investing>

Financial education initiative (RBI)

The RBI also has a number of initiatives and programs focused on promoting financial inclusion, including programs aimed at empowering women.



<https://www.rbi.org.in/FinancialEducation/home.aspx>

Learning for adults

Adult learning theories is based on the premise that adults learn differently than children. Here are some significant differences in which adult learns differently than children.

- Adults have an existing base of knowledge and life experience. They seek out continuous learning based on personal interests, wants, and needs.
- Adults understand why they're learning, so their motivation levels are naturally high
- It's beneficial to let adults work things out for themselves and organize themselves.
- The role of "teacher" may be effectively filled by a mentor, coach, training facilitator, peer, or subject matter expert.

Instructional design theories for adult learning

1. Transformational learning

It is Developed by Jack Mezirow in 1978. Transformative learning theory posits that *all learners use different assumptions, expectations, and beliefs to make sense of the world around them.*

- Transformational learning attempts to help learners change — or transform — their existing frames of

reference through a process of problem-solving, procedural tasks, and self-reflection.

- Learning transformations occur when individuals face a "disorienting dilemma" that challenges their existing beliefs and critically reflects upon what has taken place.
- It's considered one of the "stickiest" types of learning because it can shift an individual's perspective on how to behave, interact, or problem-solve.

Transformational learning is best suited for:

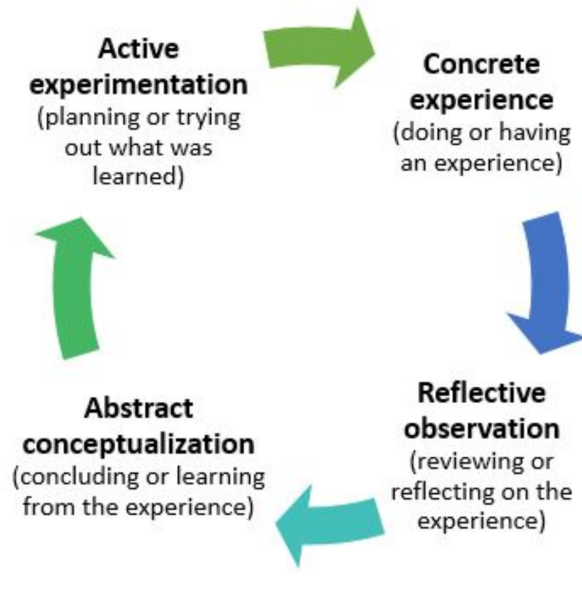
- Personal change and a growth mindset
- Complex analytical processes
- Situational evaluation and analysis

2. Experiential learning

It is Developed by David Kolb in the 1970s. Drawing on the work of John Dewey, Kurt Lewin, and Jean Piaget, experiential learning requires a hands-on approach that puts the learner at the centre of the learning experience.

- Active participation is key, but the theory says that learning happens only when the individual reflects upon what they are doing.
- The four elements of experiential learning are active involvement, reflection upon practice, the

conceptualization of the experience, and the use of knowledge gained from experience.



1. Concrete Experience: This can either be a completely new experience or a reimagined experience that already happened. In a concrete experience, each learner engages in an activity or task.

2. Reflective Observation: After engaging in the concrete experience, the learner steps back to reflect on the task. This stage in the learning cycle allows the learner to ask questions and discuss the experience with others.

3. Abstract Conceptualization: The learner attempts to draw conclusions from the experience by reflecting on their prior knowledge, using ideas with which they are familiar or discussing possible theories with peers.

4. Active Experimentation: Learners return to participating in a task, this time with the goal of applying their conclusions to new experiences. They are able to make predictions, analyze tasks, and make plans for the acquired knowledge in the future. By allowing learners to put their knowledge into practice and showing how it is relevant to their lives, you are ensuring that the information is retained in the future.

Experiential learning is best suited for:

- Systematic thinking
- Process-oriented tasks
- Mechanical skills development

3. Self-directed learning (SDL)

SDL is rooted in Malcolm Knowles' theory of adult learning.

- SDL is a process where individuals take the initiative to diagnose learning needs, form learning goals, identify resources, implement a learning plan, and assess their own results.
- SDL often occurs with the help of teachers, mentors, resources, and peers.
- Requires the learner to be able to access and select appropriate learning.
- The learner exercises control over all learning decisions.

SDL is best suited for:

- Self-motivated learners
- Technology-based learning
- Teaching system-based or process-based knowledge
- Massive open online courses (MOOCs)

3. Project-based learning (PBL)

Developed by John Dewey in 1897, project-based learning theory holds that learners acquire a deeper knowledge through active exploration of real-world problems. Dewey called this principle "learning by doing."

- PBL requires learners to solicit feedback and continually review results. This iterative process is believed to increase the possibility of long-term retention of skills and knowledge.
- It requires the use of diverse skills, including inquiry, critical thinking, problem-solving, collaboration, and communication.

PBL is best suited for:

- Long-term project management activities
- Process improvement
- Software and technology research and development

4. Action learning

It is developed by Reg Revans in 1982. Action learning is an approach to problem-solving that involves taking action and reflecting on the results.

- The goal of action learning is to improve problem-solving processes and simplify the resulting solutions.
- This approach tackles problems by first asking questions to clarify the problem, reflecting on and identifying possible solutions and only then taking action.

- Questions build group dialogue and cohesiveness, develop innovative and systems thinking, and improve learning results.
- Action learning requires that the group be able to take action on the problem it's working on. If learners make recommendations only, the group loses its energy, creativity, and commitment.
- There should be a coach who helps the group to learn and work smarter and more effectively.

Action learning is best suited for:

- Uncovering areas of learning need
- Filling in gaps in organizational knowledge
- Team Building

Inferences from secondary research

- Most of the projects that happened previously in IDC are either game design or interaction design.
- There are a lot of other games available in the market which creates fun and provide create an engaging experience for users, but a majority of them address abstract financial concepts and not the concepts which are useful in day-to-day life.

- NGO sessions involve majorly lecture series and awareness campaigns. Parinam foundation has included activities to create participant engagement.
- Other govt initiatives consisted of online portals and online documents available for financial education which are inaccessible to the low literate user groups.
- Learning through experiences and actions creates better engagement and helps knowledge retention. Hence the theory of experiential learning and action learning will be used as a base for designing.

Primary Research

Contextual Enquiry

Contextual enquiry has been conducted with three users in order to understand the financial literacy level of the user and their financial behaviours.

What I wanted to know from the users:

- What is the Financial literacy level of users?
- What are their financial goals?
- What are the current methods they follow to gain financial knowledge?
- What is the current financial behaviour to achieve the financial goals?
- What are the difficulties they faced to achieve financial goals?

The contextual enquiry session was divided into a three-session introduction, the Main part and a wrap-up

Introduction

At the start of the interview I told the participants about me and the project I am working on. Also, I asked them about their background and family for the ice break.

Main part

This was the main part where asked them questions regarding the current practices they follow for money management and financial tools they are familiar with.

Following are the key questions prepared for this:



miro

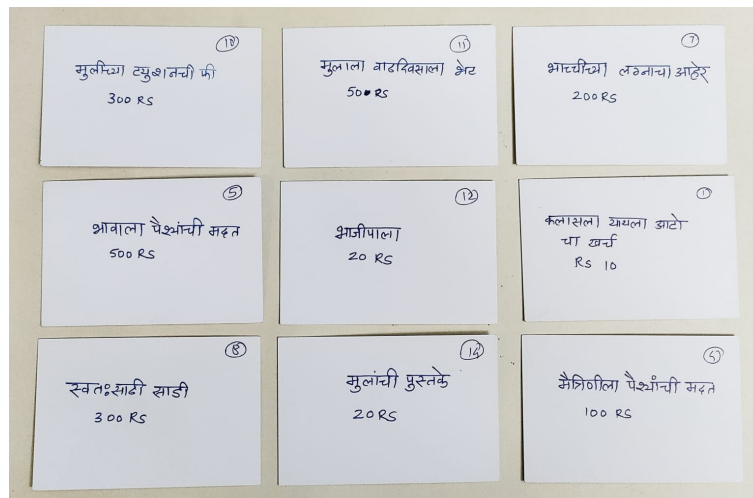
Wrap-Up

In the wrap-up session I majorly asked them about their future plans and gave them one simple task.

Task

Main objective of the task was to get insight into their budgeting skills and saving behaviour.

I gave them some cards each written with some kind of household expense with the amount needed and asked them to sort out the cards according to on which they spend the money if they have to manage in a 1000 rs.



Task Cards

Interpretation

Notes collected from the interviews are segregated according to the type i.e User statements, Insights, Design ideas, Breakdown and observation.

