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Oyako: Promoting a Second Language for
Preschool Children and Parents at Home

Keio University
Graduate School of Media Design

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A Master's Thesis
submitted to Keio University Graduate School of Media Design
in partial fulfillment of the requirements for the degree of
MASTER of Media Design

Naomi Soledad Toue

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Oyako: Promoting a Second Language for Preschool Children and Parents at Home

Category: Design

Summary

Communication has always been an important skill for the human being. We are born and we learn to talk our native language. Nowadays the global paradigma shows how much important second languages are.

Current young generations have an advantage over adults.They have the chance of approaching a second language since early stages of life. It is also true that sometimes the first contact with a new language can be a traumatic experience to be considered "difficult".

Oyako is a digital toybook that has the premise of bringing second languages in a playful way to homes, not only for kids, but for the family. Through the audiovisual English stories, the toybook encourages children and parents to make their own drawings for those stories.

This research worked with a prototype that explored how children and parents, from Japanese families, could get closer to a second language in a creative and playful way and how they both get motivation from each other and the toybook when approaching a second language.

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Chapter 1

Introduction

1.1. Preface

Since the minute zero of life, the human instinct makes babies express themselves: by crying they ask to be feed, to be protected, they ask for attention. While they are still babies, this is the way they find to establish some certain way of communication with the mother, who also makes an effort to understand the baby. They do not share the same code of communication but soon they will. In a normal child development the little baby will gradually acquire what is called mother tongue or first language (L1) which will accompany the person throughout his life. However it might not be the only language a person will need to use.

From the microsphere of the everyday life in a human beings life to the macrosphere of the hyper connected Global World we are living in, all the aspects of the mans life are ruled by communication. In that sense, languages play an important role since it is a way for people to exchange opinions, to know different people, in short, to connect human beings all around the world. Global and cross-cultural communication has become a common social phenomenon in our current Global Society. Undoubtedly, compared to the previous generations, todays children are exposed to this phenomenon more intensely and therefore, second languages (L2) are needed more than ever before.

1.1.1 English as second language in Japan

When it comes to second languages, English ranks in the first place as being "universal". Airport signs, touristic spots' brochures, train notices, are not only exhibited in the local language but also, they are translated into English in order to make it more global-friendly.

Certainly English is not the only one, but it is accepted as the "most popular second language" in many countries of the World, and Japan is not the exception. The situation in Japan about English as second language (ESL) is somehow discouraging. Although the effort the Japanese Government makes to tackle this issue, the reality of how Japanese deal with ESL does not match successfully its expectations.

According to Education Testing Service, which administrates TOEFL (Test of English as a Foreign Language), Japan is among Asias worst performers on the exam and regarding the speaking skills Japanese have difficulties to debate fluently in English.[1]

The Formulation of a Strategic Framework for the Developement of Japanese Nationals with English Competence stated that in order to be able to live in the 21st. century and to cope with the rapid globalization of the economy and the societies, young generations will have to acquire communication skills in English.[2]

1.2. Social value

As part of the education, languages have potential and they are a key point for the development of the current and future societies[3] .

It is common that when parents want their kid to approach a new language other than the L1, they consider different options such as flashcards games, songs to sing in an online platform, Apps to get to know the language or they even send kids to an international kindergarten. The alternatives are varied and each of them has its merits but none of them focus on parents and children co-creating as a way to approach a L2. Besides, there is the set belief that if a family is monolingual, the second language is something external to the family. However, it may not necessarily be so.

Oyako project encourages parents and kids to welcome a second language at

home, through the design of a tool that allow them approach L2 in a creative and playful way. The proposal focuses on the family (parents + children) as an active entity, in symbiotic collaboration. This research aims to contribute with the society by generating a positive social impact in early childhood and family field.

1.3.   Research goal and questions

The objective of Oyako Project is to stimulate parents and preschool kids to approach L2 together in a creative and playful way. The challenge is to provide families the opportunity to have the first contact with the L2 together in a naturalistic setting, different from the academic structure a school can provide. It is important to mention that this project does not want to cancel or compete with the academic formal structure of education, but instead, it intends to contribute with the previous stage of elementary school, so that children can have a smooth first contact with a L2 before they start their official academical studies.

In accordance with this research goal, the following research questions arise:

- What kind of tool can help a family approach a second language in a playful way?

- How do parents and kids get motivated when approaching a L2 together?

1.4.   Fieldworks

1.4.1 Japanese youth and ESL

In order to know more in deep about the current real panorama about how the Japanese young are dealing with ESL, a fieldwork 1 was conducted. The target of this fieldwork was junior high and high school students since English as a second language has not a strong presence in preschool stage. For this first fiwldwork, Junior high and high school students from different prefectures of Japan (Tokyo, Chiba, Hiroshima, Nara, Nagano, Oita, Nagasaki, Hyogo, Yamanashi) participated. The students were aged 13 to 17 years old and the programs were

about making an exchange between Japanese students and foreigners by using English as language of conversation as shown in figure 1.1.

Through talking to them and observing their performance with ESL some issues could be observed. A great part of the students claimed that they were not good at or that they could not use English. The non-verbal communication showed also a lack of confidence on themselves when it comes to English: they spoke almost whispering and doubted a lot before speaking. Other students also mentioned that they liked English but they felt that it was difficult so instead of trying to use it, they prefer to give up and use the language they feel comfortable with: Japanese.

Figure 1.1: Fieldwork 1 with Japanese students
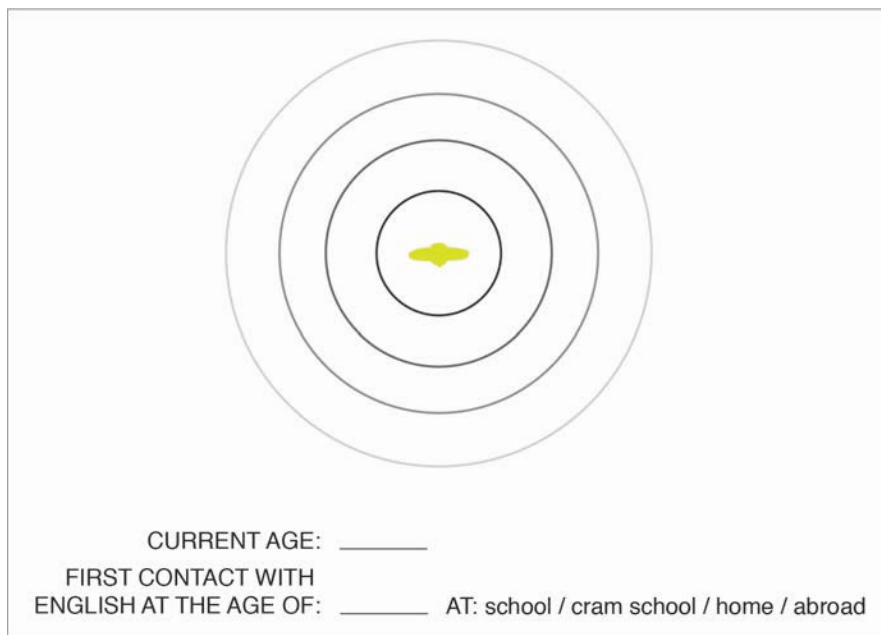
Figure 1.2: Survey distributed to the students

A survey was also conducted as part of the fieldwork 1, as shown in figure 1.2. In total 24 students from different Japanese high schools participated in it as seen in table (1.1).

Table 1.1: Participants of the survey

Hyogo	Kochi	Yamanashi
11 students	4 students	9 students

The survey consisted of two parts:

- How close they felt English in their lives

- The first contact with ESL: when and where

The first objective was to observe which perception they had about English in their lives. The survey was inspired on the concept of the Proxemics. This is the study of man's use of space, that ranges from interpersonal distances to the arrangement of classrooms and the architecture of schools. [15] The students were

asked to imagine English as an entity that exists in the habitable space. They
were asked the following question:

If the yellow point in the middle is you, where is English for you?

The students marked with a point or coloring the circle where they felt English
was in their lives. As the results show in figure 1.3, there is a big percentage of
the students that feels English is in Intimate and Personal spaces, which are the
two closest to them. In comparison, the percentage of the other two spaces is
quite low. The reasons for the choices were not asked as to remain as an intuitive
question.
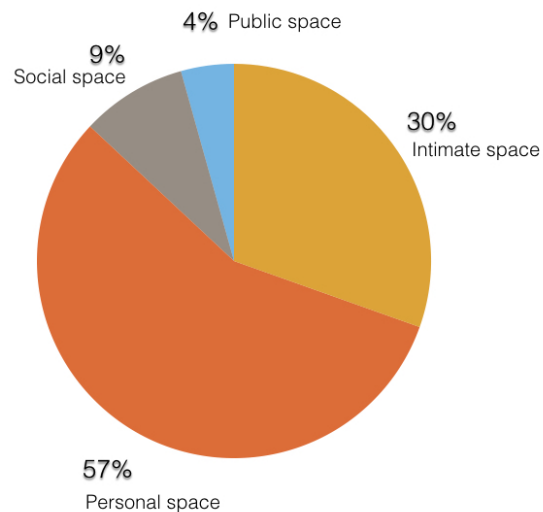
Figure 1.3: Closeness to English according to students

For the second part of the survey, the intention was to know about the first
contact the students had with English and in which context it was.
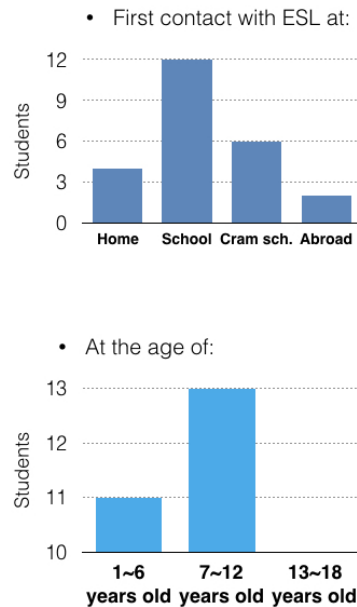
Figure 1.4: First contact with ESL

As general findings it was noted that although Japanese students felt English relatively close to them there was a general attitude of reluctance when it comes to the use of English. What is more, figure 1.4 shows a remarkable point. A big number of students had their first contact with English:

- At school - this is under an academic structure

- In the range age of 7 to 12

Since Japanese and English are two languages quite different linguistically, the factor of the onset age might be important to take into consideration. In short, there is an evident lack of confidence that might be affected by the motivation Japanese youth have towards English as a second language.

1.4.2 Hippo family club

A second fieldwork was conducted to broaden the research perspectives. The fieldwork 1 was about exploring in deep the side of the problem and the fieldwork 2 stood on the opposite side: an alternative to tackle the issue.

The fieldwork consisted on the observation of different activities. Particularly, in this case it was not a passive observation but the observer took part in the activities and made the observation as a participant. The activities this program proposed, were planned to be shared by the whole family. Kids from different ages, from babies to university student and their parents were taking part of the gathering in a very informal situation and space. They put some picnic blankets on the floor and they sat together without any specific order.

It is important to mention that it was not only English the foreign language used in the activities but also Italian, Thai, Arabic, Spanish, Korean, among others. The singular approach Hippo Family Club proposed was learning different languages naturally through immersion.

