MIANATRA

(Innovative and Interactive Malagasy Card Game for Madagascar Children)

"To learn"

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MIANATRA
ABIDY

01

INTRODUCTION

Design Thinking Process No. 1)
Empathize: Understanding the users

Malagasy

- **Endangered languages in Ivory Coast and Botswana (ex: Baoulé, Sénoufo)**
- **French > Malagasy by younger Gen in Madagascar**

- **SDG 4.6 Eliminate All Discrimination in Education**
- **SDG 4.7 Education for Sustainable Development and Global Citizenship**
  - **Appreciation of Cultural diversity**
  - **Sustainable development of the native language of Madagascar: Malagasy**

02

PROBLEM STATEMENT

Design Thinking Process No. 2 **Define**
Importance of the problem (Correlation with SDG4)
Why?
How might we?

PROBLEM STATEMENT

Teaching language

USERS: Children who do not know Malgasy

Foreign language

Low performance in education

CORRELATION BETWEEN THE LANGUAGE USED AT SCHOOL AND SDG4 INDICATORS

Comparative analysis between African countries who use a foreign language and Asian countries who use their native language at school

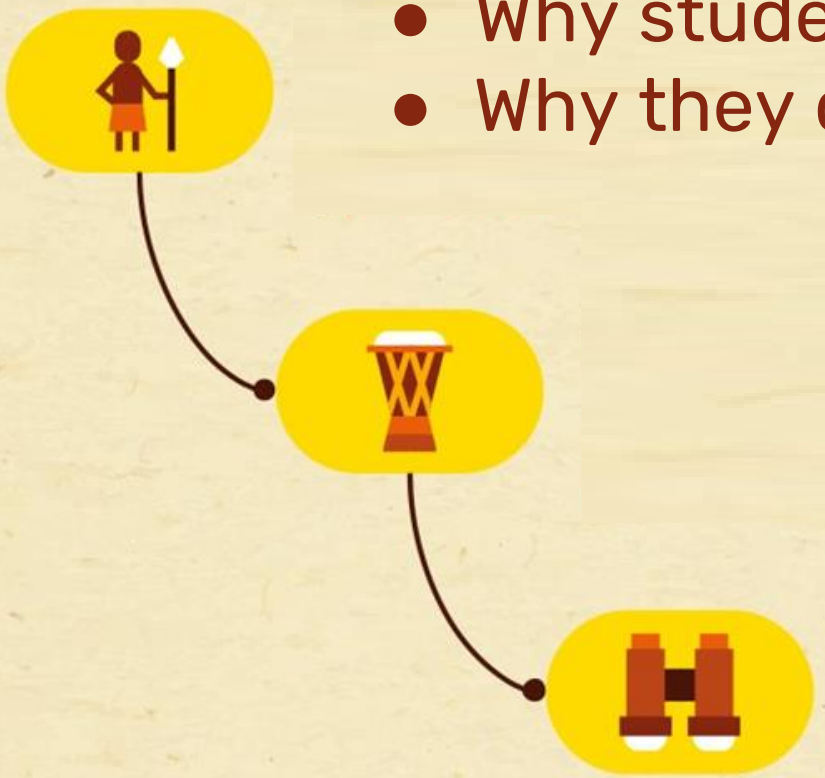
	AFRICA	ASIA
VARIABLES	**Independent variable: dummy (1: Foreign; 0: Native)**	
SDG4 SCORE	-0.013 (0.0006)	0.013 (-0.006)
LITERACY	-0.010 (0.0002)	0.011 (-0.42)
ELEMENTARY	-0.009 (0.008)	0.010 (-0.016)
PRIMARY	-0.010 (0.001)	0.010 (0.0012)
SECONDARY	-0.009 (0.006)	0.009 (0.008)

- *Software used:* **Stata**
- *Methodology:* **OLS** (Ordinary Least Square Model)
- *Control group:* Madagascar, Ivory Coast, Botswana
- *Treatment group:* South Korea, Indonesia, China
- *Source of data:* https://dashboards.sdgindex.org/

RESULTS

NEGATIVE CORRELATION BETWEEN LANGUAGE USED AT SCHOOL AND SDG4 INDICATORS IN AFRICA

WHY?