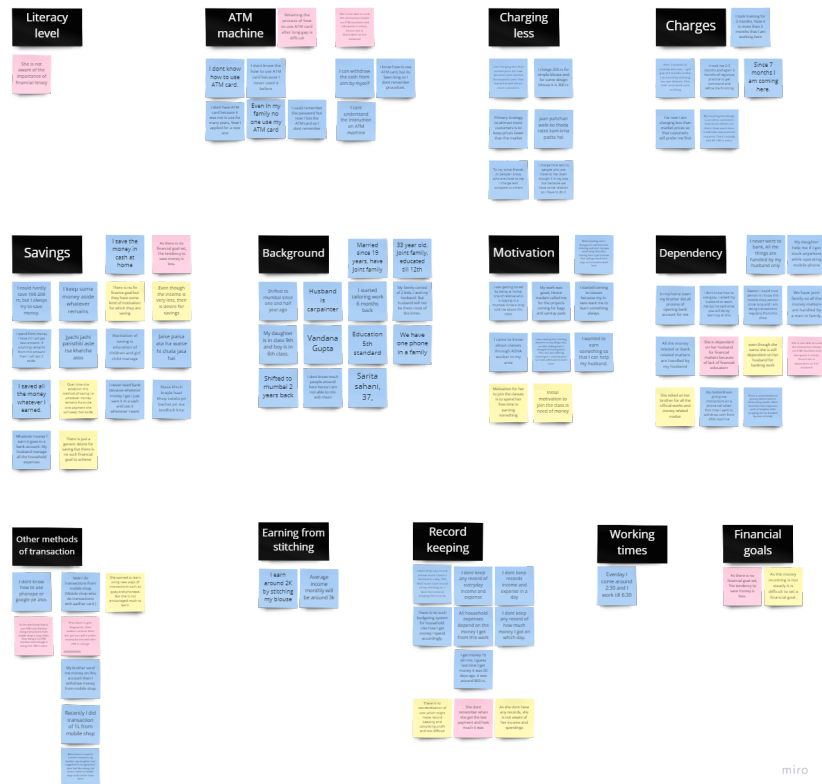
Notes	Type
1 I came to know about classes through ASHA worker in my area	User Statement
Primary trustful source of information regarding govt schemes or things happening in that area is ASHA worker	Insight
Creating better information system by increasing involvement of asha worker.	Design Ideas
After 3 months of training was over, I got gap of 3 months in that I practiced by stitching my own blouses. Also took small work such as fitting	User Statement
2 I saved around 2K by stitching my blouse	User Statement
As there is no financial goal set, The tendency to save money is less.	breakdown
My work was good, Hence madam called me for the projects coming for bags and sanitay pads	User Statement
3 we are group of 5 ladies who majorly works on the orders	User Statement
4 Everyday I come around 2:30 and I work till 6:30	User Statement
5 I can complete 4-5 bags in this 4 hrs of time	User Statement
They are skilled in a tailoring work	Insight
6 I get the cuttings by madam only stitching work I do	User Statement
NGOs prefers to provide cutting because They are skilled in a stitching work but they dont about raw material optimization while cutting cloth.	Insights
9 jyachi jashi paristhiti aste tsa kharcha asto	User Statement
10 All household expenses depend on the money I get from this work	User Statement
11 I could hardly save 100-200 rs, but I always try to save money.	User Statement
Even though the income is very less, their is desire for savings	Insights
Introducing ways of saving which dont need stable income source	Design Idea
13 I spend from money I have till I will get next amount. If anything remains from this amount then I will put it aside.	User Statement
Over time she establish this method of saving i.e whatever money remains from the one payment she will keep that aside	Insights
Introducing ways of increase some little amount in terms of interest on money she already saved	Design Ideas
As the money incoming is not steady it is difficult to set a financial goal.	Insights
14 Maza khrch krayla haat khup sutato pn bachat pn me tevdhich krte	User Statement
As there is no financial goal set, The tendency to save money is less.	breakdown
15 I save the money in cash at home	User statement

Notes from the interviews

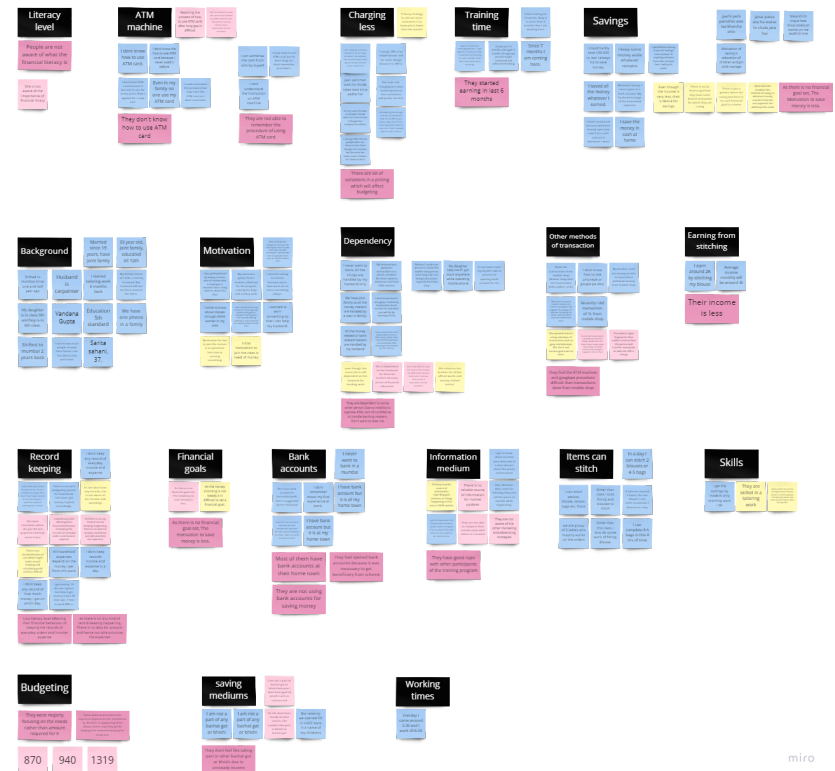
Affinity mapping

Affinity mapping has been used as a method of interview analysis which helped to find out the common themes that emerged from the interviews.

Level 1:



Level 2:



Observations from primary studies

Following are the themes that emerged from the interview analysis

Financial literacy level

They are not aware of what financial literacy is.

Throughout the interviews, whatever questions I asked them about bank accounts, ATM machines or things they know about banking and things they want to learn; They are aware of the fact that they should learn these things but they are not much encouraged to gain the knowledge and handle banking processes independently.

ATM usage

They are not able to perform transactions through ATM machines Independently

All three women mentioned that they don't use ATMs frequently. When asked about their experiences of using ATMs mentioned that "My husband was there giving instructions about what button to press", and "My brother only does ATM transactions for me". When I asked them to guide me on how to use the ATM they were not able to remember the steps but just only one thing is to enter the pin.

Variation in pricing to get more customers

The primary strategy to attract more customers is to keep the prices lower than the market. Not having standardized prices will make it difficult to calculate the profit and loss.

Majorly women mentioned that they usually charge less than the market as they are just starting the business and there is a chance that customers will prefer you because of low prices. Also, They charge less to friends and family than others.

No financial goal

As there is no financial goal, the motivation to save any fixed amount is very less.

They stated that there is not any fix financial goal set so far for saving. They just try to spend less but there is no other saving method followed so far. The general motivation to save money is child education or daughter marriage.

Motivation to join a training program

The primary motivation to join a training program is to earn money.

Majorly women said that they joined the training classes because they already knew the basics of tailoring and now they want to master the skill to start their own tailoring shop. Some mentioned that they joined classes to spend their free time learning something.

Dependency on others

They are dependent on some other person Due to their inability to operate ATM machines and online payments. There is a Lack of confidence to handle banking matters and they Don't want to take risks.

One of them mentioned that she never went to the bank as her brother only handle bank matters. Some of them mentioned that they took help from their children to transfer the money through UPI. One of them mentioned she always goes with her husband to a bank. If he is not there, then he will guide her on a phone call for the process.

Informal ways of transaction

Instead of doing transactions from the ATM shop they are choosing informal ways such as some mobile shops where retailers will charge more and transfer the money on their behalf of it.

One of the women mentioned that she is doing transactions from a mobile shop by giving her Aadhar numbers and fingerprint. She finds this method is easy rather than going to an ATM as she doesn't feel confident operating an ATM.

Record keeping

They don't have a habit of record keeping. As there is no data on record, It is difficult to find out how to prioritize the expenses.

No one mentioned keeping any record of money they earned or expenses. They were not able to specifically tell me any date When asked them when they got the payment last time.

No fixed financial goals

As they don't have a steady income, they are not able to set any fixed financial goals.

When I asked them about what they are saving for and do they have any fixed target to save money they said we don't have a steady income so how we can set a fixed goal?

No use of Bank accounts

They have bank accounts at their hometown branch but they are not using them for transactions or saving money

They said they opened a bank account because it was mandatory to get beneficiaries from some government scheme. After that, she never used the bank account for the purpose of saving money and transactions.

Good rapport with women in a training class

Women in training classes has a good rapport with each other. They discuss things such as market rates of raw materials needed and charges for blouses in the market.

Other saving methods

Currently, They are saving money in cash. They are not a part of any bachat gat or this for now.

Majorly women mentioned that they are not able to participate in any bachat gat or bhishi because of unsteady income. So they are saving money in cash only. similarly, they have a perception that they need to invest a lot of money to enrol in any kind of saving scheme offered by the government.

Insights from previous work done

[9] Similar study has been conducted in the year 2021 by Nishita Nirmal to complete her design research seminar. Following are some of the observations from it:

1. Interacting with financial systems

- Participants typically delegated any relatively complex financial transaction to trusted family members.
- they felt intimidated and overwhelmed by big urban banks.
- she is perceived as easily exploitable in an institution which does not recognise or address her challenges directly in a reliable manner.
- They trusted this informal method (Transactions from a mobile shop) over the bank because she would get immediate feedback from her son and was willing to pay extra for such transparency and convenience.
- participants trusted direct social relationships over abstract/impersonal systems.
- Participants also chose more personal systems over impersonal systems as they felt like the added social connection made systems more reliable and approachable.

- Dependency on family members/ friends disallows them any kind of financial privacy not by choice but as a necessity.

2. Embeddedness and belongingness

- Participants felt embedded in and invested financially in places where they had a support system and where their children's future was foreseeable. P1 took all her hand loans from acquaintances in her village. P3 arranged for her groceries and ration in bulk from her village and rarely spent on ration in the city.
- some participants moved to the city to earn and pay back debt, and others moved, out of necessity.
- She is faced with the choice between following cultural norms to protect her social standing in the village and earning enough to provide for her children's needs.

3. Community and family

- Participants indicated that paying their financial dues was always their first priority.
- participants felt responsible for managing the household expenses and making financial decisions related to debt repayment, saving and financial planning.

- None of the participants maintained written records but was able to manage most deadlines. This could indicate that they actively thought about financial matters on a regular basis.
- participants felt more comfortable taking hand loans from other women
- Gaining the trust and friendship of other women was beneficial to both. Her friends offer her interest-free loans when the need arises just as she has offered many of them in the past. when in need, P2 requests an advance on her pay from the women in whose houses she works as a maid.
- participants brought up in relation to their life goals was their daughter's marriage. This financial goal was largely dictated by strong social and cultural norms.
- Child-rearing seemed to be the primary theme around which the participants planned their long-term expenses. This included children's marriage, helping them build businesses, taking loans for their education, paying off their debts and so on.
- they did not have any medical contingency plans.

Persona

Based on the primary research, I mapped down the persona which specifies the background, Motivation, frustrations and needs of a target user group.