The activities included:

- singing songs

- greeting in different languages

- listening to stories and trying to figure out which language it was (recorded audio)

- playing games

There was a specific game that had a remarkable point worth mentioning. The participants had to dance while walking in the room and when the leader said a number, people had to gather in groups of the number mentioned. The challenge was to understand the numbers which were said in different languages: something difficult or even impossible, because not all people knew all the numbers in all the languages. However, surprisingly, it was not a problem at all because "if you do not know the number, do not worry, see others and copy them" expressed Yokokawa-san, the leader of the event.

In summary, there were two main discoveries that might seem obvious, but sometimes when people think about second languages do not take into account:

- When learning in naturalistic setting, explanations are not much needed

- Kids learn by imitating other members of their social group (peers or adults)

Notes

1   https://www.japantimes.co.jp/news/2016/09/05/reference/english-heads-elementary-school-2020-hurdles-abound
2   https://www.nier.go.jp/English/educationjapan/pdf/2016FLEES.pdf
3   http://www.unesco.org/new/en/culture/themes/cultural-diversity/languages-and-multilingualism/

Chapter 2

Literature review

2.1. Main domains

This research project works with three main domains that serve as pillars for the conceptual structure. Therefore it was considered pertinent to expound its literature.

2.1.1 Parent-child co-making

There are lots of researches conducted on the parent-child relationship and how it affects children's development, performance at school, personality, behavior, etc. Since the family is the first social group a kid belongs to, parents become essential guides for their kids. The same way, it happens when they make an activity together. Sadka and Zuckerman stated that parents have the potential to fulfill the important role of the mentor in a family activity context. [13]

The first stage in children's life is decisive since the kids are building the grounds of their future life and they are going through the the process of development, in which each kid evolves from infancy to independent adulthood. It is said that the genetic factors may determine the development potential, but environmental factors have crucial influences on the profile achieved. Bellman, Byrne and Sege claimed that the positives experiences during childhood have the ability to enhance brain development, in particular in the area of linguistic and social skills. [1]

The preschool age is fundamental stage to get ready for a fruitful and smooth academic life in the future. Muiz, Silver and Stein suggested that parents with preschool aged children who regularly practice family routines together have greater social-emotional health and also added that it is recommended that families, sing, read, play and eat together on a regular basis in order to enhance children's school readiness. [10]

In the same line, it can be stated that playing together, for parents and children becomes a differential value. As Ginsburg discussed in his pediatrics research paper: "The interactions that occur through play tell children that parents are fully paying attention to them and help to build enduring relationships. Besides, parents who have the opportunity to glimpse into their childrens world learn to communicate more effectively with their children and are given another setting to offer gentle, nurturing guidance" [6].

Parents getting involved in children's everyday life has been proved as a positive effect on kids' life. Therefore this research considers it a highly valuable core for its concept.

2.1.2 Second languages

When it comes to second languages there is a wrong general preconception that the monolingual mind is the normal state of the things [12]. Therefore it makes people believe mistakenly that the multilingualism is the exception.

Nowadays there is a rapid social change in a global scale that confront this issue and shed light to the question: is one language enough to survive in this World?

Another controversial topic about second languages has always been the age of start. Ioning stated in research, that L1 transfer increases as age of first exposure is delayed (approaching puberty) and Blom added that L1 transfer is clearly more present in adult L2A than in child L2A. [4]. Some researchers and professionals from different areas say the faster, the better, and some others do not agree with the statement. As doctor Pedrosa said, during the first four years of live is when more neuronal connexions the brain has. So that period is perfect to nurture the brain with information and linguistic stimulus. This could be an interesting point to go deep in this research since he also stated that the preschool age is when

a person learns naturally, and because children do not have the feeling of shame if they make mistakes, it could be the most fruitful age to approach a second language for the first time.

What is more, an interview with a educational psychologist who works in a bilingual kindergarten (Spanish and Japanese) shed light on the positive aspect of parents getting involved with the second language. The kindergarten she works in, is a kindergarten where during the morning kids have classes in Spanish, and in the afternoon, classes in Japanese. Most of the families who send their kids to that kindergarten have no relation with Japanese as a second language. However, only few parents started to take Japanese classes for adults. The interesting point for this research is the positive influence those kids whose parents were immersed in Japanese learning, received. Through her experience and daily observation she claimed that children, whose parents were taking Japanese classes, showed more interest in Japanese compared to those whose parents did not attend any Japanese classes. Although Japanese as a second language is still something relatively strange for the kids, the fact that parents transmit their interest in it, causes in children a positive influence.

The age of initiation and the motivation towards a second language are two aspects that are relevant to this research. The discussion will be about how the motivation preschool children can have towards a second language, influence their lives.

2.1.3 Storytelling

Storytelling has always been related to children, not only for pleasure and entertainment but also as a learning tool at home and at schools. The format a story can acquire is broad, there are antique and modern formats. It is important to remark the definition of storytelling and say that nowadays its definition has been expanded. As Assilmia [5] stated, now Storytelling refers to a wider narrative story delivery that can use various techniques and mediums.

Isbell, Sobol, Lindauer and Lowrance described in their journal [7] that although storybook reading is one of the most studied formats for increasing language learning in children, there is only few research studies on storytelling and its possible influence on the language development of young children. However,

G. Wells, affirmed that young children find it easier to assimilate new ideas when they are presented in the form of a story and that even older students look to anecdotes to help to help them understand new concepts and link them to their lives. This statement supports the conception that human beings do not learn by heart, by picking up isolated words, ideas, concepts but we always look for a context that works as a structure that holds a complex system of words, ideas, concepts.

When it comes to methods for stimulating children to start a new language, we can find several different approaches. Certainly, there are methods that are rigid and more mechanical, but luckily, we can find methods that resembles how a people learn in the real life, by experiences. Storytelling has the spirit of those methods that do not want to be systematic, exact, but whose philosophy is just about imitating everyday life and aims at children learn as natural as possible.

For all the stated above, this research finds in storytelling an optimal core value to base its concept on. Along the chapters, it will be discussed how these three pillars: parent-child co-making, second languages and storytelling will be combined in order to develop a solid concept for this research.

2.2. Related works

Several works with different characteristics have been created in order to bring second languages to families' home environment aiming at nurturing children in this field.

2.2.1 Tales at home

Tales at home is a project that, in essence, works towards the development of the non-formal language learning. It targets not only multilingual families, but also counts on professionals from different fields such as language learning, intra-familiar relations, social inclusion in order to work in an interdisciplinary way. As its name indicates, the focus of this project is families and their environment at home.

This is a project that has several sub-projects related to languages learning and familiar well-being. Currently it is possible to explore online the interactive

tool they developed as can be seen in 2.1. Its goal is to talk about languages and emotions at home.

It is interesting to remark that the methodology, the approach they use is User centered Design. Another outstanding point is that they work with the languages for the families, so the main target is not only children, but the whole family. This is a promising integral project that aims at empower families to build a positive and stimulating environment with languages.

Figure 2.1: Tales at home App - Source: app.talesathome.eu

2.2.2 Kamishibai

Figure 2.2: Kamishibai, a product offered in various languages - Source: sieteleguas.es

Kamishibai (figure 2.2) is a product developed by Sieteleguas Ediciones in Spain. It was designed inspired by the traditional and ancient Japanese technique of storytelling. This kit consists on a mini theatre, sheets with the pictures and as an additional features provided, it includes a CD with music and special effects to play while telling the stories.

The stories are made to be consumed by the children and the parents are in charge of the performance by reading the text and slide the pages. The texts are written on the backside of each page and the singular point of this product is that it is written in four different languages: Spanish, English, French and German. The good point is that this a product that promotes the languages to be used at home by the whole family. However, the limitation for this product comes when the adult responsible for the performance cannot use the other languages that the

story includes.

2.2.3 Reading pens

Figure 2.3: Reading pens with books for children

Reading pens (figure 2.3) are probably one of the most used tools by children all over the world. They are not a single tool, but they always comes with a book attached. They come in different formats, sizes and sometimes they even collaborate with famous characters to make it more appealing for kids. However, the function is the same for all of them. The reading pen says aloud the words or phrases the book contains by positioning it on the pictures.

Usually these books have colorful pictures and sometimes the reading pen can also reproduce songs, not only single words. It is necessary to say that this is a product that relatively provides autonomy for kids since the interaction is just by placing the pen on the book. However, if the interaction proposed by the product is too simple or becomes monotonous the kid can get bored and therefore, abandon it.

Chapter 3

Design process

The design process f any project has many different stages. This third chapter describes in detail the characteristics and the decisions taken for this project.

Backed up by the previous investigation, that included the literature review, this chapter shows how starting from prototype 1 Oyako project found the way to build a well-founded concept which core pillars were: parent-child co-creation, second language and storytelling.

3.1. Prototype 1

As a pre-stage for the design process, a mini test was executed. The objective was to observe the dynamic of a preschool kid and parents when drawing words in English. English was a new and external agent, and the idea was to observe how the family reacted when exposed to it. The target for this mini test was families who do not have English incorporated in their life. Regarding the kids, the only requirement in age was that they were under six years old, this is a kid before starting the formal academic life at elementary school.

3.1.1 Design

The tester family was composed by a 5 years old girl (figure 3.2) and her mother. The girl was given a set of six basic words in English: dog, banana, ball, house, car and pencil. The mother asked to choose three words to draw. The task

was to redraw the words together. While working together, the idea was that the
parent can talk to the kid about the words they were redrawing.

Figure 3.1: The preschool girl during the mini test
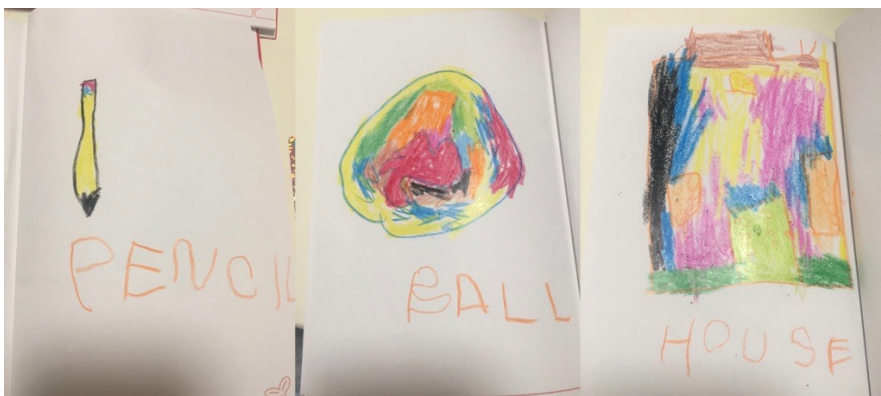
Figure 3.2: The drawings of the preschool girl

Although one of the goals was to examine how much the kid could remember
the words they had redrawn together with parents, there were other findings that
should be mentioned.

3.1.2 Findings

One of the observation and evaluation points was about the age of the kid in order to determined which was the most suitable range to consider as the target of this research. All the explanations needed for the test was given by parents in their native language. The test had no witnesses other than the family itself. It was recorded and then analyzed.