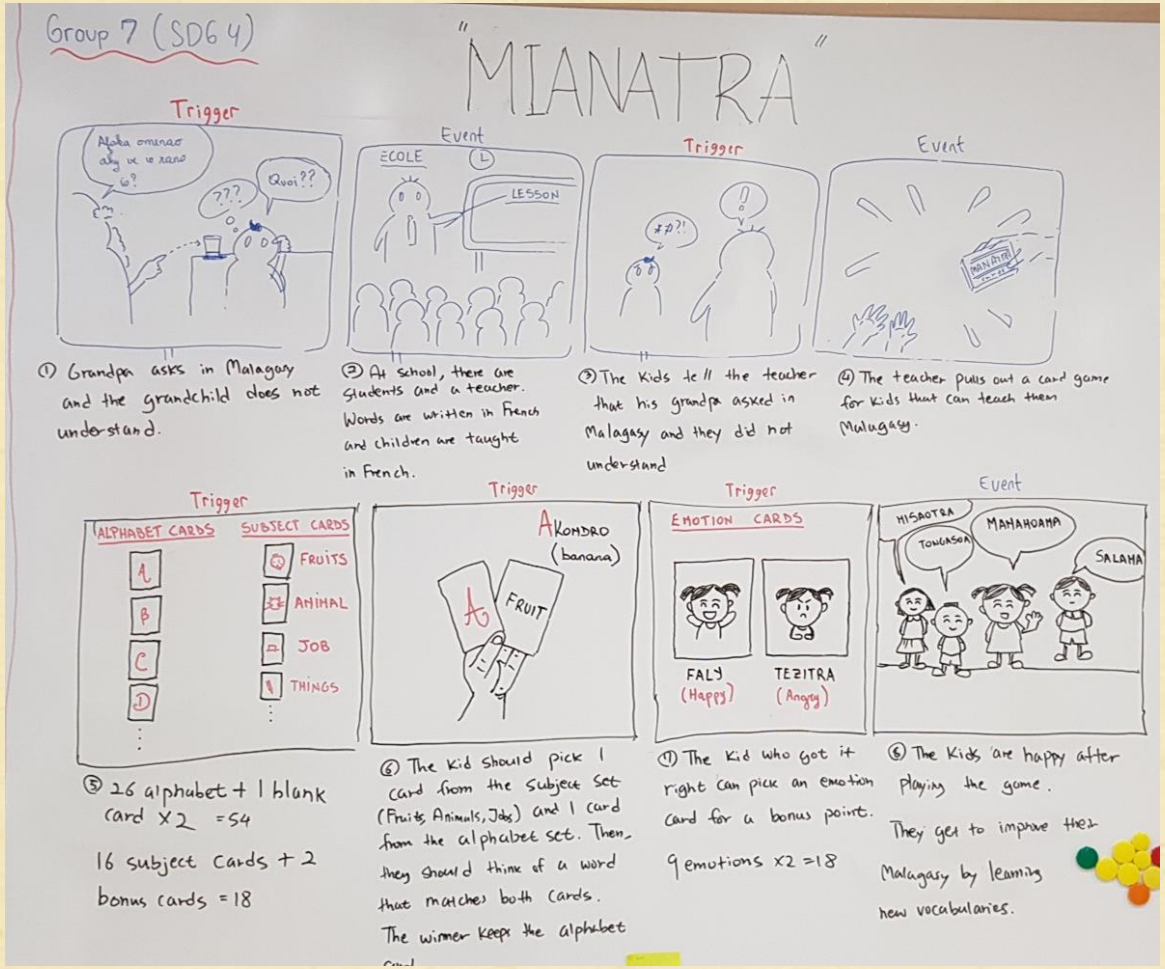
- Why students have to learn in a foreign language?
- Why they don’t value their native language?

- **Government policies**
- **Individual preference for a foreign language**
- **No incentives and interest of children to learn their native language**

….HOW MIGHT WE

ENCOURAGE CHILDREN TO BE MORE EXCITED TO LEARN THEIR NATIVE LANGUAGE?….