Sarita, 37 years old, Trainee at Asha tailoring classes

Sarita is from Uttar Pradesh. She came to Mumbai with her husband for work 5 years back. She has 3 sons. She can read Hindi but is not good at writing Hindi. She is attending the tailoring training and parallelly working on some of the stitching order projects ASHA NGO has got.

Motivation

She is going to start her own tailoring shop soon. Hence she wants to learn financial management so that she can make informed decisions about the money she earned.

Frustrations

- She don't know how much she earns from NGO work orders to date, as she don't have any recorded entries.
- Due to the inability to operate the ATM on her own, she is doing transactions from a mobile shop by giving extra charges.
- She needs help handling banking matters. For that, she is dependent on her brother and husband.

Ideal experiences

- Effortless record keeping
- Easy budgeting
- Able to operate ATM machine independently
- Clearly able to visualize how much she is earning and how much she can save.



Design Direction

Workshop design for the introduction of financial concepts

Why workshop design?

Through discussion with the NGO admin and primary research, I learned that 1) They don't have basic content structured for conducting the sessions 2) Participants are not aware of the very basic fundamental financial concepts.

I thought of through workshop design we can introduce the fundamental financial concepts and addresses some social and psychological problems as well. I will not only be focusing on facilitating procedural knowledge but also designing for specific experiences such eg. as designing for the joy of opening a bank account. For this workshop, I will be designing lesson plans to help facilitators and learning aids for the participants. I am considering a theory of experiential learning and action learning will be considered as a base for designing of the workshop.

Project Constraints

Number of workshop sessions

From the discussion with the NGO admin, we decided on The course can be conducted once every Saturday.

Considering the 3 months of training duration, the course for financial education should not take more than 12 sessions and each session will be around 1 hr.

Devices participants have access to

A training class is equipped with android TV and participants have android phones.

Language of workshop sessions

Participants is not comfortable with English. So the content for workshop sessions should be in Hindi and Marathi.

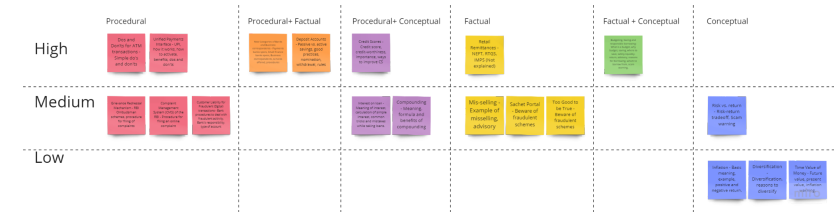
Content for the workshop

I have referred to the [content](#) shortlisted for the project Nirnay_A Financial Board Game for Women with Low-literacy by Nishita Nirmal. I have prioritised the content according to relevance in their day-to-day life and the specific context of women participants who are about to start their own businesses.

High priority: Dos and Don'ts for ATM transactions - Simply do's and don'ts (Procedural), Unified Payments Interface - UPI, how it works, how to activate, benefits, dos and don'ts (Procedural), New Categories of Banks and Business correspondents - Payments banks specs, Small finance banks specs, Business correspondents, services offered, procedures (Procedural+ Factual), Deposit Accounts - Passive vs. active savings, good practices, nomination, withdrawal, rules (Procedural+ Factual), Credit Scores - Credit score, credit-worthiness, importance, ways to improve CS (Procedural+ Conceptual), Retail Remittances - NEFT, RTGS, IMPS (Factual), Budgeting, Saving and responsible borrowing- What is a budget, why budget, saving, where to save, safety-liquidity-return, advisory, reasons for borrowing, whom to borrow from, scam warning (Factual + Conceptual).

Medium priority: Grievance Redressal Mechanism - RBI Ombudsman schemes, a procedure for filing complaints, Complaint Management System (CMS) of the RBI - Procedure for filing an online complaint, Customer Liability for Fraudulent (Digital) transactions - Bank procedures to deal with fraudulent activity, Bank's responsibility, type of account, Interest on loan - Meaning of interest, calculation of simple interest, common tricks and mistakes while taking loans, Compounding - Meaning, formula and benefits of compounding, Mis-selling - Example of misselling, advisory, Sachet Portal - Beware of fraudulent schemes, Too Good to be True - Beware of fraudulent schemes, Risk vs. return - Risk-return tradeoff, Scam warning.

Low priority: Inflation - Basic meaning, for example, positive and negative return, Diversification - Diversification, reasons to diversify, Time Value of Money - Future value, present value, inflation warning.



Content prioritization

Final concepts

Primary research suggests some of the concepts which seemed relevant to the user group based on their daily activity. Also, I have discussed the content with Mr Chaitanya Nadkarni who is an expert in the financial domain and specifically works for people with low literacy. The following are prominent concepts I will be considering for this project.

ATM use: Structure of ATM card, How to get, Activation of an ATM card, Using ATM card for cash withdrawal, Transferring money to another person from ATM, Swiping card and doing transactions at shops, Blocking of the card,

Cash deposit machine: Procedure to use cash deposit machine

Record keeping and Budgeting: Introducing some system for record-keeping, Categorising the expenses, Financial goals, Steps for budgeting, 50-30-20 rule for budgeting,

Bank accounts: Types of bank accounts, Procedure to open bank accounts, Slips for a cash credit and cash withdrawal.

Other saving methods: Other saving schemes and how they can choose the specific schemes for them.

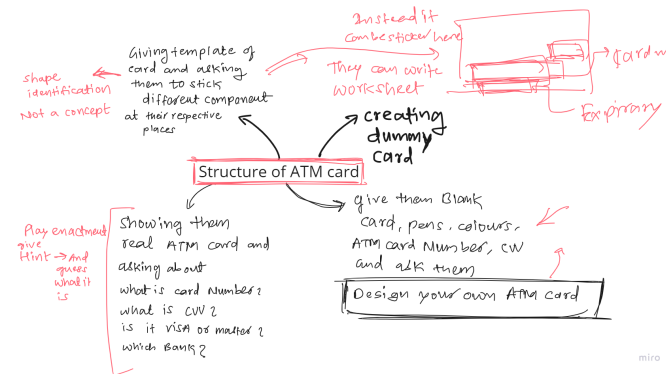
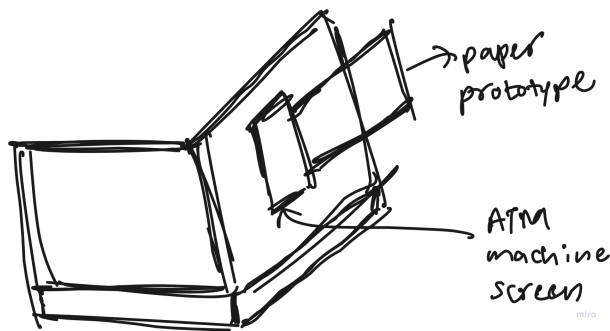
Online transaction methods: Procedural method for transactions using google pay, phonepe and Paytm.

Ideations

Following are the initial ideas thought of to teach specific concepts. The technique of mind mapping has been used where the concept has been put in the centre and ideas to teach the concept are linked in the surrounding area.

Overall product ideas:

- Tool kit so that participants can learn the concepts without a facilitator
- Interactive book which will explain the concept through stories
- One mascot will tell its story at each phase

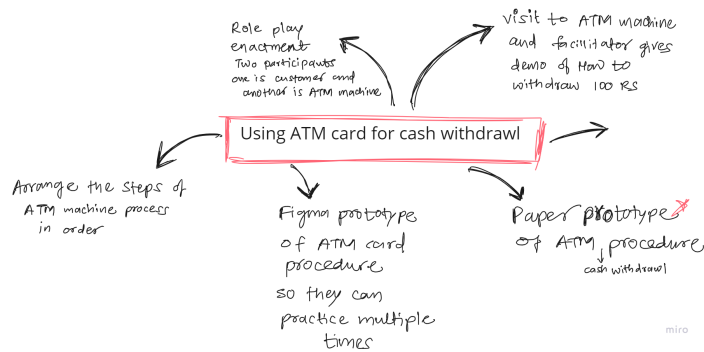


Structure of ATM card

- Giving the ATM card template and asking them to annotate the right part
- Ask participants to make their own ATM card, Providing the elements like Card number, Cardholder number, and CVV.
- Showing them a Real ATM card and asking questions like what is the card number? What is CVV? What is card holder's name? Is it a visa card?
- Put the paper cheats with hints eg. I am a three-digit number, without me, transactions cannot happen, Who I am? Participants will pick one cheat and others will guess the element.

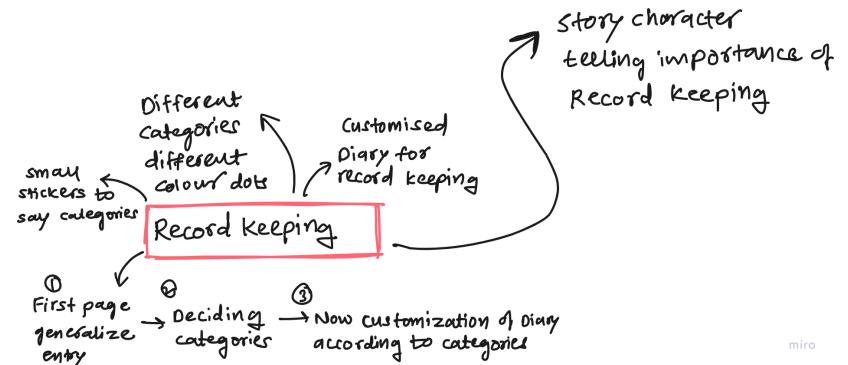
Using ATM card for cash withdrawal

- Scaffolding steps of a procedure
- Discussion about how they usually transfer the money. Why they don't use ATMs?
- Explaining the benefits of using an ATM



Transferring money to another person from an ATM

- Trip to an ATM machine to show a live demo of these procedures
- Paper prototype of these procedures
- Role play enactment -
- One participant will be machine another is a user. Dialogues between them to withdraw cash



Record keeping

- Story character will tell the importance of record keeping
- Customized diary for record-keeping