- Through activities kids enjoy, they can interact with words from other language and can even remember some of them later.

- Kids' span of attention is not that long. The time for a kid doing something should not be longer that they can manage.

- Age matters: kids under three years old are still developing their fine motor skills and might not be the suitable target for this type of activities

- Children do not have the knowledge of how to approach a new language and the importance of a L2, the role of adults become essential for kids motivation.

- Drawing showed positive response about second language

3.2. Prototype 2

Prototype 1 gave the project the trigger to put into practice the preliminary ideas and the combination of concepts in order to shape the upcoming design.

Now the challenge was to make use of the data obtained from the previous work and give more solid shape to the project.

3.2.1 Design

Prototype 2 was about a program for preschool children and their parents to be done at home under the demand of creating with their hands while using English words.

The proposal of the program relied on a manual as the core media. The manual was not only the supporting material for parents, but also the tangible the children

used to point what he could not express with (English) words. Based on the way the babies express themselves, by pointing with the finger before they start to talk, the manual was designed to be mostly graphic and visual. The circuit of communication proposed can be seen in figure 3.3
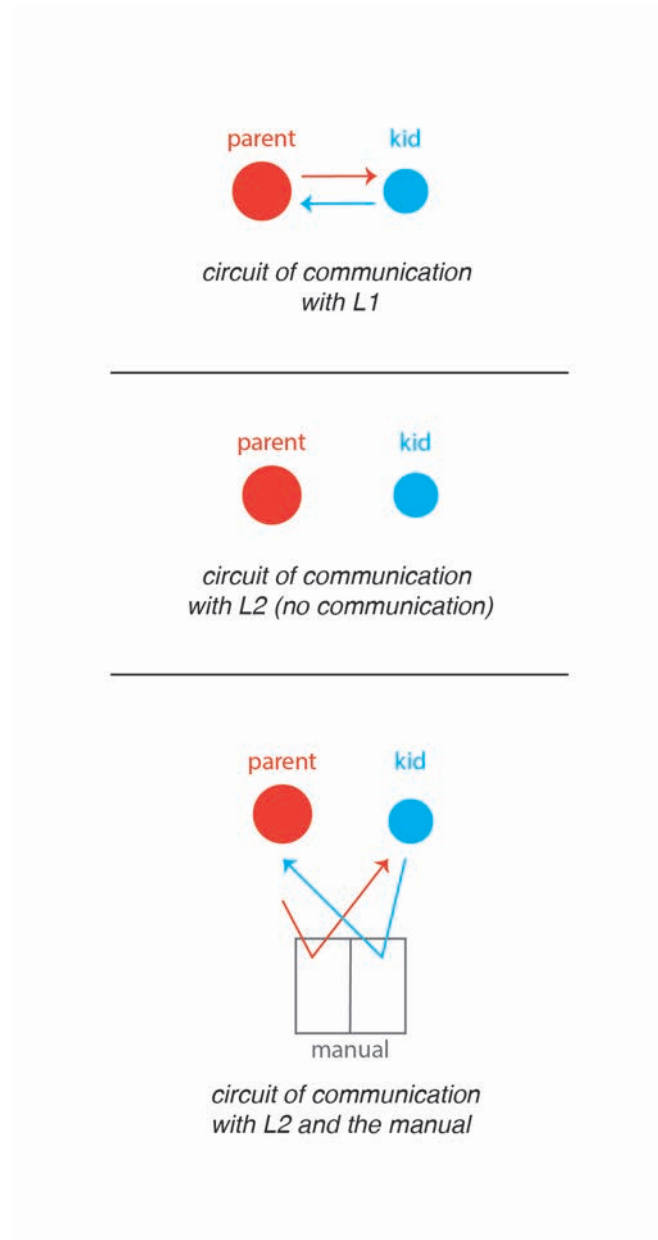
Figure 3.3: A comparison on the diagrams of communication

The role of the parents was to guide the whole activity by having the support of the manual which had English words, pictures and some translation in Japanese as well. The assumption was that parents can play the role of facilitators by using the manual.

In order to try the initial activity of the program, a first deployment, a pre-test was conducted to evaluate in which grounds the design was standing.

3.2.2 User interaction test

Figure 3.4: Users trying prototype 1

Most of initial books and games in English for children have simple words and they are full of illustrative references. For this first instance, based on the content of those books, the vocabulary was specifically selected: colors, fruits, numbers.

The users were asked to select 2 fruits to first draw them and then craft them with color papers (figure 3.4) By using the manual as medium of interaction by pointing and repeating the words aloud: the mother read the word aloud and the kid repeated it, they decided to draw and craft a red strawberry and a blue pineapple.

This pre-test took 40 minutes and it was recorded in order to observe in detail:

- the interaction between the participants

- the attitude of the participants during the test

- the interaction of the participants with the manual and the materials involved

3.2.3 Evaluation and findings

During the 40 minutes of test, there were many relevant actions the participants made and it had some points to be highlighted. As the table 3.1 shows, there were ups and downs in the kid concentration with the task. In the end the test could be completed successfully.

Table 3.1: Highlights from the pre-test - Prototype 2

Minute	Action
11:42	1st. disconnection with the task, boy plays with strawberry as a ball
13:30	boy points the manual associating strawberry, red apple
18:30	logical sequence, boy anticipates what to do
19:41	non-verbal communication applied: boy refers to big with body language
20:52	2nd. disconnection with the task, boy stands up from the chair
24:55	further from the activity place, boy walks back and forth
36:48	boy brings an external toy, its favorite from a tv show
38:40	sign of interest: boys says let's create an apple (in Japanese)

After the test, an interview was conducted with the participant mother to get some more data about their daily routine and their relationship with ESL. The way the kid in this family is in contact with English is through songs and movies or books. The family only uses Japanese, which is the mother tongue for them and the activities that they usually do together, parents and kid, is playing with blocks or watching DVD.

Among the significant findings one of the main concerns is the role of the parents. Although parents' attitude is positive about ESL, it is complex when they have to use a language they do not have a good command of. The assumptions were different from the initial expectations this first prototype was expecting. On

the other hand, although the manual served as a medium for kids and parents to communicate when L2 was present in the situation, the figure of a manual was still too rigid and structured, in other words, dull to play the role of a playful tool.

The outstanding point of this first prototype was the communication the interlocutors could establish using an external object, in this case, the manual. Although it was a "challenging communication" taking into account that they were exposed to English words, they succeed in making good use of that external object that was provided to them.

3.3. Oyako: the concept

Figure 3.5: Oyako logo

With a long way of work done, the concept was finding more solid base where to stand. As stated in previous chapters, Oyako Project (figure 3.5) had the premise of bringing second languages in a playful way to homes not only for kids, but for the family. The concept had three main pillars: Parent-child co-creation, second language and storytelling as shown in figure 3.6.
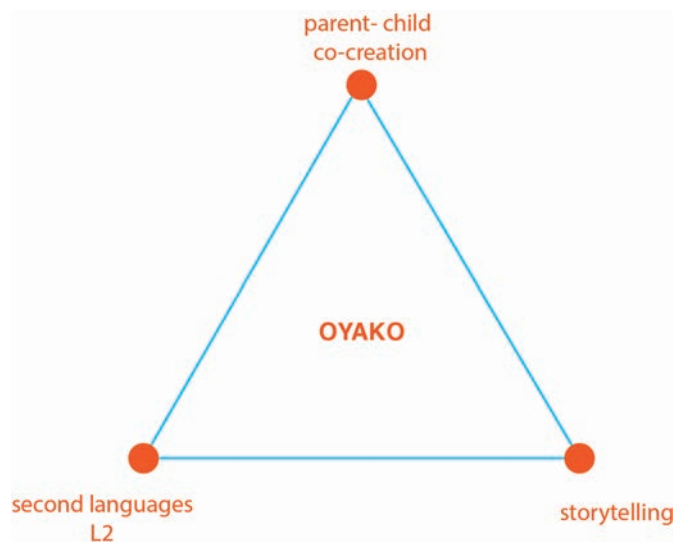
Figure 3.6: Oyako three main domains

It was already discussed the importance of second languages in children's lives. Specially in current times where compared to preceding generations, it is socially believed that a person should be able to manage another language other than the mother tongue.

The target of this research is preschool children from 3 to 6 years old and their parents. It should be stressed, again, that Oyako proposes a non-formal approach to L2 and its purpose is not to take the place of school or cancel it. On the contrary, it aims at contributing in the first phase for children regarding a second language with a smoother way to approach it. Second languages can be a very strange entity for kids when they start to study at school. Therefore they can have an unfavorable reception among kids. Instead, if they have an harmonious previous experience, this can influence positively their motivation and consequently nurture the future academic performance.

THE FAMILY

As stated before, usually when parents want their child to immerse in a new language, and they do not have the ability of speaking, using or understanding it, the common attitude is to take that kid to a third party place, either cram school or private teacher or they provide items to kids for them to play or interact with

the L2: Apps, toys, books, games, etc. In short, they disassociat themselves from the process of approaching a second language with their kids.

The attitude of parents involved in the process of getting to know a new language is essential. Specially for the fact that children at that age are not capable of deciding by themselves. As Vygotsky stated in his sayings, what the child is able to do in collaboration today he will be able to do independently tomorrow [8]

CO-CREATING

It is a reality that the demanding and pressing rhythm of life can make adults lack of situations of being together with their children. This is one reason Oyako focuses on the cooperation, in the symbiosis between parents and kids.

Children are constantly designing, creating, experimenting and exploring. [9] However, it does not occur the same with adults whose creative skill seems to be gone with their childhood. Creating together reinforces the bond and brings benefits on children motivation and development.

3.4. Improvements from prototype 2 to 3

SOUND SOURCE

One of the biggest improvement needed was about the source of the English sounds. The previous user test, prototype 2, shed light on this issue. It was evident that the new English sounds had to come from a third source that is not parents or kids, since they found them an external agent and consequently, difficult to manage.

Still the premise was to keep the human voice as a source of it. Napolitano and Sloutsky discussed in their work that even unfamiliar linguistics stimuli, including unfamiliar words, may have an advantage over somewhat familiar because linguistic stimuli stem from a highly familiar source which is the human voice. [11]

MIX MEDIA

The outputs of the previous tests showed the great attachment and children had with the tangible materials provided and the creation although they deal with the not familiar language. [2] Cho, Cho, Yoo, Shin and Bianchi said that children's engagement and understanding are correlated with how immersive, interactive and physical the learning environment is.

There are different formats to access information nowadays. Older generations might be more used to analog but gradually new formats burst into human beings lives, but still, analog formats still keep their charm. The generation of our children are consider digital natives. Digital storytelling [3] is a way that connects them to content in ways they are accustomed to consuming information. The design decision was to mixture both, analog and digital.

HANDS-ON IN A CONTEXT

The creation aspect was proved to give good results regarding the children interest. But still, there was a need to give a framework for the creation part, that prototype 1 was lacking of. Besides, the way the English content was treated, isolated words, the lack of a context for those words, was far from the way people learn in a naturalistic setting. The reason why storytelling was chosen to be the discursive framework for the design is because it was proved to produce positive gains [7] in oral language and it has been very much used in educational field.

