

Joseph Evans

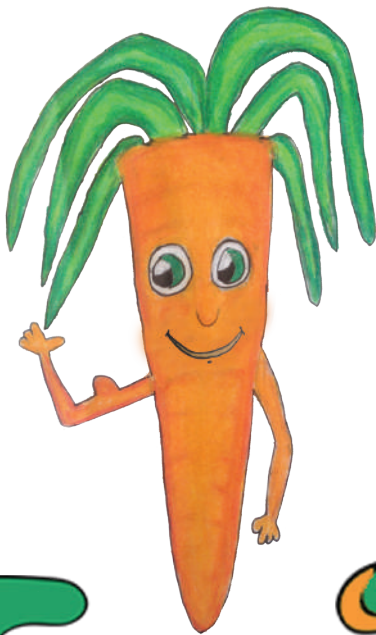
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MFA Web Design

New Media

Eco Timmy

Technology



Eco Timmy

Learning to help the environment

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Eco Timmy

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Autobiography

Joseph Evans

About me

My name is Joseph Evans and I am originally from Florida. I lived in many places throughout Florida: North, Central, and South. I spent most of my childhood (5-15) in a small town called Sopchoppy approximately 500 people. From 15-19, I lived in Satellite Beach where my father and grandparents lived and I stayed until college.

Undergrad

I received my AA at Tallahassee Community College. Soon after completing my AA, I decided my Bachelor's would be in Graphic Design from FAU in Boca Raton. I really didn't know much about Graphic Design at the time I just knew I liked creating things. I always had strong sense of individuality and I wanted to express myself so art school was for me. While at FAU I found a job as a Graphic Designer for FAU Campus Recreation designing signage, logos, photography and, most importantly the Campus Rec Magazine. I found it really cool that students were walking around campus looking at the magazine I designed.

California

When I graduated from FAU I knew I wanted to move to California. The main reason I wanted to move to California was the surf. I had grown up surfing my whole life and in California you can surf almost every day. I had friends in San Diego and I had visited a couple times so that made the move easier. The summer after I graduated, I packed my things and drove across country to San Diego. When I arrived I was in search of a job as a graphic designer. The job market for graphic designers in San Diego was very competitive and all I found were people trying to take advantage of me. That's when I decided that I needed more education to be competitive in the field that I loved. My web skills were weak at this point and every job I applied for asked for "web experience." I felt my design skills were good and I needed to work on my web design skills. I looked around for grad schools in California along the coast and finally decided on The Academy of Art.



Academy of Art

I heard of The Academy of Art when I was back in Florida and knew it was a quality program. It was choosing between the Graphic Design and Web Design New Media Programs. The Web Design New Media Program was the right fit for me. During my time at The Academy of Art I feel I have learned industry standards, and can find work after I complete my MFA. I recently went to an AIGA conference in San Francisco Designing for Sustainability, which is what gave me the inspiration for my thesis. I learned that design can be an avenue to help people. In the future I want to help people with designing for good.

Resume

Joseph Evans

Joseph R. Evans
30 Paloma Ave. San Francisco 94127
Cell: (415) 312.0353 Email: jevans1983@gmail.com
joeyevansdesign.com & joeybobby.com

Objective

Art Director – multimedia and visual aesthetics professional with UX, UI in mind

Education

Academy of Art, San Francisco, CA, M.F.A. in Web Design & New Media expected graduation 2015
Florida Atlantic University, Boca Raton, FL, B.A. in Graphic Design 2009
Tallahassee Community College, Tallahassee, FL, A.A. 2005

Professional Experience

Surf Program Manager – Adventure Out, LLC - San Francisco, CA
2011 – Present

Operates the largest surf school in Northern California; instructs over 2000 beginner/novice surfers each year.
Grew the surf program by 25% with the use of social media and online advertising. Schedules classes and manages a group of instructors that create a safe and happy environment with zero complaints in the past year.

Art Director – Pine Forest Camp - Greeley, PA
June 2010 – August 2010

Educated campers ages 8 - 17 in fine arts, such as ceramics, screenprinting, drawing, etc. Facilitated a team of artists to teach campers the proper techniques in art. Partnered with camp owners and directors to create various group projects for the campers and camp events

Graphic Designer/Photographer - Florida Atlantic University Campus Rec - Boca Raton, FL
August 2007 – May 09

Created all signage, anything that the director of campus rec needed. Most of my time was spent creating the FAU Campus Rec magazine. Other tasks included but not limited to creating logos, photography, signs for upcoming events.