Writing the financial goals



First few pages generalize entry of income and expense



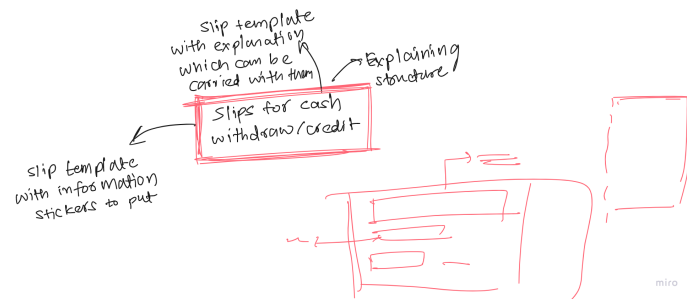
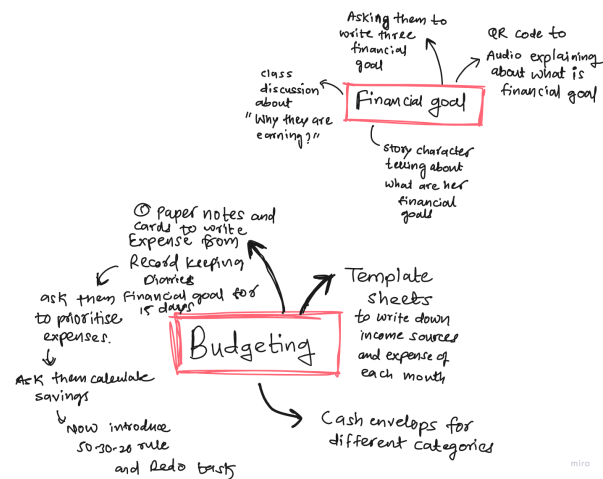
Introducing expense categories



Analysis of categories

Financial goal

- Story character will tell what is her financial goal
- Class discussion about why they are earning? What is the financial goal?
- Audio explaining financial goal



Budgeting

Analyze the data from record keeping book



Will give them paper notes



Cards to write the categories



And ask them to prioritize the expenses

- Women character telling her story of how much she earns and how she divides her income into parts
- Differentiating needs and wants, Listing out things and separating them if they live without it or not
- Different envelopes to put money for different categories
- Template sheets to write down income sources and expense of each month for a year

Bank accounts

- Explanation of bank accounts using flash cards
- Role play of different personas 1) Business person 2) Housewives 3) Salary person, Then ask them to pick right bank account for them.
- Card game designed for bank accounts and personas

Slips for cash withdraw / credit

- Detachable Slip template with explanation

DEPOSIT SLIP **BANK COPY**

citibank **citi**

Account Number : Account Holder's Branch : Date :

OR

Credit Card Number : PAN Number*:

Account Holder's Name :

Bank Name & Branch	Cheque/DD No.	₹	Ps.	Cash Denomination	₹	Ps.
				1000 ₹		
				500 ₹		
				100 ₹		
				50 ₹		
				20 ₹		
				10 ₹		
				₹		
				Total		

Total Amount (In Words) Rupees Tel. No. / Mobile No.

Name of Depositor : Signature of Depositor:

*For all cash deposits (FF & CDS) and above, the depositor shall provide the PAN number. In case PAN number is not available, the depositor shall provide Form 6008. Name is PLEASE USE SEPARATE SLIPS FOR CASH, LOCAL & OVERSTATION CHEQUES (PLEASE MENTION YOUR ACCOUNT NO. & NAME ON THE BACK OF THE CHEQUES IT) ALSO. The depositor understands that cheques not specifically crossed and made "account payee only" may lead to fraudulent encashment and that Citibank, N.A., shall not be liable or responsible for any such loss/damage/loss. CITIBANK, N.A., (Incorporated with limited liability in the U.S.A.)

CUBANCASAV01.3/09-14

Stage 2 Jury Feedback

- The understanding root problem - The root problem was not clear in the presentation.
- Defining Low-literacy and financial literacy- The presentation did not provide a clear explanation of what is meant by low literacy and what knowledge and behaviours financial literacy includes.
- Finding out functional literacy for the life of women tailors - The content should be more specific to the context of the daily lives of tailors.

Defining low literacy and financial literacy

Low-literate

Low literacy means the individual computes or solves problems, reads, writes, or speaks at or below the 8th-grade level or is unable to compute or solve problems, read, write, or speak at a level necessary to function on the job, in the individual's family, or society.

People with low literacy skills may not be able to read a book or newspaper, understand road signs or price labels, make sense of a bus or train timetable, fill out a form, read instructions on medicines or use the internet.

[10] Defines low-literate users as people whose education is equal or more than Standard Four and less than or equal to Standard 10th in the Indian State education system.

The participants of tailoring classes of ASHA NGO satisfy this education criterion.

What financial literacy includes?

As mentioned earlier in the introduction, People are financially literate if people can organise the money they have to meet future goals through effective money management. Some of the specific sets of skills to be financially literate include having some financial goal, conscious spending, saving and investing money to balance inflation.

Redefining the content

Considering the feedback from a jury to make the content selection more contextual to the daily lives of women tailor, One more attempt has been given to redefining the content.

The following are the topic considered

Financial goals - what is the financial goal, Types of financial goals, Examples of financial goals, How to decide on a financial goal

Record keeping - What is record keeping, the importance of record keeping, Creating a system for record-keeping

Budgeting - What is budgeting? Why budgeting is important? Hands-on experience in creating budgets.

Small business Loan - Ways to get small business loans amounting to 10000- 20000 rs.

Pricing standardization - Why pricing standardization is needed, how it will benefit them, deciding prices of items they stitch and creating posters of items and prices for a shop.

Online transaction - step-by-step Process of opening google pay, phonepe and Paytm accounts.
How to transfer money, and use QR codes to receive money.

Small investment - What is an investment, Why whether an investment is necessary, and where they can invest?

ATM and cash deposit machine use - Step-by-step procedure for cash withdrawal and cash deposit.

Bank accounts - Types of bank accounts, and what bank account you should choose.

Other saving methods - What are the other saving methods?

Prioritizing the content

Prioritization has been done based on the relevance of the concept in the user's daily life,

Primary priority topic

Financial goals - What is the financial goal, Types of financial goals, Examples of financial goals, and How to decide on a financial goal

Record keeping - What is record keeping, the importance record keeping, Creating a system for record-keeping

Budgeting - What is budgeting? Why budgeting is important? Hands-on experience in creating budgets.

Online transactions - step-by-step Process of opening google pay, phonepe and Paytm accounts?
How to transfer money, and use QR codes to receive money.

Small investment - What is an investment, Why whether an investment is necessary, and where they can invest?

Secondary priority topics

ATM and cash deposit machine use - Step-by-step procedure for cash withdrawal and cash deposit.

Bank accounts - Types of bank accounts, and what bank account you should choose.

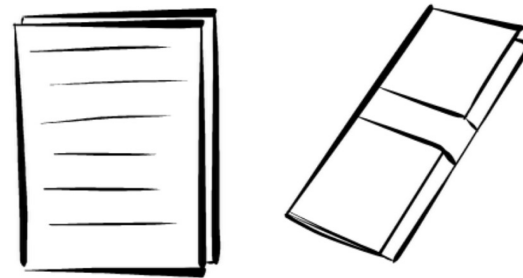
Other saving methods - What are the other saving methods?

Revisiting Ideation

Earlier the ideation was at the initial level. The bottom-up approach was taken to think about ideas for individual topics and then fit them into the overall product. In the next phase, an attempt has given to concretize the overall deliverables and then detailing out the ideas. The following are some of the concrete ideas for final deliverables.

Idea 1: Lesson plan+Toolkit

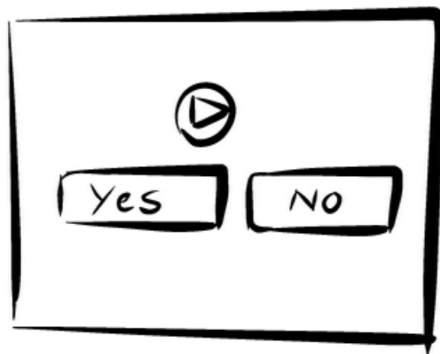
As previously mentioned, designing the workshop would be an appropriate approach. Basic concepts such as establishing financial objectives, budgeting, etc., require both theoretical knowledge and practical experience. Therefore, a lesson plan can be developed based on experiential learning theory and Kolb's model of action learning. Kolb's model comprises four stages of learning, where the learner initiates with a tangible experience that can be introduced in the classroom by discussing prior experiences, an activity, or a narrative. Next, reflective observation follows, where learners ponder over their experiences. Abstract conceptualization is the subsequent stage where learners are introduced to concrete concepts. Finally, in the last stage, learners actively experiment with the knowledge they gained through the sessions.



Idea 2: Interactive Narratives

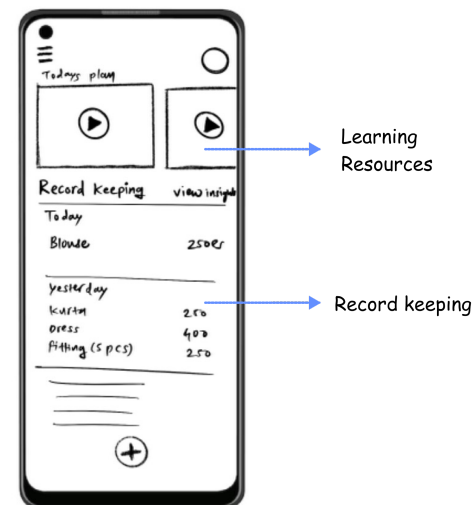
In adult learning, storytelling can serve several purposes: capturing attention, contextualizing information, facilitating retention, promoting empathy, and fostering critical thinking. Stories can help grab and hold learners' attention, provide a framework for understanding and remembering information, develop empathy and understanding for others, and encourage problem-solving and analysis.

By using relatable narratives featuring a female tailor, everyday scenarios encountered by learners can be used to teach concepts. To make the learning experience more interesting, participants can be prompted to make decisions that impact the outcome of the story. The delivery mode can be interactive storybooks or videos.