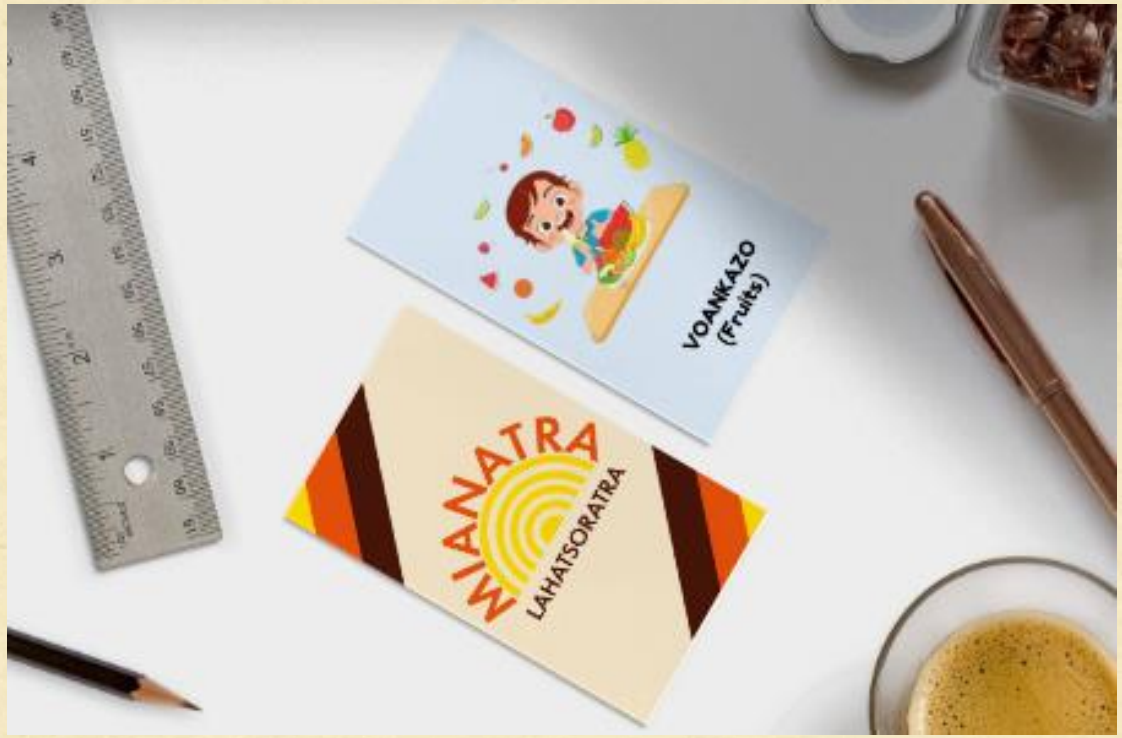
Prototype


Group 7 (SDG 4)
"MIANATRA"
Trigger
Event
Trigger
Event
ECOLE
LESSON
① Grandpa asks in Malagasy and the grandchild does not understand.
② At school, there are students and a teacher. Words are written in French and children are taught in French.
③ The kids tell the teacher that his grandpa asked in Malagasy and they did not understand
④ The teacher pulls out a card game for kids that can teach them Malagasy.
Trigger
Trigger
Trigger
Event
ALPHABET CARDS
SUBJECT CARDS
FRUITS
ANIMAL
JOB
THINGS
AKOMBRO (banana)
FRUIT
EMOTION CARDS
FALY (Happy)
TEZITRA (Angry)
HISAOTRA
TONGASOA
MAHAHOAMA
SALAHA
⑤ 26 alphabet + 1 blank card x2 = 54
16 subject cards + 2 bonus cards = 18
⑥ The kid should pick 1 card from the subject set (Fruits, Animals, Jobs) and 1 card from the alphabet set. Then, they should think of a word that matches both cards. The winner keeps the alphabet
⑦ The kid who got it right can pick an emotion card for a bonus point.
9 emotions x2 = 18
⑧ The kids are happy after playing the game.
They get to improve their Malagasy by learning new vocabularies.

A
MIANATRA
LAHATSORATRA

03

How to Play?



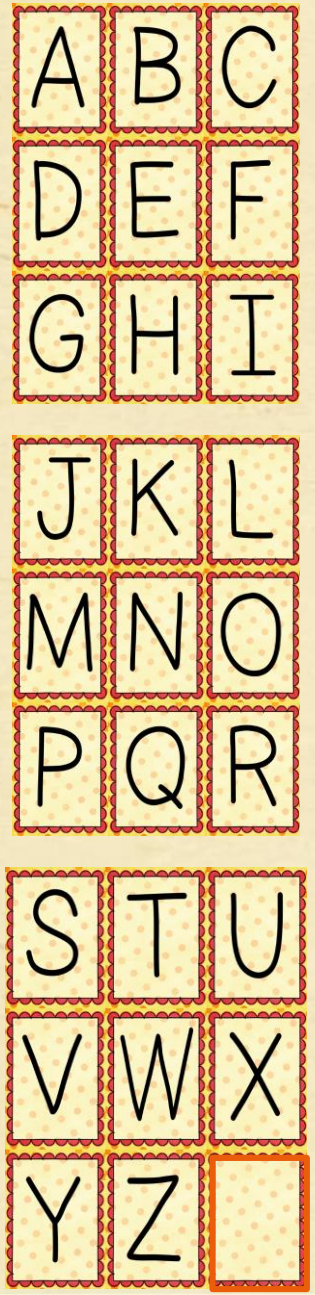
Design Thinking Process No. 3 & 4: **Ideate & Prototype**