Assistant Manager & Graphic Designer – Sports Beat/Sandal Beat - Tallahassee, FL
August 2003 – July 2006

Successfully translated visual effectiveness through use of conceptual design. Collaborated with creative team & introduced new merchandise throughout the 5,000 square foot store. Performed marketing strategies and ventures that earned the company extensive capital.

Creative Experience

Multimedia

UI, UX, web, photography, videography, video and sound editing

Print

Magazines, brochures, manuals, posters, invitations, logos, stationary, signage

Social Media

Facebook, Twitter, LinkedIn, Google+

Technical Skills

Platforms

Mac OSX Mavericks, Windows XP

Applications

All of the CS6 Creative Suite, Microsoft Office Suite, Logic Pro, Sublime

Coding – HTML, Javascript, Famo.us, JQuery, CSS

Elevator Pitch

It's important

The 3 R's

The app Eco Timmy is dedicated to teaching kids ages (3-5) and their parents about reducing, reusing and recycling. Kids and parents don't know the best practices for reducing, reusing and recycling.



Sustainability

This app will help kids and their parents learn how to play their part in our earth's sustainability issue.



Awareness

Awareness is very important and will play a large part in helping the environment.



Thesis Abstract

It's worth it



Problem

Our our world has a big problem as people use too many things only one time. Some items end up in landfills, some end up in the oceans and can kill animals, which makes our earth toxic. There are too many problems to mention with pollution, but with this app we can help make a difference in our kids' actions and future generations to make our earth a healthy place.

Solution

The solution is to teach kids good habits at a young age. It starts with the 3 R's: reduce, reuse and recycle. By teaching kids one "R" at a time we can make all can make a difference.

Age

My audience is aged 3-5 because it is a very influential time in life. Most people have their first memories during this time. This age is also very influential for parents and whomever interacts with kids.

Teaching

This app will teach the 3 R's reduce, reuse and recycle. If everyone were more conscious of the 3 R's our pollution levels would be much lower. This app will teach kids how to read throughout the app. It will be a fun interactive book for both kids and parents to enjoy.

Important

This app is important because climate change and pollution can no longer be ignored. The 3 R's will help our earth and we can make our environment sustainable.

Unique

This app is unique because there are three steps to the interactive book. There is an instructional video which is also like a cartoon. The instructional video shows the user how to successfully win the game. The next is to play the interactive game which gives the user the idea that they are inside the scene and the outcome is up to them. After they complete the interactive game they are prompted to a congratulations video which will encourage the user to either play again or continue to the next level. The congratulations scene will show the rest of the characters very happy after the user completes the scene.

Worth it?

This app is worth the effort because it will help with awareness. I will also create a physical book along with other merchandise. If the kids enjoy the game their parents may buy them merchandise that goes along with it.

Conclusion

Overall this app will be something that kids will enjoy. Hopefully the app will help create a lifestyle for kids and parents to promote a sustainable earth for generations to come.



Subject

Figuring out my subject matter was fairly difficult. Teaching kids to have fun while learning about sustainability was a very tough task. Many professors think of this topic as very challenging and thought that this was admirable idea, but very hard to achieve.

Approach

My approach to the app was to think about what the user needs. I thought about what I enjoyed as a kid and I started paying attention to kids around that age. I went to toy stores, watched kid shows, looked at apps and websites that were made for kids ages 3-5.

Questions

I asked parents questions about what their kids enjoy. Children ages 3-5 body language is very easy to interpret; either they like it or they don't. If kids do not like something they won't use it or play with it. If they enjoy something they will play it repeatedly.

Goals

Meeting my personal goals was also difficult. Learning about the specific users was a lot of trial and error and creating a solution. I had to accept that this project was and will be an ongoing project that will change until the day of my presentation due to user research. I think that you can never have enough feedback from users because any feedback is the best way to improve any project.

Research

Research was a key element in meeting my goal to figure out how to entertain kids from 3-5. To start, I looked at all the successful children's cartoons from when I was a kid, such as Disney, Hannah Barbera, Sesame Street, and Schoolhouse Rock. I realized there is a science to reaching the kids. Characters need life and a story. After that, everything else needs to be designed around them. Being open to others ideas also helped.