3.5. Prototype 3

Figure 3.7: Prototype 3

3.5.1 Design

Prototype 3 brought an improved version of the previous work, giving life to a toybook, as shown in figure 3.7. The digital toybook contains audiovisual stories and encourages children and parents create their own pictures for the stories.

parent   kid

circuit of communication
with L1

camera

doors   screen

audio

toybook

1.   2.   3.   4.
parent kid   parent kid   parent kid   parent kid

toybook   toybook   toybook   toybook

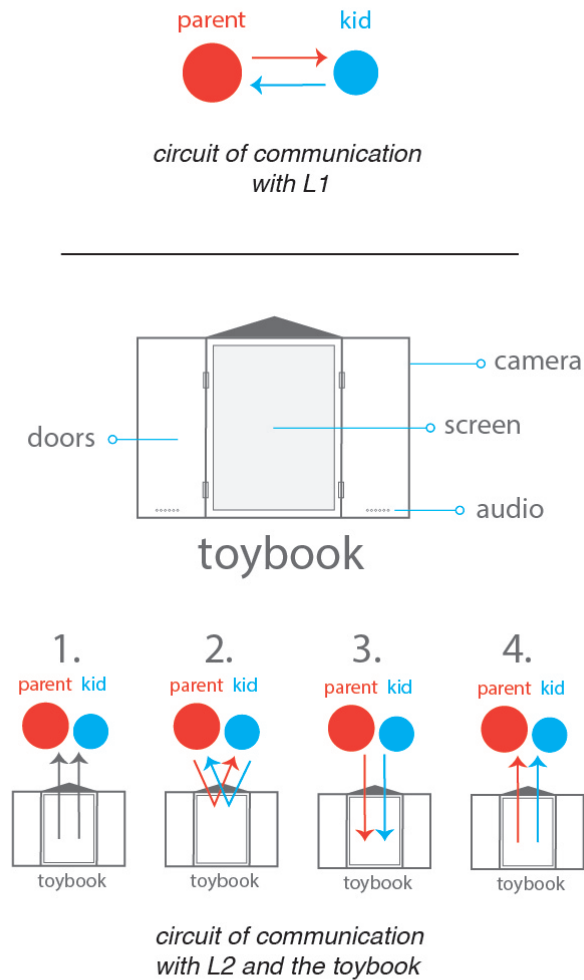circuit of communication
with L2 and the toybook

Figure 3.8: Prototype 3 circuit of communication

STRUCTURE

The toybook has a shape of a mini theater A5 size made of colorful soft plastic
that has a screen and two doors that play the role of curtains, emulating a real

29

theater. When the curtains open, the audience is ready to immerse in the performance. It turns on when opening the doors and turns off when closing them. At the same time, the gadget has speakers where the audio comes out and a camera that registers digitally the hand-made drawings(figure 3.8).

SYSTEM
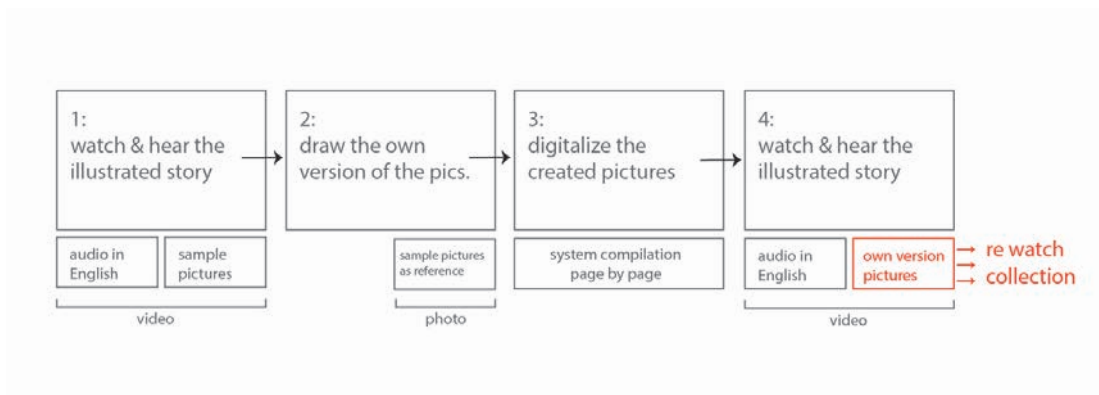
Figure 3.9: The toybook's system

The toybook has a system (figure 3.9) that guides the users and allows them to navigate through the functions:

- **WATCH AND HEAR**. The first step is to watch and hear the illustrated story. For parents, there is the option to read the translation of the stories in their own language so that they can transmit and interact with their children about them. The system stores the audiovisual stories: the pre-recorded audio in English plus the pre-drawn pictures. This is an observation stage for the users in order to discover the scenarios, the characters, etc. and hear the new sounds, the words in English.

- **CREATE**. The second step is the creative part which is also the non-digital stage. Using the toybook to see the pictures as a reference, or not, the users, parents and children, are required to create in paper their own version of the pictures using any material they want, such as pens, markers.

- **DIGITALIZE**. After the creation part, the third step is the digitalization of the hand-made pictures. Using the camera the device has, the system guides the users through the compilation of drawings, page by page to make the new version of the audiovisual story.

- **WATCH AND HEAR**. As the final stage of the process the users watch the audiovisual story with the pictures they created plus the pre-recorded audio of the story in English.

The interfaces of the system that guides the flow of usage of the toybook (figure 3.10)
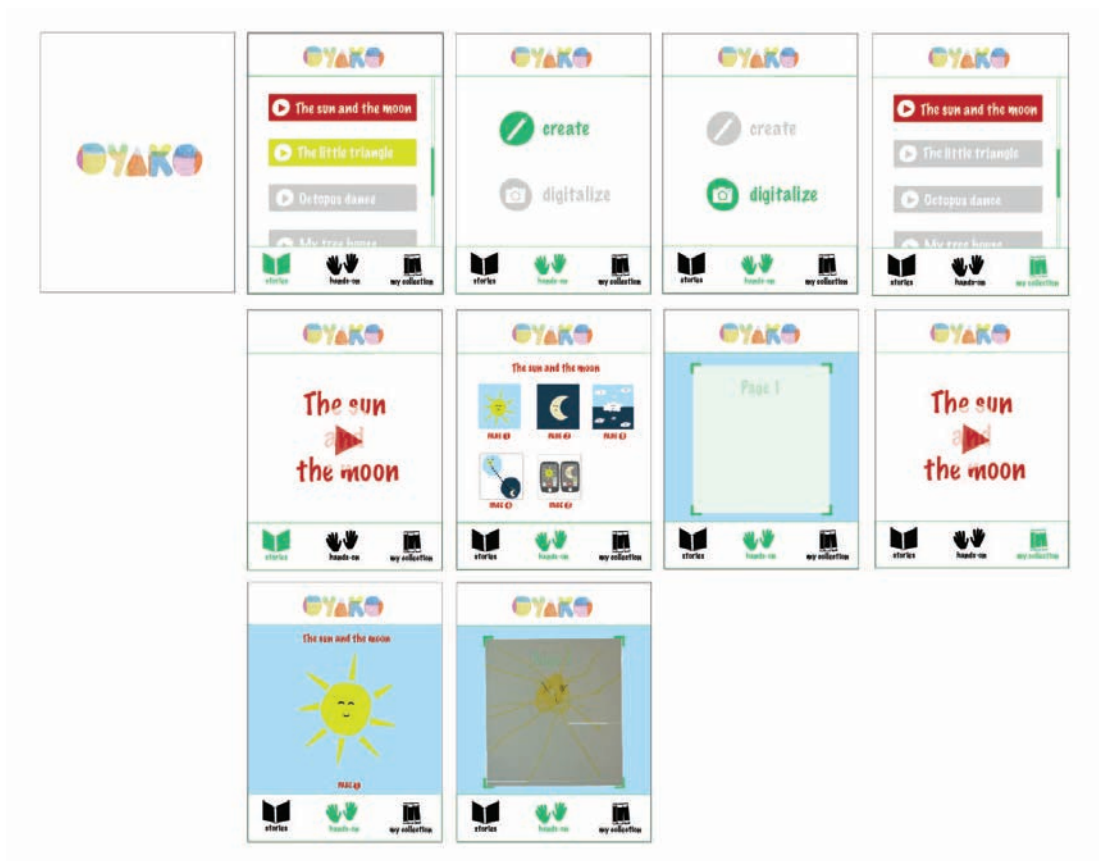
Figure 3.10: Interaction of the system

Chapter 4

Proof of concept

In order to answer the research questions stated in chapter one, this fourth chapter presents the evaluation process the toybook has gone through.

4.1. Validation criteria

As stated in previous chapters, Oyako proposes a initial approach to English in a playful and creative way for parents and children at home. For that reason, the knowledge of the second language is not a factor tested in this research.

The aim was to:

- Observe and analyze the user's interaction with the toybook

- Evaluate the motivation in parents and kids when using the toybook

Since motivation is a highly abstract psychological entity and therefore complex to evaluate because of its nature, the evaluation process needed to be as comprehensive as possible. For that reason, the evaluation was done in two main phases:

- Recording the user test in order to re watch it and conduct a proper analysis of the observation

- Questionnaire and interview with parents post user test

EXPERT REVIEW

The research required a consultation with professionals from the field of psychology to establish an accurate assessment process. In order to do so, two psychologists were consulted. The first one contributed with a general overview for the testing and then referred the consultation to a second psychologist whose expertise area was infants.

Children evaluation was conducted through the method of observation. It included some pertinent categories that were relevant to this research:

- the kid paying attention to the toybook interaction or not

- interaction between kid and mother

- the kid focusing the attention on other objects

Parents evaluation was conducted in two parts. First, a questionnaire was given to them after the test finished. It was based on the study developed by Safdari, S. [14] who in turn made use of the theory of second language motivation research devised by Zoltan Drney which was called L2 motivational self system (L2MSS). Finally, a brief feedback from interview with the family was part of the evaluation process as a way to optimize the testing.

4.1.1 Target group

The target group for the test was Japanese families, this is: at least one parent, mother or father, and their kid. The age of the kid was set to be from 3 to 6 years old. The requirement was that they are not bilingual in English.

4.1.2 Test environment

The test was designed to take between 30 to 45 minutes from the beginning until the end. This includes the time to try the prototype parents and children together, and the posterior time for the parents to fill the questionnaire and give a brief feedback.

THE PLACE

The space for the test was a house setting so as to place it in a real life situation. Some tests were conducted together using the house of one of the families. In those cases, each family was tested individually but they were sharing the same environment. Some rounds had more than one family tested as table 4.2 shows:

Table 4.1: User tests rounds

Round	Families
1	A
2	B
3	C, D, E
4	F, G
5	H, I
6	J, K
7	L

A camera was set strategically to record the whole test in order to have the material to re watch, observe and analyze it carefully.

THE PREPARATION

The prototype of the toybook contained a audiovisual story: English audio + non-animated illustrated pictures. The story was a five page short story. Mothers could access the translation in Japanese of the English story.