26 Alphabet cards + 1 Blank Card x 2 = 54 alphabet cards

16 Subject Cards + 2 Bonus Cards = 18 Subject Cards

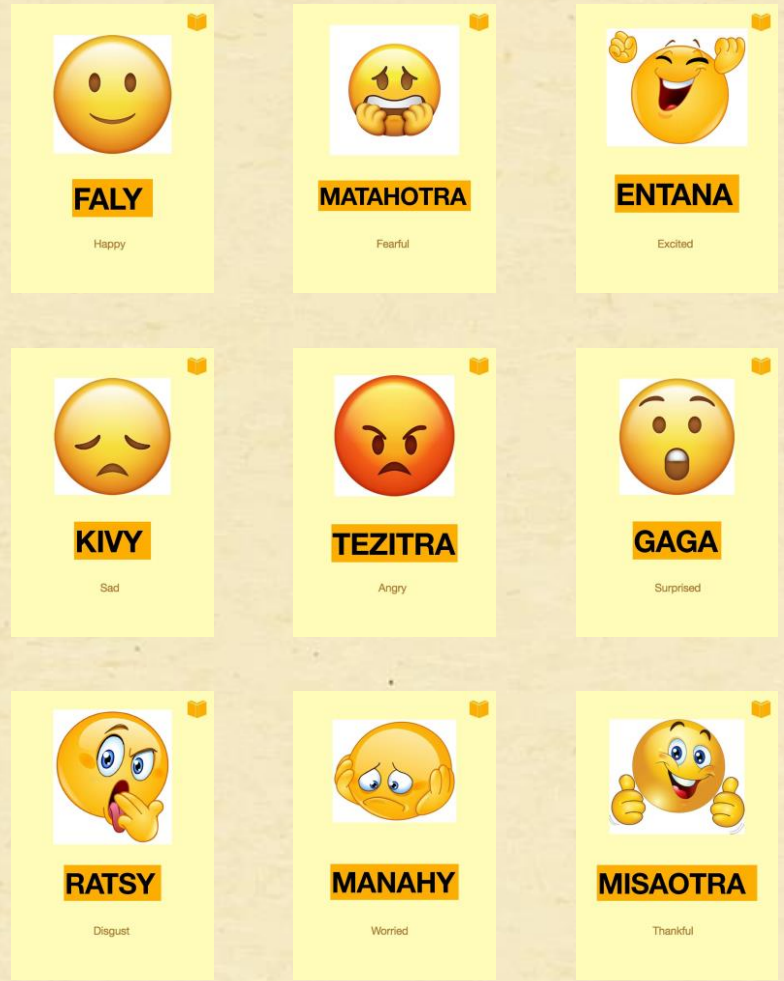
9 Emotion Cards x 2 = 18 Emotion cards

(26 Alphabet + 1 Blank Card) x2 = 52 Cards



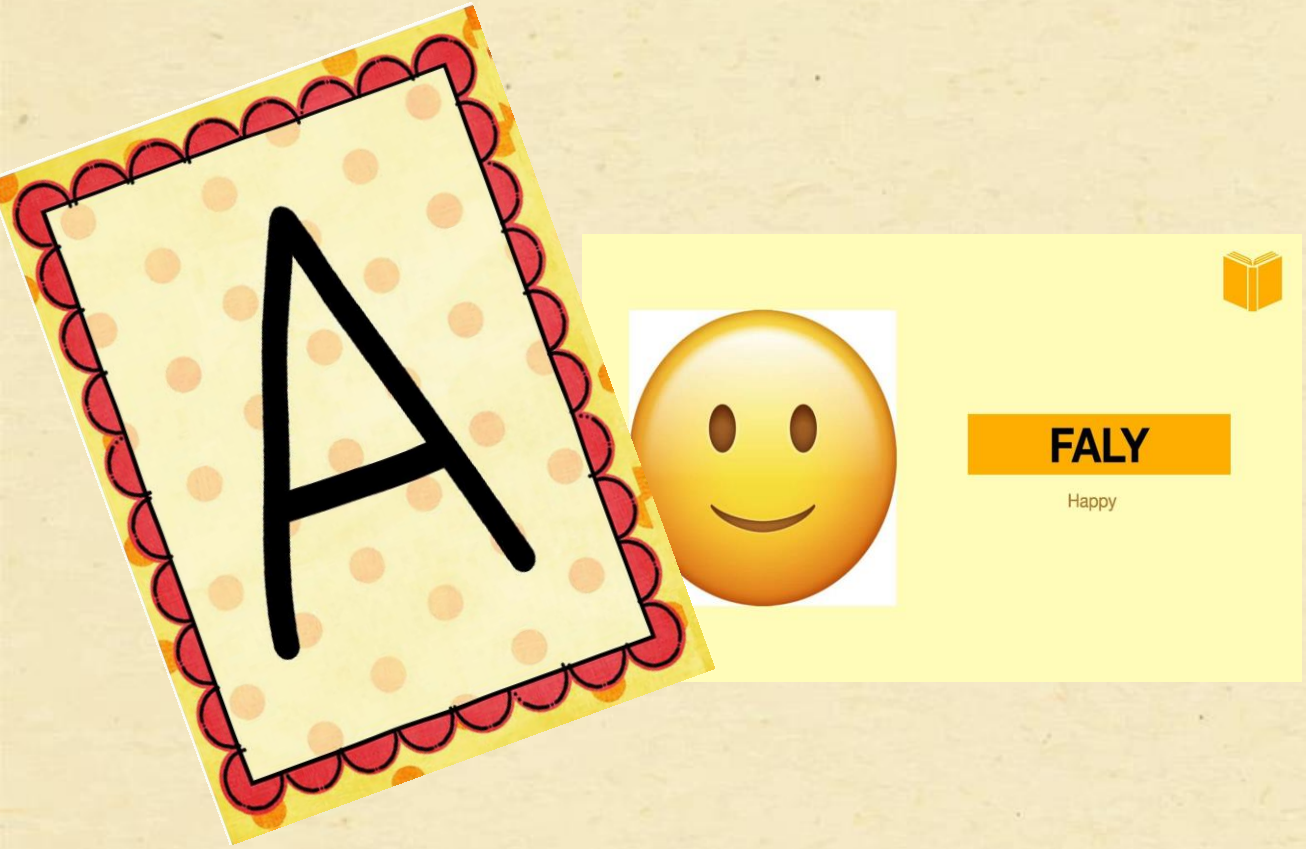
16 Subject Cards + 2 Bonus Cards = 18 Cards

9 Emotion Cards x 2 = 18 Cards



AKONDRO!
(Banana)

Challenge!



Faly aho mihinana akondro!
(Eating banana makes me happy!)

Alphabet 1 point + Emotion 1 point
= 2 points
Incorrect Answer = 0 point

04

Conclusion

Design Thinking Process No. 5 **Test**
Test Model and Expected Outcomes

Test Model

01

Pre-Survey

Parents, Teachers, and Children

02

Free Distribution of MIANATRA

Game played with parents and teachers

03

Post-Survey

Feedback and effectiveness

Achieving Practical Results of the Design Thinking Process

Technically Feasible/Plausible

Simple and straightforward

Economically Viable

Cheap to produce and maximization of efficiency

Desirable for the User

Fun, competitive, and enjoyable

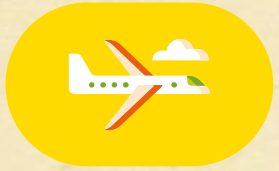
Expected Outcomes (indicators)

Closure of Generation Gap

Elimination of language barrier

Higher Achievements

Higher linguistic and academic achievements if children learn in their native language (Snow, 1990)
(Increase in primary and elementary school enrollment and achievement)



Compatible with SDG 4.5 & 4.7

Decrease in educational inequality (More literacy in Malagasy)
(Less out of school childrens (more excited to go to school)

National Unity & Preservation

Built through shared language and identity.
Saving Malagasy from becoming endangered.
(Increase of No. of Malagasy speakers)

Misaotra
Thank You