Challenges

I met many challenges throughout my thesis. One of the hardest was which coding language to use. I was strongly influenced by Professor Ben Hulan to use Famo.us and it has been very useful in making my characters have a bit of animation. It also makes my hand drawn illustrations come to life.

Education

My time at AAU has been long, but great. I have learned many applications and have realized that when designing do not design something because it looks cool. Design something because it works for the who you're designing for make sure it solves a problem. I've learned that the most important part of design comes from research and user testing (do this before anything). I've also learned how to work in groups as the leader and as a team member throughout the design process. Overall it was a great experience with many talented, smart and influential people along the way.

Proof of Concept

Use Case: Primary 1 Zoey

Task

Zoey has seen her friends playing Eco Timmy and wants to try it for herself. She watches the instructional cartoon to learn how to go on to the next scene. She follows along with the text and verbal instructions on what to drag or tap next.



Tap Timmy the Carrot



Tap play



Watch instructional cartoon



Drag the red can



Get verbal and written reward



Drag the blue bottles



Get verbal and written reward



Drag the yellow cereal boxes



Get verbal and written reward

Proof of Concept

Use Case: Primary 2 Luca

Task

Luca has completed the recycling on the farm scene and wants to play the next chapter. He listens to the verbal instructions and follows the text.



Drag the seed



Get verbal and written reward



Tap Beatrix's watering can



Animation occurs, Tap Timmy



Tap the Sun



Animation occurs, Tap Timmy



Animation occurs, Tap Timmy



Animation occurs, unlock new character

Proof of Concept

Use Case: Secondary 1 Margie

Task

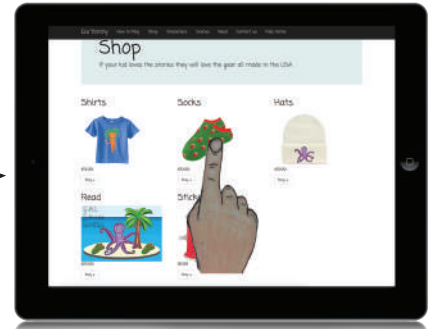
Margie notices that her son really likes Eco Timmy. She decides to check out the Parents site. On the site she notices some socks that she knows he will like she purchases 2 pairs.



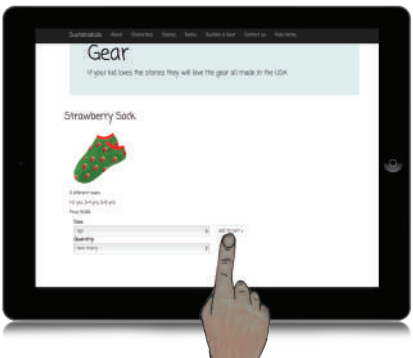
Taps parents page, answers question



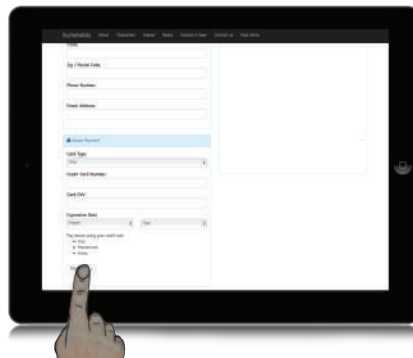
Taps shop



Taps socks



Taps quantity and size



Fills out payment and taps submit



Receives receipt



Prints receipt

Use Case: Secondary 2 Kelly

Task

Margie wants to check out Eco Timmy to see if it is a good choice for her son. She wants to know how Eco Timmy works.



Taps parents page, answers question



Taps how to play



Taps play video

Strategic Process

One of a kind



Unique Positioning Statement

My app Eco Timmy is an interactive storybook game for kids, ages 3-5. The app will teach them how to reuse, reduce and recycle, while also helping them learn how to read. The fun and entertaining illustrated characters, videos and interactive scenes teach kids valuable ways to help the environment. This app is unique because kids feel as though they have a choice in their actions while playing the game, which actually helps them develop positive and sustainable habits. By combining video and interactive scenes it keeps the kids interested so they continue to learn.