Figure 4.1: User test preparation

As shown in figure 4.1 a table was set with materials to draw: color pencils, markers and numbered papers from page 1 to page 5, in which the users were asked to create their own illustrated version for the story in English. The questionnaire for the adults was also distributed to be completed by the end of the test.

ENGLISH CONTENT

The test was run with a sample story created specifically for the occasion. The content was selected according to the books that already exist in the market that introduce vocabulary in English for children. Simple vocabulary such as: sun, moon, clouds was mixed with other short and logical structures to create the story.

Page 1:The sun lives at daytime
Page 2: The moon lives at night
Page 3: they have the same friends, the clouds
Page 4: However, they live far from each other
Page 5: So they make video calls to talk

4.2. User tests

In total 12 Japanese families (children and mothers) participated in the user test, as can be seen in table 4.2

The users were asked to start the test by watching and listening the story so that then they can draw their own version of each page. The drawing part was free: they could draw together at the same time, they could choose to draw one after the other, only the kid, the kid with the mother's help.

Mothers were told to speak in the language they wanted with their kids: entirely Japanese or trying to mix some words in English if they felt like. After the creation part, their drawings were digitalized and loaded to the toybook so that by the end of the test they could watch and listen the story again, but this time with the pictures they had created.

Table 4.2: User test participants

	Participants
Family A.	Mother and 2 years and 11 months old girl
Family B.	Mother and 4 years and 8 months old boy
Family C.	Mother and 4 years old girl
Family D.	Mother and 4 years old girl
Family E.	Mother and 5 years old boy
Family F.	Mother and 4 years and 10 months old girl
Family G.	Mother and 4 years and 8 months old boy
Family H.	Mother and 6 years old girl
Family I.	Mother and 8 years old boy
Family J.	Mother and 5 years old boy
Family K.	Mother and 6 years old boy
Family L.	Mother and 4 years old boy

4.2.1 Family A.

Figure 4.2: Family A. during the user test

Although the established target for this test was parents and children between 3 and 6 years old, family A.'s kid was a girl who was about to turn 3 years old, she was 2 years and 11 months old so she was accepted as a valid tester. The test's duration was 18 minutes. (Figure 4.2)

Mother A. and daughter A. watched the audiovisual story and the girl said it was fun and asked to re-watch (she talked in Japanese). They started to draw together after the suggestion of the mother: she drew the shapes for the objects in the pages and the kid added the eyes for the moon, the sun and the clouds. Mother A. made the kid participate in the process actively. Around minute 5, the marker they were using fell to the floor and the kid got distracted for the first time in the test. While mother A. picked it up the girl took a microphone toy she had in the table and started to blow it. Soon she went back to draw.

While drawing, mother A. praised the kid many times, and asked to do some actions such as complete the drawings she was doing. The girl responded actively to the requests.

The last part of the test, where they had to watch and listen the story with the

pictures they had created, had a setback. It was done manually in an analog way: mother A. was sliding the pages in the mini-theater and the kid was supposed to watch it. Some troubles surfaced. The coordination between the sliding pages and the audio was not accurate, the kid was more attentive to the source of the sound and also wanted to interact with the mini theater by touching it. This demonstrated that the prototype needed some revision.

Girl A. showed an active behavior throughout the test by drawing herself some parts of the pictures, asking questions to her mother, replying positively to what her mother asked her, smiling, having an engaged body posture.

By the end of the test, mother A. was asked some questions and she told that she plays together with her daughter with English content with the popular character Shimajiro. Specifically when asked about the importance of playing together and getting involved in children second language first contact, mother A. said she thinks it is better to approach English together, parents and kids, and that if she has the chance, she would like to have more stories to draw with Oyako toybook.

- **PROTOTYPE 3 IMPROVEMENT**

Early observations from the test conducted with Family A. showed some difficulties that were explained above. Therefore, a big improvement was introduced to the prototype. Thereafter the last part (where the family watches the audiovisual story with the pictures they created) was done digitally.

The digitalization of the handmade pictures was introduce in order to enhance the dynamic of the toybook. On the whole, this design decision was a satisfactory discovery in terms of users reaction.

4.2.2 Family B.

Figure 4.3: Family B. during the user test

The participants of this test were a mother and her 4 years and 8 months old son. Although the valid testers were those two, the little sister of the family was present in the test place and made some drawings that were not considered for this test. This duration for this test was 39 minutes. (Figure 4.3)

The test started and boy B. was aware of the camera, but gradually stopped paying attention to the camera and concentrate in drawing. In this occasion mother B. read the sentences of the story in English and then she did it in Japanese. She showed willingness to introduce English words during they were drawing together. Later on, she mentioned some words that appeared in the story to the kid.

At the same time, boy B. was actively interacting with his mother asking questions, such as, how he could draw the shape for the moon. In this test, the kid was mainly the one drawing but at some point asked his mother to draw some stars in the sky. The interaction between the users in this case, was through speaking, collaborating in the drawing and by asking and replying questions.

In minute 26 boy B. noticed that his sister is sleepy. At this point the kid

distracted his attention from the activity, but soon he went back to drawing. Page 5, the last page, was graphically more complex so Boy B. claimed that he needed help from his mother. When she was drawing boy B. paid attention carefully to what she was drawing, almost like supervising what she was doing. They finished the drawing part, the digitalization and it was time to see the final masterpiece they had created.

Mother and boy,together, watched the audiovisual story, now with the pages they created, and the English audio. She praised him with words and by touching his head, and Boy B. smiled. He wanted to re-watch his story, so he watched it two more times.

Family B. used English at home through listening to phonics songs, and playing with picture dictionary in English. When asked, Mother B. said that playing together with the kid in English can help the kid in the sense that if you do it since young age, it can make them feel more confident and less shy about the pronunciation and the speaking. She also remarked the importance of the parents in this process. About the fact of having more stories to draw and play with, the mother of family B. said that she would like to have more, because children usually get bored if they watch and hear the same story all the time. She also said that five pages for the illustrated story is a good number because if it is more, kids can loose attention, and added that if the kid can draw stories related to the characters he likes, he would be even more excited about it.

4.2.3 Family C.

Figure 4.4: Family C. during the user test

In the third round three families took part in the test. One of them was Family
C. which was a team composed by a mother and her 4 years old daughter (figure
4.4). It was a test of 23 minutes. Some other kids, siblings and other friends, were
also playing in the place of the test.

To start with the test, mother C. and her daughter watched the audiovisual
story. While watching it, girl C. was distracted by some noise coming from the
other kids, she looked at what was happening and then looked at the recording
camera.

Mother C. told her daughter to start drawing, the girl agreed and asked her
mother if she should draw a sun. Although the conversation between them was
entirely in Japanese, the mother used isolated words in English occasionally. For
example, she read the title of the story while the kid was drawing. The kid of
Family C. tend to look at the screen of the toybook many times while drawing in
order to copy the sample pictures.

After 12 minutes of test girl C. showed the first non- verbal sign of boredom.
She closed one door of the toybook and her mother encouraged her to continue

drawing. Girl C. continued drawing. She claimed that the moon was difficult to draw but did not show any sign of frustration. At some point, when the girl found a difficult part to illustrate, she asked her mother for help. Girl C. found difficult to draw the clouds as well and showed a sign of frustration on her face. The girl claimed that she wanted to finish drawing and go play with the other kids. Encouraged by her mother, the girl finished the drawing. After the digitalization and the compilation of the handmade drawings, finally they watched the audiovisual story with the pictures they had created in the toybook. Both watched it concentrated, but as soon as it finished the girl left the table and went to play with the other kids.

About the habits related to English, this family watches some TV programs and listen to English songs online. Mother C. said that she believes that if parents get involved in the children first contact with a L2 kids can be more interested in it and added that she would like to have more stories to interact with the toybook. As a personal reflection she said that she thinks she needs to use more in English.

4.2.4 Family D.

Figure 4.5: Family D. during the user test

Family D. members were a mother and her daughter of four years old (figure 4.5). It was present at the test the youngest girl of the family but she was not considered a valid tester because of her age. The duration for Family D. test was 17 minutes.

They first, watched the audiovisual story. The other kids who were in the house also wanted to watch it so they joined. As soon as they finished watching, mother D. and her daughter started to draw. The youngest sister came closer to the testers claiming that she also wanted to participate in the activity and sat on her mother's lap.

Another family, Family E., was doing the test on the other side of the table so girl D. while drawing watched at what boy E. was doing. Mother D. had to split her attention into the girl D. and her youngest daughter. Mother D. was in charge of giving girl D. the papers where to draw and coordinate the drawings with corresponding pages. During the test mostly the girl was the one drawing but they were actively interacting, the girl asking and the mother replying and watching her daughter drawing.

Lastly, the pictures they had created were digitalized and compiled and they watched the audiovisual story with their own drawings. The girl was holding a toy in her hand so at the moment of watching her story in the toybook her attention was divided between the toy she was holding and the screen of the toybook.

When asked, mother D. said that her family usually watches English TV programs for kids. She also thinks that playing together with her kids using English can motivate them to learn in the future. She added that if parents encourage children, they might not be able to speak, but at least they can lose reluctance towards English. She claimed that as long as kids enjoy parents being involved in the process of approaching L2 it is fine, but if parents are too much intrusive, it can be a nuisance. Finally, mother D. said that she is willing to try other stories for Oyako, the toybook.

4.2.5 Family E.

Figure 4.6: Family E. during the user test

Boy aged five and his mother were the members of Family E. (figure 4.6). The test for Family E. was 19 minutes. In the first part of the test, when they had to watch the audiovisual story, the boy called his mother to get closer to him so as to watch it.

Then he started to draw the pictures. Boy E. basically drew all the pictures alone, while his mother was sitting next to him paying attention to what he was drawing. Mother E. helped the kid with the order of pages, telling him what was next. She collaborated more on the operational aspect rather than in the creation aspect.

They talked to each other during the test and although the mother did not intervene much in the hands-on, they interacted about the creation. Boy E. was looking for a color (marker) and her mother made a suggestion pointing the picture in the screen. The test continued until the drawing part was finished. Once finished, the boy left the table and watched at the camera.

After the digitalization the story was ready to be watched in the toybook. At the time they watched the audiovisual story they had created, the mother, in a

low voice repeated the words in English to her son. When they finished watching their creation, the boy made a big smile and the mother praised him verbally and non-verbally by touching his head.

Mother E. said that they, as a family, had an experience with English together. Once they participated in one day English lesson and from her point of view when parents play with children using L2 can make kids have an interest in L2. While in the test she felt they were playing and for that reason, it was enjoyable for her and said that she would like to have new stories to play with her son.

4.2.6 Family F.

Figure 4.7: Family F. during the user test

Family F. was composed by a mother and her four years and 10 months old girl daughter (figure 4.7). The family had a younger member, who was in the test space but did not participate as a valid tester because of the age. The round of tests, was conducted with Family F. and Family G. sharing the same place and the same prototype.

The duration of Family F. was 12 minutes. They watched the audiovisual story and girl F. started to draw. Mother F. helped her daughter with the organization

of the drawings and said that for the first page she had to draw a sun, using the English word sun. Not only the mother used English words but also she explained the content of the story in Japanese to girl F. Mother F. showed an active participation.