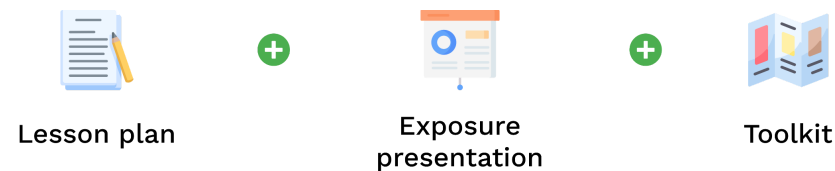
Idea 3: Mobile application

The development of a mobile application that offers educational materials such as articles, videos, and audio is essential for understanding financial concepts like setting financial goals and budgeting. The application will also simplify record-keeping, budgeting, and data analysis by incorporating features such as a digital record-keeping system, auto-budgeting, and investment recommendations. The concept was inspired by the HealthifyMe application



Final Design Idea

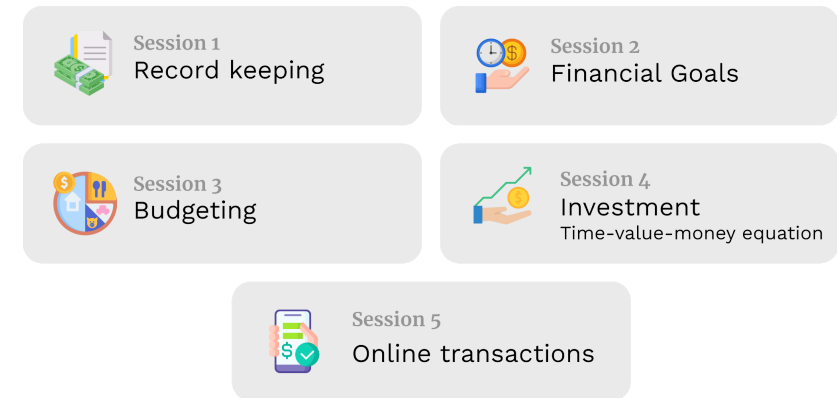
Considering the context of NGO and the proficiency level of low-literate users Idea 1: Lesson plan + Tool kit will be carried forward. Though Idea 2: Interactive narrative can be used to create a concrete experience for the learners. The final design will have three components **A) Lesson plan** - facilitators guide to conduct sessions **B) Exposure Presentation** - Teaching aid designed to help the facilitator explain concepts and conduct classroom activities **C) Toolkit** - Compilation of all the worksheets and activity materials.



Assembling Content

The set of 5 topics is to be split across 5 sessions. Each session will have some initial activity or content exposure to create an experience which will be followed by discussions,

exposure presentation and active experimentation of the knowledge gained. The diagram below represents the distribution of the topics among sessions.



The next step was detailing the topics and deciding on the inside content of individual topics. The content of the individual topic has been divided into three categories such as conceptual, procedural and factual. The following image shows the distribution of inside content:

Topics	Conceptual	Procedural	Factual
 Session 1 Financial Goals	How to set on a financial goal.		What is the financial goal, Types of financial goals, Examples of financial goals
 Session 2 Record keeping	Importance of record keeping	Creating a system for record-keeping	What is record keeping
 Session 3 Budgeting	What is budgeting? Why budgeting is important?	Creating Budget	
 Session 4 Investment Time-value-money equation	What is an investment, Why investment is necessary?	Where they can invest?	
 Session 5 Online transactions		Process of opening gpay, phonepe and Paytm accounts. How to transfer money, and use QR codes to receive money.	
 Session 6 Small business loans			Low risk investments and ways to get small loans.

Learning Objectives

To frame the learning objectives, the ABCD format was chosen, as this subject isn't purely skill-based, but also tries to achieve a shift in attitude.

Primary learning objectives

By the end of the module, students must be able to

Summarize Why we need financial planning?

Apply Financial planning strategies in different scenarios.

Think holistically, suggest changes to existing financial scenarios and judge the potential consequences of each decision.

Analyze the difference between a life with financial planning and a life without financial planning

The desired attitude shifts

- Able to realise the role of financial planning to shape their future.
- Motivated towards investing money.
- Motivated towards conscious buying

Design

Visual Design

Colour Scheme and Font:

The following colours are chosen considering the context of women's empowerment.



Mukta has been used to maintain consistency in the content in Marathi and English.

Mukta

Heading 1 | 96px

Heading 2 | 64px

Text | 48px

Character design of Lata and Radha

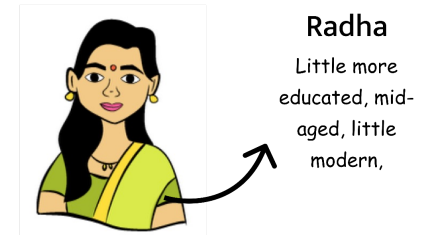
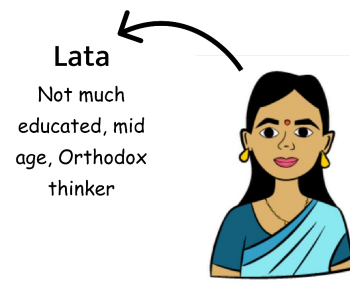
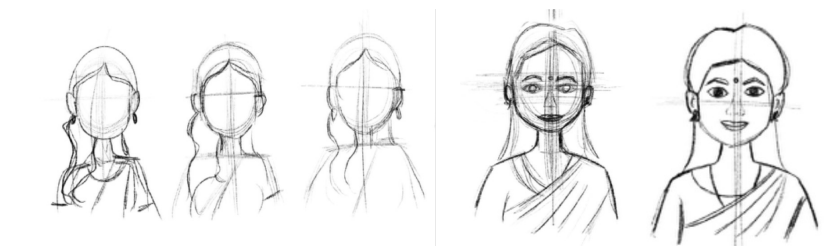
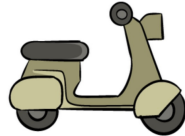
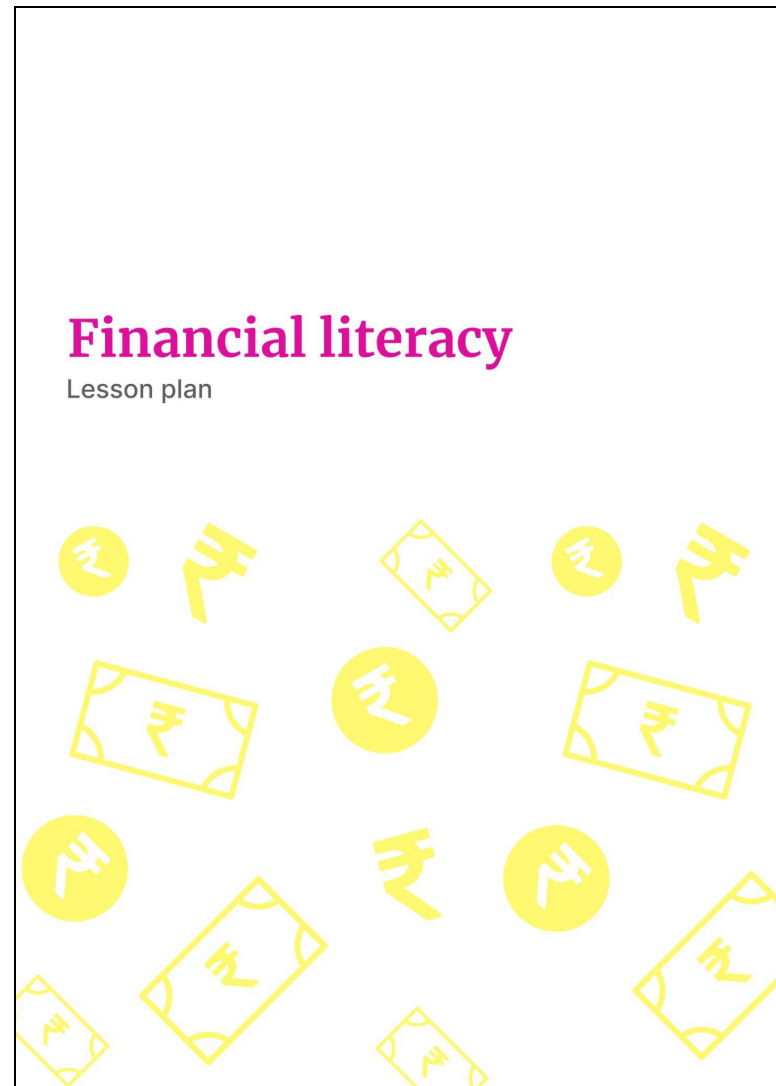


Illustration styles for icons



A) Lesson Plan

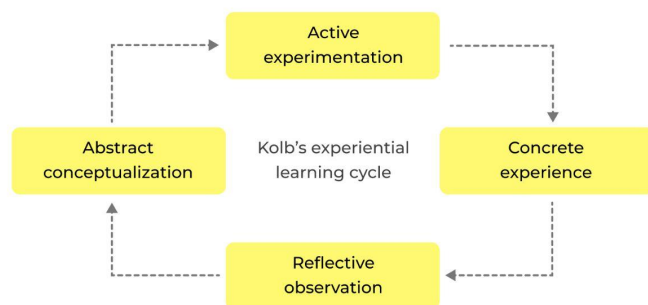
The lesson plan has been designed using Kolb's model of experiential learning, which incorporates four stages: concrete experience, reflective observation, abstract conceptualization, and active experimentation. The lesson plan is accessible through a this [link](#). A preview of a few pages from the lesson plan is displayed here.



First Page

Kolb's Experiential learning cycle

The experiential learning cycle introduced by David Kolb in 1984, contains a four-stage of learning and four separate learning styles. Effective learning is seen when a learner progresses through a cycle of four stages. Firstly the learner has a **concrete experience**, which could be a new experience or situation or reinterpretation of an existing experience in the light of new concepts. The learner then **observes** and reflects on that experience leading to them forming **abstract concepts** or modification of existing concepts. The learner finally applies what they understood and conducts **experiments**, resulting in new experiences.