Members of Family F. collaborated with each other more about the decision of what and how to draw rather than drawing together. In this sense, girl F. showed independence about the execution of the drawings and tend to watch a lot at the screen to copy the pictures. However, she also drew her own shapes for the objects in the pages. For example, the sample pictures had a half moon and she decided to draw a full moon.

After they finished drawing, they got the digitalized version of their creation. They watched it carefully and as soon as the audiovisual story finished girl F. wanted to watch again what she had created so she played it twice more.

Girl F. is quite active in English. Besides playing together, mother and children, with illustrated books, songs and quiz in English, Girl F. participates in online English conversation twice a week for 25 minutes each time. Mother F. said that they have a fixed time to use English, she tries not to mix suddenly English with Japanese so that kids do not feel discomfort from the situation. She also compared the current situation of her daughter to when she was a child. She said that her parents did not speak a word of English and she is glad she can provide an environment to her children that makes them feel more familiar with English. Mother F. expressed that she would like to have more stories to play with, and that Oyako combined successfully the analog and the digital. She found also impressive how her daughter watched with intense concentration what she had created.

4.2.7 Family G.

Figure 4.8: Family G. during the user test

Four years and eight months old boy and his mother were the members of Family G (figure 4.8). They were sharing test space and materials with Family F. For Family G. the test duration was also 12 minutes.

In the first part of the test, they watched the audiovisual story and then Boy G. started to draw. His mother helped him with the papers and the number and order of the pages he drew. It was interesting to observe how Boy G. looked what Girl F. was drawing. When he had to draw the half moon, Boy G. said it was difficult for him, but he tried it anyway. Mother G. guided him on what to draw next and also she explained the content of the story in Japanese.

One distinctive behavior of Boy G. was that he tend to look at what Girl F. was doing. Mother and Boy G. talked during the whole activity test asking for suggestions on how to deal with what he was doing. When he finished drawing he smiled. The digital compilation of his creation was ready and they watched it. Mother G. praised her son after watching the audiovisual with the pictures he had created. Boy G. wanted to watch it again so he played it for the second time.

Family G. spends some time together using English through songs, illustrated

books or drawing. Mother G. believes that playing together parents and children using English can encourage kids to learn English in the future. She thinks that playing leads to learning and that for very young children it is essential that parents are involved in the process of approaching L2. She wants to make her children see that L2 can be a fun thing to get immersed in. She thinks that drawing the own pictures for the story is something Boy G. enjoyed but she also has the feeling that there should be a balance between English(L2) and Japanese (L1) so that parents and kids do not use only L1. She remarked positively the fact that through Oyako Boy G.'s drawings could immediately transformed into a a picture book and that the creative piece could be stored and kept.

4.2.8 Family H.

Figure 4.9: Family H. during the user test

The fifth round of tests had two families as testers. Family H. and Family I. shared the test space: the table and the materials. Family H. was composed by a mother and a six years old girl (figure 4.9). The duration for this test was 26 minutes.

To start the test, they watched the audiovisual story and then Girl H. started to draw. In this case, at the beginning of the test the girl showed more independence on drawing, so she just consulted with her mother. Other kids were playing next to her while she was drawing.

There was a difficulty for Girl H. at page four. She looked at the sample and she found it difficult to draw and showed a sign of frustration and also expressed it verbally. Mother H. offered to help her and the girl agreed. Girl H. added that drawing the stars was difficult for her. She showed another sign of frustration: she closed the doors of the toybook. However, again, her mother told her that she will help with the drawing. Then, the girl guided her mother on what to draw. The last two pages, Girl H. asked her mother to help her, so the y drew together.

After the digital compilation of the drawn pages, they watched the audiovisual with their drawings. This was the only time when Mother H. repeated some English words she heard from the audio of the story.

Family H. sometimes watches some English songs video on Youtube and draws words and puts the meaning on it. Mother H. thinks it is important that parents motivate children with L2. She liked the experience with the toybook and she would like to try other stories in it.
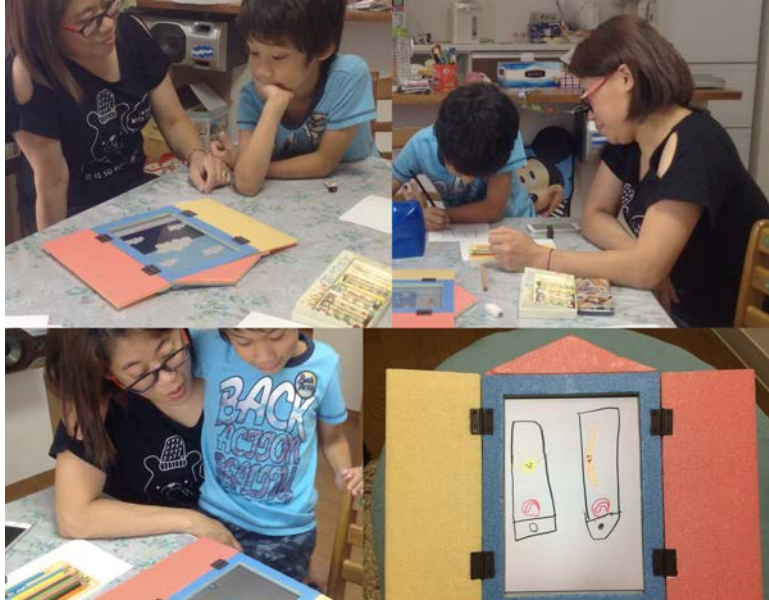
4.2.9 Family I.

Figure 4.10: Family I. during the user test

The original members in Family I. were the mother and her six years old son, however, he did not want to participate from beginning until the end of the test and on the contrary, his older brother, who was eight years old, did want. (figure 4.9). Although he was not the target of the test, it was conducted anyway in order to see the reaction in an older kid. The duration for this test was 23 minutes.

When the test started, while watching the audiovisual story, Boy I. was aware of the camera and looked at it. Boy I. started to draw the first page. He mostly drew independently, except for some times when he consulted with his mother about some drawing decision, such as, what color to use. Boy I. seemed to be conscious about the camera since he looked at it many times and did some funny faces.

The test place had three kids, including Boy I. and sometimes they used to discuss about how to draw some pictures, having this way, more peer interaction that parental interaction. Because of his age, Boy I, showed independence on the operational aspect of the toybook: he looked for the pages to draw, knew their order, so Mother I. accompanied him but did not interfere much. Boy I. found a

difficulty in the last page and he checked the screen to see the sample picture.

By the end of the drawing part Boy I. showed excitement to know that he will watch a story made of his drawings. He expressed it non-verbally by smiling and raising his arms. Family I. watched the audiovisual story made of Boy I.'s drawings and he smiled and also Mother I. did. As soon as watching it one time, Boy I. claimed that he wanted to watch it again, and he did so.

Family I. does not have any experience in sharing an activity related to English together, however, Mother I. believes that it would be nice if she as a mother can motivate her kids in L2 and she wishes she can have more stories in the toybook for her children because she thinks it is a fun and playful tool.

4.2.10 Family J.

Figure 4.11: Family J. during the user test

Round 6 of user test had two families. Family J. was one of them: mother and her 6 years old son (figure 4.12).The duration for this test was 32 minutes. At the beginning of the test mother and son watched the audiovisual story. Right after they finished, he started to draw. Mother J. showed active: she explained the content of the story to her son in Japanese. She closed the doors of the toybook

in order to encourage Boy J. to use his imagination and try not to peek at the sample pictures. The interaction between them was high. Boy J. consulted all the time with his mother about different aspects of the drawing. Because Family K. was also doing the test near them, Boy J. looked at what Boy K. was drawing. At a certain point, when the drawing was too difficult Mother J. helped with the drawing.

Once again Mother J. told her son to try to use his imagination and draw. The support she was given all along the test, made Boy J. use his imagination rather than copying from the toybook screen. During the creation part the users used Japanese to communicate. However, at the last part, when they were watching the audiovisual story with the pictures they had created, mother J. repeated some phrases from the story in English. By the end of the test she praised him many times making him smile.

Family J. has some contact with English in their daily life through English songs, illustrated books and DVD. Mother J. thinks that the fact that parents play with kids using English it can influence positively in their future. If they start playing rather than studying, she thinks children can have a fun image of English and that can make them like it. She added that although Boy J. does not like to draw that much and she is bad at English, they could both enjoy using the toybook through drawing the story and having the chance to watch it in the toybook.

4.2.11 Family K.

Figure 4.12: Family K. during the user test

The duration of this test was also 32 minutes. Mother K. and Boy K., aged 5, started to watch the audiovisual story and the boy repeated some English words after he heard it, like *sun*. However, he said he could not understand the meaning of the story. So Mother K. explained it in Japanese and encouraged also to draw the pictures by using his imagination rather than copying from the sample pictures in the toybook (figure 4.12).

The users kept talking to each other about how to draw during the whole test. Mother K. praised her son many times. Boy K. repeated some English words such as *page 2*. Page 4 represented a bigger challenge for the kid but he could do it well. After he finished with the creation part, and the pictures were digitalized, they watched together what they had created. While watching Boy K. smiled at his story. He wanted to re watch it so he played it again.

When asked, Mother K. said that they use English when they play card games and the also do cooking in English together. She added that they both enjoyed the fact of drawing characters to play in the story, their own story and she specially remarked that to have the chance to visualize the words is something very

beneficial for children.

4.2.12 Family L.

Figure 4.13: Family L. during the user test

Last round of the tests had Family L. as testers. It was conducted individually without any other family present. The testers were Mother L. and her 4 years old son (figure 4.13). In the test place was also the younger brother of the family. The duration of the test was 40 minutes. Boy L. was too much concentrated and drawing with small details.

They started to watch the audiovisual story in en toybook and then Boy L. started to draw, mainly, alone. Mother L. felt comfortable with using English so she told some phrases of the story to the kid in English and then explained it in Japanese. Boy L. showed high levels of concentration while drawing. Mother and son talked about how to make the drawings, about the colors and shapes. The verbal interaction was high. Mother L. often repeated words in English during the test. Even youngest brother repeated some words she said. Mother L. stimulated her son by praising him.

At certain point youngest brother started to get bored and expressed it. So Mother L. turned on the TV to entertain him. Boy L. got distracted with the TV sound sometimes, watched at TV side but did not stop drawing. Mother encouraged him to focus on the drawing. Boy L. checked the sample pictures in the toybook many times. His drawings were very much detailed. Mother L. tried hard to introduce Boy L. words in English by using Japanese. Once the digitalization part was completed, they watched together the audiovisual story with Boy L.'s drawings. She finally complimented her son.

Family L. usually listens to English songs so that children can repeat them naturally. Mother L. thinks that it is essential that first, kids have genuine interest in English because if they like it, in the future, spontaneously will have the desire to study it. Mother L. expressed that it is important that parents are involved in the process of children approaching a second language. Since she and her husband, both, had experience in living abroad, she thinks their children have interest in English. Regarding Oyako toybook, she was glad to use it, since she has never thought of approaching a second language through drawing and it was a novelty for her.

4.3. Findings and results

The user tests were part of a deep investigation on how these Japanese families interact with the toybook: their impressions, their reactions, the dynamic of using it and the general outcome.

The interaction between the members of the family and how this influenced each other's motivation about the creation of their own pictures for the English audiovisual story, was one aspect deeply evaluated as well.

It is worth mentioning these outstanding findings:

- **"DRAWING A SECOND LANGUAGE"**

  A second language is something strange and difficult in the beginning. First, recognize the sounds, then words, phrases, grammar, until reach more complex structures. These families were exposed to an English story, this is new sounds, new words so the auditive part was unfamiliar for them. However,

the visual part was not new, children knew the pictures of the story, because they had previous experience with them. Being able to approach a L2 by drawing, made them express themselves about the English story in a way they know. They could not with words, but they could with drawings. This works as an initial trigger to approach L2.

- **"MY OWN BOOK"**

  The reaction of the children when they finally watched what they had created with their mothers was a pleasant finding. The fact that their handmade drawings were transfered to a digital format and then converted into a storybook, their own book, was undoubtedly and outstanding fact. The satisfaction some kids showed when they watched their creation was reflected in their faces and in the fact that they wanted to watch it more than one time. Some mothers also claimed that turning the drawings into a compiled digital audiovisual story and play it inside the mini theater gave the creative work a real value.

- **"SOS!"**

  While the main creators of the pictures were the children, mothers were their immediate support. Some drawings had a certain difficulty to draw and kids asked for help. Either mothers helped drawing or helped with advice for their kids. This was a way to cooperate together in achieving one task. This reliance gave the children the confidence to overcome the situation and carry on. Mothers and kids confronted playfully a task that was related nothing but English.

The questionnaire filled by mothers also showed some uplifting results. Although the current situation shows that they recognize they are not trying to do their best in relation to English, they are willing to make an effort. There is a tendency of mothers who say that they would try English related media if they have the access. The levels of satisfaction regarding Oyako toybook, were also high showing a favorable feedback. See the results of the questionnaire in appendix A.

Chapter 5

Conclusion

5.1. Discussion

Oyako Project stated two core research questions:

- What kind of tool can help a family approach a second language in a playful way?

All along this research there were some aspects studied and as a result it can be stated that a tool to approach a second language in a playful way should be under the premise of a natural experience that children enjoy.

Children are imitators by nature. They copy to understand the World by themselves and drawing is a way of copying the world. It is an activity that children are familiar with and it is a pictorial way of expression that might help them decode the relation between sounds and meanings.

The analog-digital dispute is also a point to remark on. The supremacy of the digital media should not underestimate the power the handmade, the analog and the tangibles have. The key is the balance. A balanced combination of both can deliver satisfaction and accomplishment sensations which are a positive influence for those kids who are approaching a second language.

- How do parents and kids get motivated when approaching a L2 together?

As mentioned in previous chapters, motivation is an abstract entity so it represents a complexity to evaluate. However, there are indirect indicators that can be observed and analyzed.

For mothers, getting involved with a second language to the benefit of their children was a trigger of motivation. During the user tests it could be proved that although mothers did not have a fluent command of English they could help their children and in some cases they even made use of English by repeating words and phrases.

For the children, the motivation is related to the effect that the experience itself provides. The toybook motivates children through their sight and hearing senses. The fact that their pictures can be transformed to a audiovisual story motivates them. Another important source of motivation is, basically, parents. During the user tests some kids had some difficulties with the complexity of the drawings or the operational aspect and mothers who encouraged them and they got motivated to overcome those small challenges.

5.2. Overview

Each family had different experiences with English as a second language, but all of them agreed in the importance of having English in their daily life.

Oyako toybook could prove its value as a playful tool for parents and children to approach a L2. It provides a playful experience for the family to be in contact with English as a second language. The drawing and the storytelling allow kids and parents to immerse themselves in English stories. It is a valid tool to familiarize with a new language by listening new sounds, recognizing new words, exploring intuitively, playfully a second language.

5.3. Future work

While Oyako could prove its concept there is still space for improvement. Expanding the scope becomes necessary so that children do not get bored and the language content can also be expanded. On the other hand, it might be a prudent decision if the stories the toybook contains can be customized depending on the

preference of the users in order to motivate more the children. For example, if a kid likes marine world he can have a story related to it.

Although this research focused on Japanese families and worked with English as a second language, for future work and through further investigation, Oyako project can aim at expanding its scope and try to include other languages to the toybook. Because of the current global bustle we are living in, it might not be absurd to think about a bigger project in a global scale aiming at having a worldwide collection of these stories in the many languages that exist in this World.

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Appendix

A. Audiovisual story's sample pictures
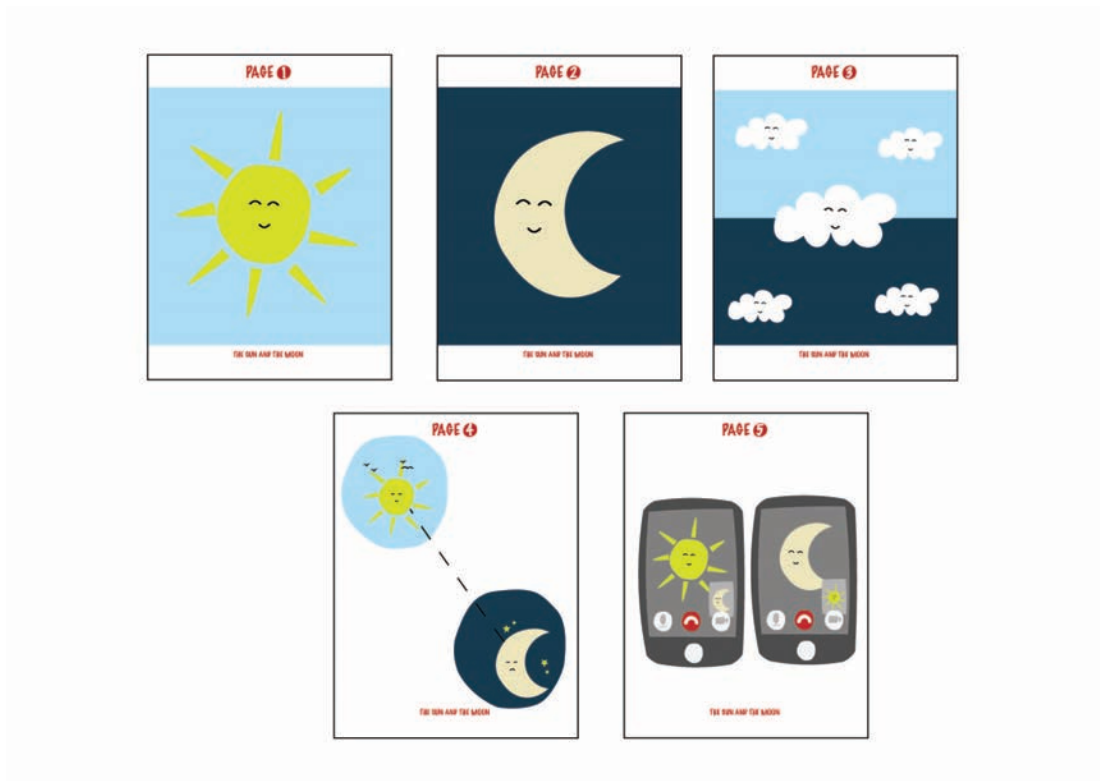
B. Drawings of Family B. as an example

C. Survey for parents - English

Motivation and Vision Questionnaire

This questionnaire has not "right" or "wrong" answers. The results, will be used only for research purposes so please give your answers sincerely to ensure the success of this project.

Thank you very much for your help!

How much you agree or disagree with the following statements?

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree	
1	2	3	4	5	

Intended effort

I am prepared to make an effort in learning English	1	2	3	4	5
I think that I am doing my best to learn English	1	2	3	4	5
I would like to spend lots of time in contact with English	1	2	3	4	5
If I could have access to English-Speaking media I would try to use it often	1	2	3	4	5

Ideal L2 self

I imagine myself as someone who is able to speak English	1	2	3	4	5
I can imagine myself living abroad and using English effectively for communicating with the locals	1	2	3	4	5
I can imagine myself speaking English with international friends or colleagues	1	2	3	4	5
I can imagine a situation where I have a conversation with my children in English	1	2	3	4	5

Ought-to L2 self

Learning English is necessary because people surrounding me expect me to do so	1	2	3	4	5
It will have a negative impact on my life if I don't learn English	1	2	3	4	5
If I fail to learn English, I'll be letting other people down	1	2	3	4	5
Knowing English is important to me to gain the approval of my peers/teachers/family/boss	1	2	3	4	5

Attitude to Learning English

I like the atmosphere of using English through Oyako	1	2	3	4	5
I find learning English really interesting	1	2	3	4	5
I really like the process of Oyako for learning English	1	2	3	4	5
I think time passes faster while using Oyako with my children	1	2	3	4	5

Visual sensory style

I remember something better if I draw	1	2	3	4	5
I make drawings in my notes to remember important material	1	2	3	4	5
I understand better by reading instructions the by listening to instructions	1	2	3	4	5
I use colour-coding to help me when I learn or work	1	2	3	4	5

Imagery capacity

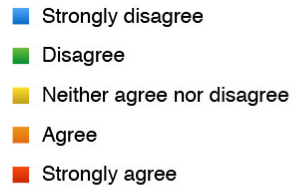|					
When I am thinking, I often have visual images rather than thoughts in my mind	1	2	3	4	5
When reading fiction I usually have a vivid mental picture of the scene that has been described	1	2	3	4	5

D. Survey for parents - Japanese

このアンケートは、正解を問うものではありません。回答内容は、研究目的のみに使用しますので、本プロジェクトのために率直な回答へのご協力をお願いいたします。ご協力に心から感謝いたします。
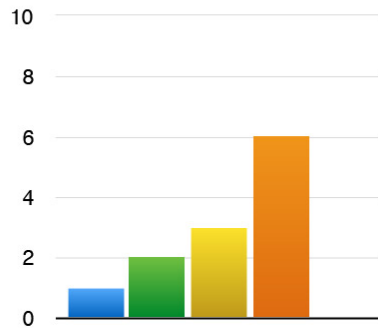
あなたが質問に対して同意するか、同意しないか考えて回答してください。

全く同意しない	同意しない	どちらでもない	同意する	強く同意する
1	2	3	4	5

1-

英語を学ぶために様々努力をしている	1	2	3	4	5
私は英語を学ぶためにベストを尽くしていると思う	1	2	3	4	5
出来れば英語に触れる機会がたくさん欲しい	1	2	3	4	5
もし英語のメディアを見られる機会があれば、英語学習に活用したい	1	2	3	4	5

2-

私は自分が誰かと英語で話す姿を想像できます	1	2	3	4	5
私は海外で暮らし、地元の人と英語で積極的に会話をしている自身の姿を想像出来ます	1	2	3	4	5
私は海外の友達や同僚と英語で会話している姿を想像出来ます	1	2	3	4	5
私は自分の子供と英語で会話する状況を想像出来ます	1	2	3	4	5