Session plan

Record keeping What is record keeping, the importance of record keeping, Creating a system for record-keeping	Financial Goal What is the financial goal, Types of financial goals, Examples of financial goals, and How to decide on a financial goal	Budgeting What is budgeting? Why budgeting is important? Hands-on experience in creating budgets.	Small investment What is an investment, Why whether an investment is necessary, and where they can invest?	Online transaction step-by-step Process of opening google pay, Phonepe and Paytm accounts. How to transfer money, and use QR codes to receive money.
Session 2	Session 1	Session 3	Session 4	Session 5

Session 2 | Record keeping

Session time : 1 hr

Learning Objective

By the end of the sessions participants must be able to

- **Habituated** toward record keeping
- **Analyze** What is need and want
- **Articulate** Importance of Record keeping

Events	Materials	Duration
Introduction Get the participants to settle and start the session by talking about the course, what it is course about. What they are		5 Min

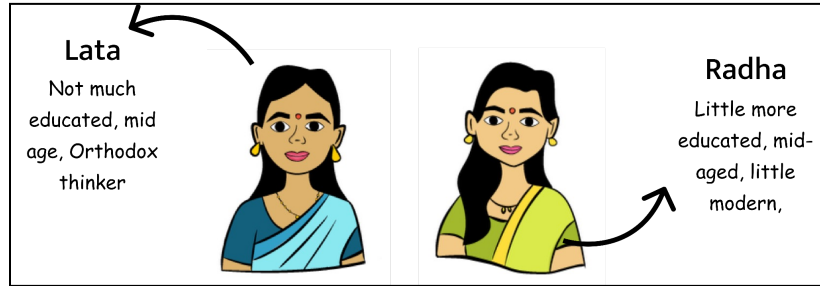
Lesson plan format

Each lesson plan includes session-specific learning objectives for the session, a sequence of activities to be conducted, a list of materials required for the activities, and the allocated duration for each event.

Some of the components of the lesson plan are as follows:

1. stories - Stories will be introduced to create a concrete experience for the learners. Stories have two characters Lata and her friend Radha. The story will tell some situations that arise due to poor financial management in Lata's life and how Radha helped her to solve the problems. Every story aims to convey the difference in daily lives situation because of the practice of financial concepts

which ultimately communicate the importance of that concepts and what difference it will create in their lives.



Character design

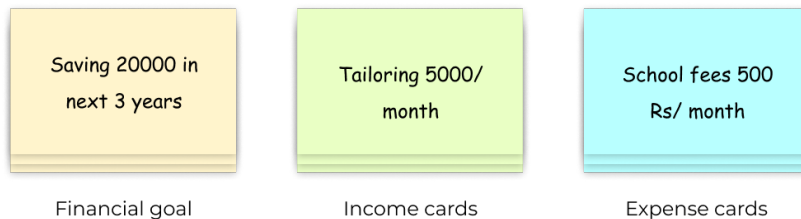
Financial goal setting is about Visualizing future needs and saving money from today. Following is the story introduced in the financial goal session to explain the importance of the financial goal.



Story Board.

2. Activities - Not every concrete experience can be created with just a story. Some can be paired up with activities also. Activities can be used for concrete experience as well as active experimentation of the concepts. Through the activities, different applications of the concepts in different scenarios can be explored.

E.g The process of budgeting involves organizing and assigning priorities to expenses to effectively manage finances. To accomplish this, a simple activity can be introduced where participants are provided with task cards containing expense, income, and financial goal cards. They are then instructed to select three income cards and one financial goal card and prioritize their expenses based on the chosen income amount. Participants are encouraged to calculate their income, determine how much they should spend and save, and make decisions accordingly.



B) Exposure Presentation

Exposure presentations served as a teaching aid to help the facilitator conduct sessions. The exposure presentation consists of content to explain the concepts and steps to complete the activity.

The presentation is kept lightweight with minimal text, as some centres which do not have facilities to share a presentation could print out slides and show them to students.

The Marathi language is used for the exposure presentation as a majority of participants are comfortable with Marathi.

You can access the exposure presentations [here](#). Some of the sample exposure slides are given below:



एक छोटासा वर्ग उपक्रम

आर्थिक उद्दिष्टांमधून एक कार्ड आणि उत्पन्न कार्डातून दोन कार्ड निवडा. उत्पन्नाच्या अनुसार आर्थिक उद्दिष्टे साध्य करण्यासाठी खर्चाच्या कार्डस मधून कोणते खर्च तुम्ही करणार आणि कुठले टाळणार ते ठरवा.

आर्थिक ध्येय

मुलीच्या लग्नासाठी 50000 रुपयांची बचत

उत्पन्न कार्ड

टेलरिंग शॉप 5000 रु/ महिना

खर्चाची कार्डे

गॅस सिलेंडर 900 रुपये/महिना

उत्पन्न आणि खर्चाचा हिशेब म्हणजे काय?

“ तुमच्या दैनंदिन आर्थिक व्यवहारांचा पावत्या बिले , बँक स्टेटमेंट आणि गुंतवणूक स्टेटमेंट सहित अचूक रेकॉर्ड ठेवणे ”

उत्पन्न आणि खर्चाचा हिशेब कसा ठेवणार ?

● जाणारे पैसे

कुटुंबासाठी	स्वतःसाठी	व्यवसायासाठी
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____
₹ _____	₹ _____	₹ _____

C) Toolkit

The skeleton of the tool kit was initially created, with a similar format to the exposure presentation. It contained stories, worksheets and material needed for an activity. Session wise final contents of the toolkit are as follows:

Record keeping: Story of Lata, Record keeping a calendar, set of stickers,

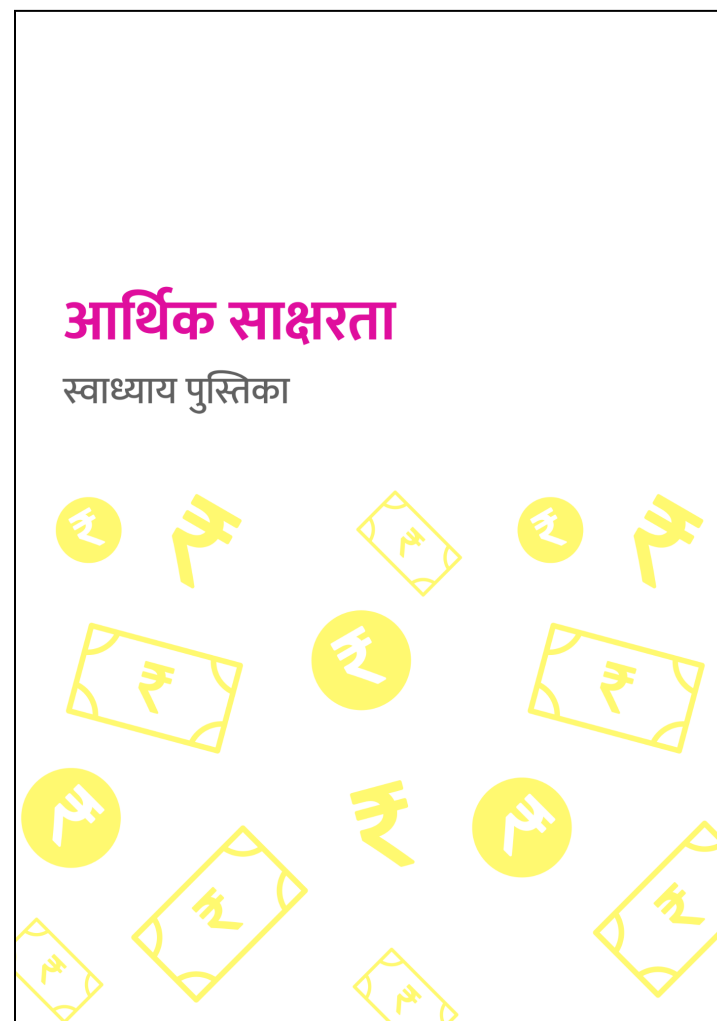
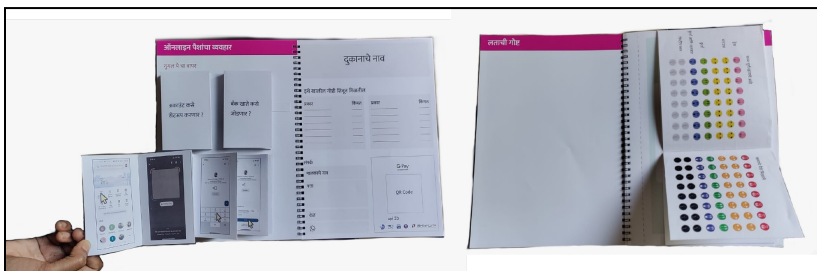
Financial Goal: Story of Lata, worksheet to decide the financial goal,

Budgeting: Task cards, Envelops to categorise the expenses, worksheets to do budgeting, envelops to segregate money.

Online transactions: Pricing poster template

Investment: Story of Lata,

Some of the sample images of the Tool kit are as follows:



Front cover of tool kit

Record keeping:

1) Story Board

The section on record keeping begins with a narrative featuring Lata, which illustrates the challenges she encounters and how record keeping can assist her in resolving these issues.



Story board for record-keeping session

2) Calender-based record keeping system

The record-keeping system is designed in a calendar format, taking into consideration the traditional practice of women writing financial notes on calendars. The calendar-based design of the record-keeping section aims to streamline the process, enhance visual clarity, and facilitate effective financial management in the context of a tailoring business. The design aims to achieve the following objectives:

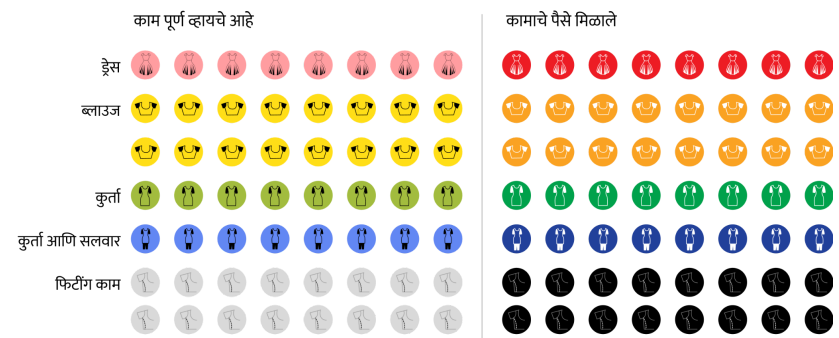
1. Simplify the process of record keeping: The calendar-based design is intended to make the record-keeping process more straightforward and user-friendly for the target audience.
2. Enable color-coded visualization: The design allows for the visualization of income and expenses through the use of different colors. This feature assists women engaged in tailoring businesses to easily identify and distinguish different products through money incoming and outgoing transactions.



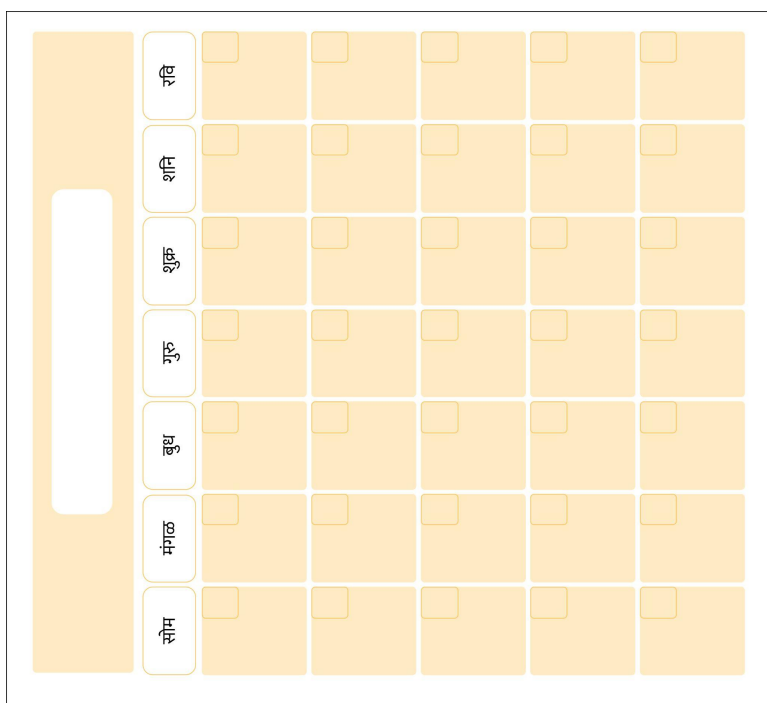
Record keeping a calendar for income

The income calendar is distinguished by its green color and is accompanied by a strip of color-coded stickers. These stickers serve two main categories: 1) orders received, and 2) orders that have been completed and payment has been received. This system allows users to not only track their orders but also facilitates work management.

There are five different types of stickers that correspond to various products they stitch, namely dresses, blouses, kurtas, kurta sets, and fitting work. Light-colored stickers are used when orders are received, while darker stickers indicate that payment has been received for the order. This visual differentiation helps users easily identify the status of each order on the calendar.



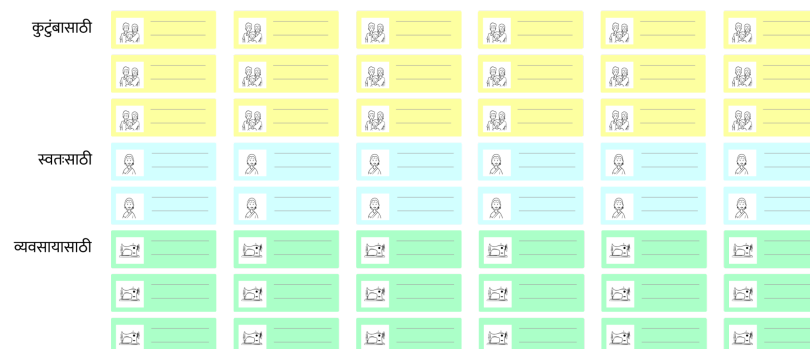
Stickers for record keeping of incoming money



Record keeping a calendar for expenses

The expenses calendar is designated by its orange color and is accompanied by an additional sticker strip. This strip consists of three distinct categories of expenses: 1) expenses for the family, 2) expenses for oneself, and 3) expenses related to tailoring work. The purpose of these categories is to create awareness among users about their spending habits and to promote the notion of allocating funds for personal needs. By visually representing the distribution of expenses across these categories, the design

encourages users to consider their own well-being and foster the aspiration of eventually treating themselves to something special.



Stickers for Record keeping calender for expenses

Financial Goal:

1) Story Board

The session on financial goals commences with a story about Lata, wherein her friend Radha explains the importance of having a financial goal and how it assists in effectively managing expenses in a systematic manner.



Storyboard for financial goal

2) Financial goal worksheet

The financial goal worksheet includes a table where participants are required to list their desired financial achievements. The columns in the table guide participants to make their financial goals specific, assess their achievability, determine if they are needs or wants, and calculate the monthly savings required to reach those goals. Essentially, the table provides a framework for participants to consider various factors when deciding on specific, achievable, and relevant financial goals.

अ. आर्थिक ध्येय लिहा		ब. त्यासाठी किती पैसे लागणार?	
इ. किती वर्ष	फ. महिन्याला लागणारी बचत	ड. गरज की इच्छा	क. स्वतःसाठी कुटुंबासाठी की शिवणकामासाठी

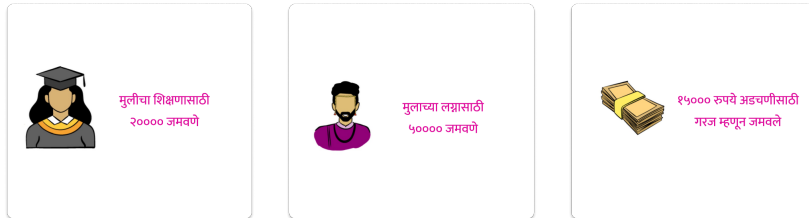
Worksheet for financial goal

Budgeting:

1) Card game activity

The budgeting session starts with the card activity where participants have to prioritize the expenses depending on the income and financial goal chosen. Sample cards are displayed here below :

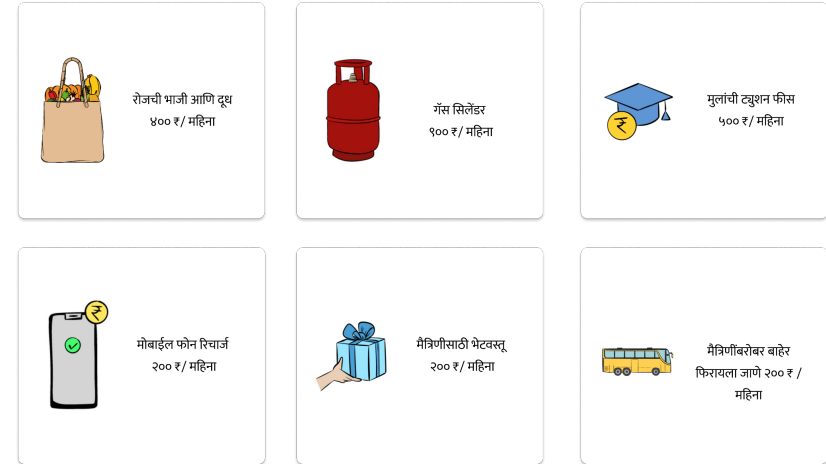
Financial Goal Cards



Income Cards



Expense Cards



2) Budgeting Worksheet

Later in the session, a 50-30-20 rule for budgeting will be introduced. The tool kit consists of worksheets which guide the participants to segregate the money for specific needs.

बजेटिंग करणे

तुमचे महिन्याचे उत्पन्न किती ?

महिन्याचे एकूण उत्पन्न _____

खर्चाचे वर्गीकरण कसे करणार ?

2. उत्पन्न आणि खर्चाच्या हिशेबातून स्टिकर्स काढा आणि वेगवेगळ्या लिफाफ्यांमध्ये त्यांचे वर्गीकरण करा

खर्चाच्या प्रकाराची काही उदाहरणे उदाहरणे : बिल, घर खर्च , कपडे, दवाखाना, कर्ज, मुलांचे, शिक्षण, स्वतःसाठी खर्च, शिवणकाम , इतर खर्च , प्रवास, नातेवाईकांसाठी खर्च, सणांचा खर्च

छोट्या लिफाफ्यांचा वापर कसा करणार ?

3. प्रत्येक लिफाफा मध्ये असणाऱ्या खर्चाची एकूण रक्कम लिफाफ्यावरती लिहा

घरखर्च खर्चाच्या प्रकाराचे नाव
५०० रुपये खर्च

बजेटिंग करणे

५०-३०-२० फॉर्मूला ओळख

५०%: आवश्यक आणि मूलभूत गरजांसाठी वापरा (आवश्यक खर्च)

एकूण उत्पन्न _____ X 0.5 = _____

३०%: रेस्टॉरंट भेटींसाठी, सहलीसाठी इ. (हौस आणि मौजमजा)

एकूण उत्पन्न _____ X 0.3 = _____

२०%: बचत आणि कर्जफेडण्यासाठी

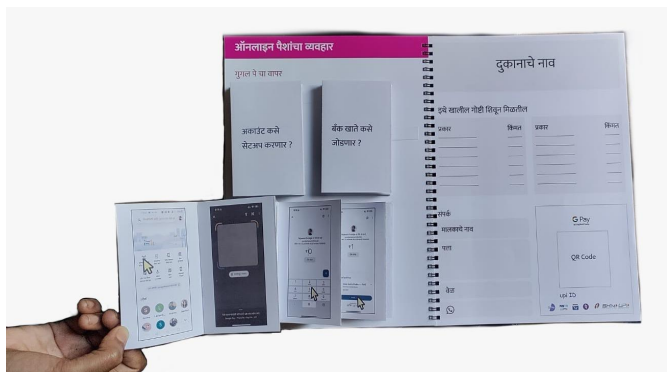
एकूण उत्पन्न _____ X 0.2 = _____

पैश्याच्या वर्गीकरणासाठी दिलेले लिफाफे वापरा.

Online Transaction:

1) Google Pay procedure

During the user study, a significant number of participants expressed their interest in learning how to use Google Pay. As a result, a dedicated session on Google Pay has been included in the toolkit. The toolkit provides a comprehensive guide with a step-by-step procedure for setting up an account, linking a bank account, and conducting transactions such as sending money using mobile numbers and QR codes. This information is presented in a user-friendly format, organized in a foldable pamphlet for easy reference.



Piano folds for step-by-step procedure

2) Create pricing poster -Activity

The toolkit includes an activity that involves creating a pricing poster for participants' shops, where they can affix their payment QR code. This hands-on experience allows participants to gain practical knowledge and make informed decisions about setting standard prices for their products.