3-

私の周囲の人たちは、私が英語が話せることを期待しているので、英語学習は必要だと思う	1	2	3	4	5
もし私が英語を学習しなかったら、私の人生はあまり良いものにならないかもしれない	1	2	3	4	5
もし私が英語をきちんと学ばなかったら、周囲の人をがっかりさせてしまうと思う	1	2	3	4	5
私の仲間/先生/家族/上司から信頼を得るために、英語を学ぶことは私にとって重要です。	1	2	3	4	5

4-

Oyakoを使って英語を学習することは良いと思う	1	2	3	4	5
英語を学ぶことが楽しいことだと今回感じた	1	2	3	4	5
私はOyakoを使って英語を学ぶプロセスが好きです。	1	2	3	4	5
Oyakoを使って英語を学んでいると時間が早く経つように感じた。	1	2	3	4	5

5-

メモを取った方が記憶に残る	1	2	3	4	5
大切なことはノートに書き留めるようにしている	1	2	3	4	5
指示を言葉で聞くよりも、文字で読んだ方が理解出来る	1	2	3	4	5
私は学習や仕事で色のコーディングを活用しています	1	2	3	4	5

6-

考え事をする時、私は心の中で考えるよりも、視覚的なイメージを具体的に想像することが多い	1	2	3	4	5
物語を読むとき、記述されているシーンの具体的なイメージを頭の中で想像している	1	2	3	4	5

E. Survey results

INTENDED EFFORT

- ■ Strongly disagree
- ■ Disagree
- ■ Neither agree nor disagree
- ■ Agree
- ■ Strongly agree

I am prepared to make an effort in learning English

I think that I am doing my best to learn English
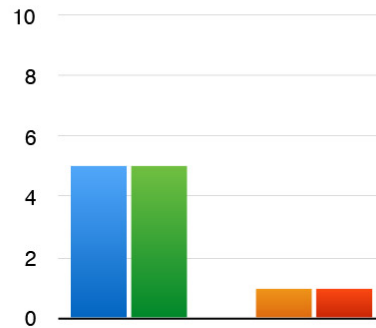
I would like to spend lots of time in contact with English
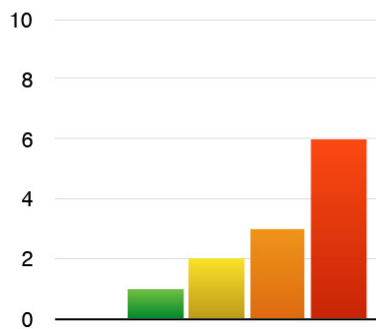
If I could have access to English-speaking media I would try to use it often

IDEAL L2 SELF

■ Strongly disagree

■ Disagree

■ Neither agree nor disagree

■ Agree

■ Strongly agree

■ No answer
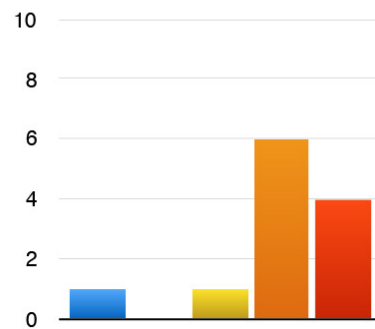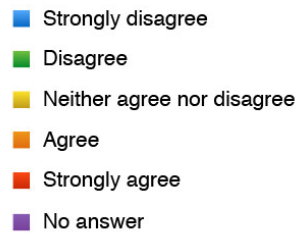
I imagine myself as someone who is able to speak English

I can imagine myself living abroad and using English effectively for communicating with the locals
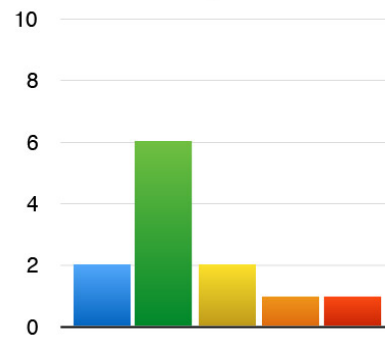
I can imagine myself speaking English with international friends or colleagues
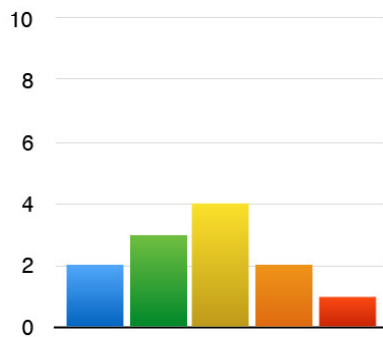
I can imagine a situation where I have a conversation with my children in English
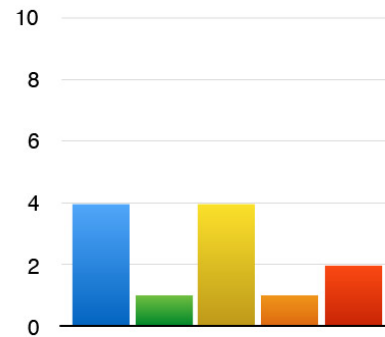
OUGHT-TO L2 SELF

- ■ Strongly disagree
- ■ Disagree
- ■ Neither agree nor disagree
- ■ Agree
- ■ Strongly agree

Learning English is necessary because people surrounding me expect me to do so
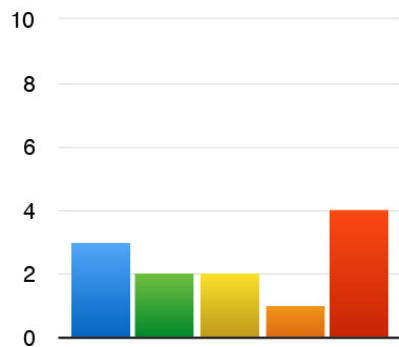
It will have a negative impact on my life if I do not learn English
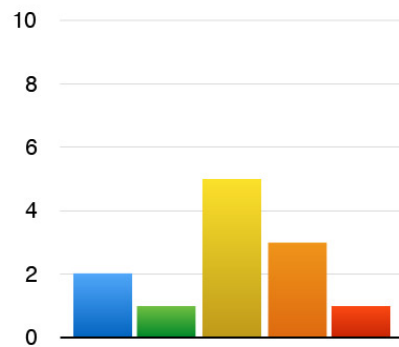
If I fail to learn English, I will be letting other people down
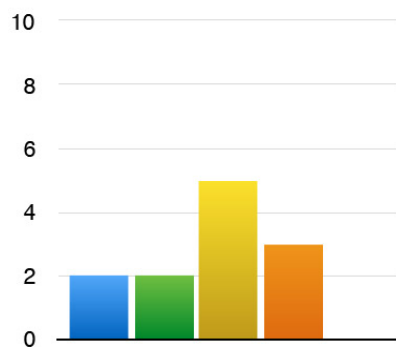
Knowing English is important to me to gain the approval of my peers/teachers/family/boss
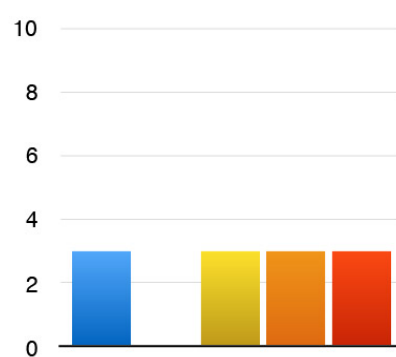
ATTITUDE TO LEARNING ENGLISH

- ◼ Strongly disagree
- ◼ Disagree
- ◼ Neither agree nor disagree
- ◼ Agree
- ◼ Strongly agree

I like the atmosphere of using English through Oyako
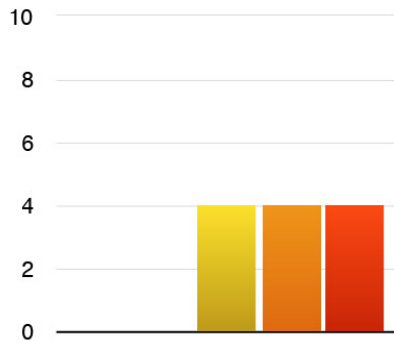
I find learning English really interesting
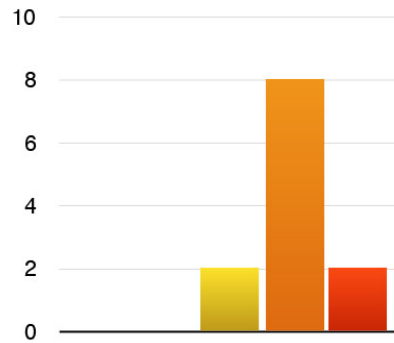
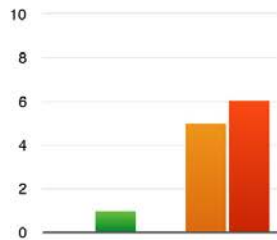**I really like the process of Oyako for learning English**
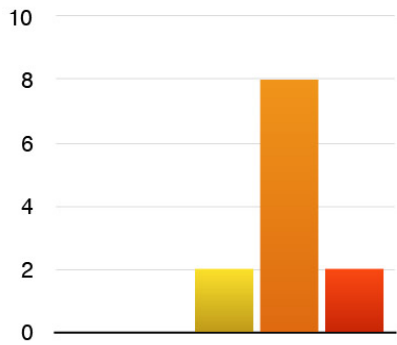
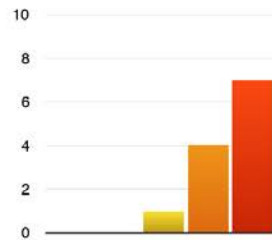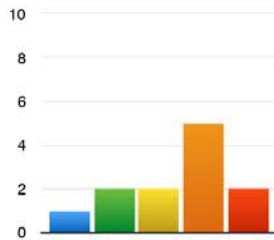**I think time passes faster while using Oyako with my children**

VISUAL SENSORY STYLE

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree
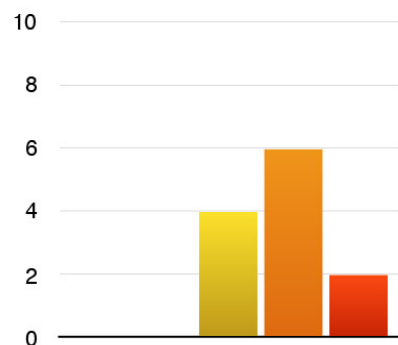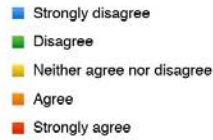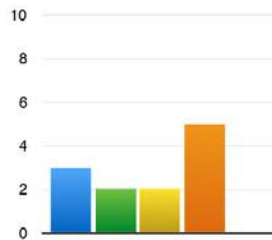
I remember something better if I draw

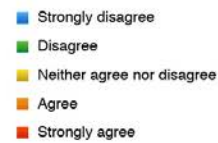**I make drawings in my notes to remember important material**

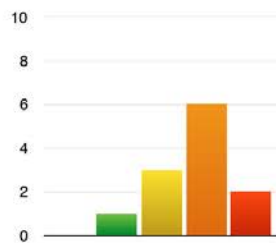**I understand better by reading instructions then by listening to instructions**

I use color-coding to help me when I learn or work

IMAGERY CAPACITY

- Strongly disagree
- Disagree
- Neither agree nor disagree
- Agree
- Strongly agree

When I am thinking, I often have visual images rather than thoughts in my mind

When reading fiction I usually have a vivid mental picture of the scene that has been described