इथे खालील गोष्टी शिवून मिळतील			
प्रकार	किमत	प्रकार	किमत

संपर्क	
पत्ता	
वेळ	

UPI ID

QR Code

UPI ID

UPI ID

UPI ID

UPI ID

UPI ID

UPI ID

UPI ID

UPI ID

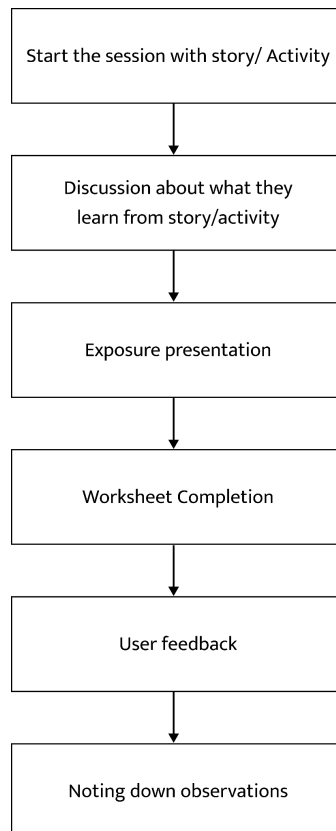
Pricing poster template

Evaluation

Evaluation has been conducted in two phases 1) User testing 2) Expert review

User Testing :

User testing Protocol :

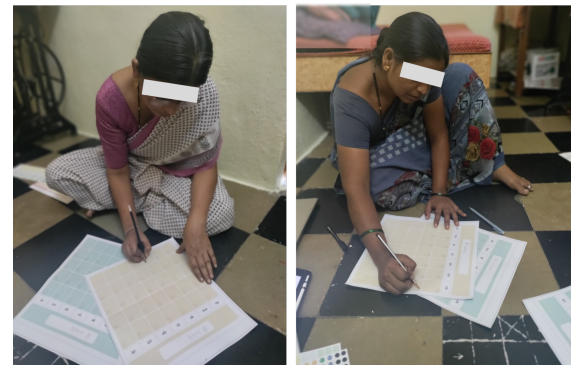


Ideally, the way forward for the evaluation would have to get a facilitator to understand the material and deliver it to a class of Participants over 6 weeks, 1 hour per week, to observe how participants react to the lesson plan. Due to the unavailability of participants and classroom setup, every day one session has been evaluated with participants as per the lesson plan. Session specific learning goals are considered as an evaluation as a goal.

Overall evaluation objectives:

- To judge the awareness about financial concept
- To judge the usability of the materials (worksheet, activities, exposure presentation)

Session 1 | Record keeping



Findings

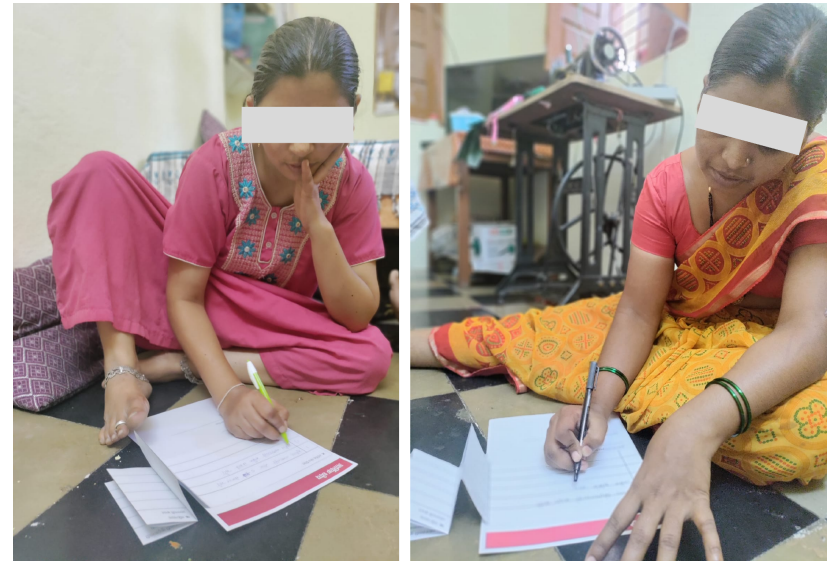
- The participants experienced confusion with the horizontal layout used for calendar-based record keeping, as they were more accustomed to the vertical arrangement commonly found in Marathi calendars.
- Participants expressed discomfort with the practice of hanging the calendar on a wall. They felt uneasy about this as they believed that information related to finances should be kept private.
- The income calendar focuses only on basic-level products, and corresponding stickers have been created for those items. However, it is possible to introduce different patterns of products for participants who possess advanced skills. Additionally, the calendar currently only takes into account income from the tailoring business, without considering any other potential sources of income.

User feedback

- While the approach of calendar based record keeping may be beneficial, I have concerns about displaying personal financial information on a wall.

- “ I like the method, I can directly see and try to keep the balance between income and expense “

Session 2 | Financial Goal



Findings

- Initially, the calculation aspect posed some difficulty for them. However, once they grasped the concept, they were able to handle the remaining calculations with the assistance of a calculator.
- The participants successfully completed the assigned task following the instructions given.

However, it would be beneficial to have a more detailed lesson plan that includes explicit guidance on what participants should specifically focus on and how they should be guided.

- The participants encountered difficulty in comprehending the column label "monthly saving" in one particular instance. They mistakenly interpreted it as referring to monthly income. Therefore, it is necessary to provide further clarification in such areas to avoid confusion.
- The participants successfully followed the step-by-step process and managed to determine their financial goal.

User Feedback

- Typically, we have a general idea of our future needs but do not specifically save for specific expenses. Instead, we save money in general and utilize it as needed, which can sometimes result in insufficient funds for specific purposes. By adopting this financial goal-setting approach, we can save the precise amount of money required for each specific future need.

Session 3 | Budgeting

As the actual expense data was not available the session has been conducted with card activity created using dummy expenses data.



Findings

- The participants successfully completed the card activity and found it enjoyable. However, during the process of sorting expenses, they did not prioritize their own expenses, despite being able to easily achieve their financial goal.
- After gaining an understanding of budgeting, they have chosen to prioritize certain expenses, like the parlor, when redoing the activity.

User feedback

- The participants demonstrated a keen interest in implementing the budgeting techniques for their real-life financial management.

Session 4 | Investment

- The participants were actively involved in the narrative and, by the end, demonstrated their ability to express the significance of investment.

User Feedback

- One participant remarked that they would no longer contribute money to a Bhishi (informal savings group) since they realized there would be no additional funds over time. Instead, they expressed their intention to open a post office Recurring Deposit (RD) account.

Session 5 | Online Transaction

- During an activity session where participants had to guess the function of a feature based on its name, three out of six features were correctly guessed by the participants.

- Participants became disinterested in the account setup process over time due to its prolonged duration.
- The instructions provided in the piano folds were beneficial as they enabled the participants to easily follow the steps and successfully send money to another person.
- Through session It is observed that more explanation needed on what is UPI PIN, QR code etc.

User Feedback

- Both individuals were enthusiastic about transferring money to others, finding the process intriguing. They were excited to give it a try.

Expert Review

A meeting has been arranged with Chaitanya Nadkarni, an experienced professional working in the Fintech industry for low-literate users for several decades.

Following are the comments and suggestions given by Mr. Chaitanya Nadkarni :

- The project seems to be thorough and carefully planned. However, it is necessary to reconsider how to reduce the amount of writing involved. One suggestion is to use fill-in-the-blank style interactions, which would provide users with guidance for their thinking process and require less effort in writing. This approach would increase user engagement by minimizing the writing burden.
- To simplify budgeting for this user group, who have limited expenses, I could have provided predefined expense categories. This approach would reduce the cognitive load of having to think about categories and make the budgeting process easier for them.
- In the evaluation stage, it is beneficial to calculate task time, which aids in comparing different design iterations. This approach enables effective analysis and comparison of the design's performance across iterations.

Future Work

- Though the language and stories used for the exposure presentation is marathi, but both stories and language c can be more contextualize.
- As recommended by the expert, it is worth reconsidering how we can minimize the writing effort.
- For this project, I have assembled all the activity materials into an exercise book. There is potential to explore additional options and iterate on the design to make it more interactive.

References

- [1] Atkinson, A. and F. Messy (2012), "Measuring Financial Literacy: Results of the OECD / International Network on Financial Education (INFE) Pilot Study", OECD Working Papers on Finance, Insurance and Private Pensions, No. 15, OECD Publishing, Paris,
<https://doi.org/10.1787/5k9csfs90fr4-en>.
- [2] Puneet Bhushan, Yajulu Medury (2013), "Financial Literacy and its Determinants", International Association of Scientific Innovation and Research,
https://www.researchgate.net/publication/264355562_Financial_literacy_and_its_determinants
- [3] a survey conducted by National Strategy for Financial Education (NSFE) in 2019
<https://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=1156#C6>
- [4] Nishita Nirmal, Nirnay_A Financial Board Game for Women with Low-literacy in Pune (2021)
https://drive.google.com/file/d/1zXN5-zPvJlAWQdrCHDFQpqNBmaxwKrxz/view?usp=share_link
- [5] Harshit Sathija, Insti life_A Purposeful game design for Financial awareness for First-year college students (2021)
https://drive.google.com/file/d/1LoFnmNlSkJqrbh5PZ5EdNXFIIMeb4WI/view?usp=share_link
- [6] Shivangi Daffinie, We Farm_Financial Literacy tabletop game for school students of class 8th (2022)
https://drive.google.com/file/d/1-JwOi7c5i2205Kibi_8vY70MOEP0ANNV/view?usp=share_link
- [7] Dheeraj Dethe, A tool to assist financial record-keeping for farmers in Vidarbha (2020)
https://drive.google.com/file/d/1BzlG6RgCDhqXu8fk2b2O3jN7DJm6fw_-/view?usp=share_link
- [8] Manasi Mankad, Menopause Awareness and Management Among Indian Women of Low to Middle-Income Groups (2018)
https://drive.google.com/file/d/1J9Dyit8GSP2Kxj1VRJ-oolmdFx2Gsj_W/view?usp=share_link
- [9] Nishita Nirmal, A Qualitative Study of Low-literate Women's Financial behavior in suburban Pune (2021)
https://drive.google.com/file/d/1Tal1ThaWanyagseQHVfSR e7uP34SpSo/view?usp=share_link

[10] Aniruddha Joshi, Pankaj Doke_MobilePhone usage by low-literate users (2015)
https://www.researchgate.net/publication/301451322_Mobile_Phone_Usage_by_Low_Literate_Users