Strategic Process

Key Research: Competitor 1

Space Racers



Description

Responsive web page and app
Space Racers is a new, original, half-hour animated series for preschoolers that follows young spaceship cadets at the Stardust Bay Space Academy as they soar through the Solar System. Young viewers will learn about the power of scientific investigation and observation, the wonders of space exploration, and the importance of working together as a team, all with fun and engaging characters they can relate to.

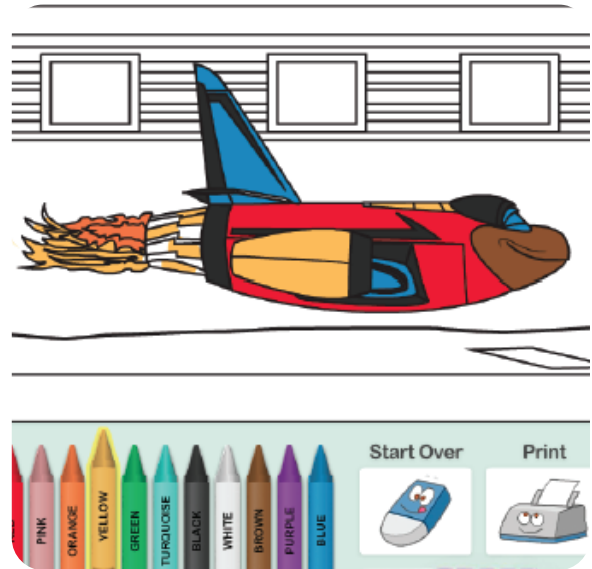
Pros

Responsive, fun characters, fun colors, sound effects, special effects, cool that it has things to print and color with. Has bios on each of the characters.

Cons

Not enough games and those that they have don't match the episodes logo.

This game works on both desktop and touchable device and is very responsive. The idea is to catch the correct item with the basket. One problem is you never lose or gain any points or rewards and it is also very repetitive, which may lose kids' attention.



Digital coloring book

They have a digital coloring book that was really great. I even found myself coloring in it.



Videos

Very good animation that captivates the storyline and was also educational. For kids ages a little older than my target audience.

Key Research: Competitor 2

Recyclaire



Description

Claire is a little girl who really cares about the environment and knows how important it is to make to most of our planet's resources. This is why she always looks for fun ways of reusing them.



When she wants to recycle **GLASS**, she cleans her brushes in a jam jar.

Pros

Good sound effects, appropriate illustrations for children 3-5 years old and it has a nice narration. You can pick the scene and it teaches good sustainability habits. Read to me option and navigation is easy



To save **PAPER**, Claire draws on one side and then on the other.

Fun

Has fun projects that reuse items around the house, like making your own robot costume with Claire using old cardboard boxes or painting plastic bottles and using them for bowling.



After recycling all day long, Claire has a plan. "Let's go to the **PARK**, daddy! Come on!"

Cons

There is no interactivity with the scene, only with buttons. The words don't follow the narration and there are no rewards. No tasks and only for tablets. No curriculum around it and logo doesn't fit with the app. Overall, the book takes too long and you can't skip pages, which basically is like watching a video.

Strategic Process

Key Research: Competitor 3

Trash it



Description

Help sort and recycle the trash at the recycling center. In Trash it you are in charge of sorting at the recycling center. The trash has different colors and must be picked up and placed in the correct trash can.

Pros

- Easy to use
- Use colors to identify pieces of trash
- Some what kid friendly illustrations
- Nice calm instrumental music

Cons

- Only teaches color coordination
- No reward
- User can only lose
- Encourages sharing to Facebook, but kids that age don't have Facebook
- There are no instructions for kids
- Words are difficult for a kid to read
- No sustainability elements



Key Research: Inspiration 1

Lumi Kids



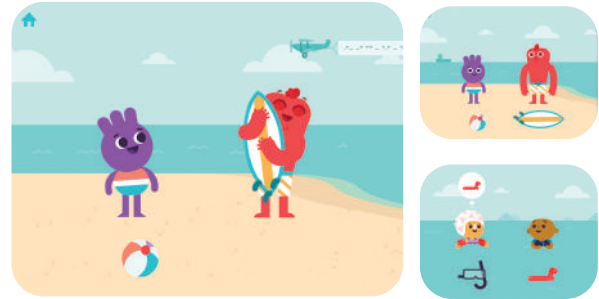
About

LumiKids Park is a digital playspace for kids to explore concepts through intuitive & adaptive activities. Their team partnered with academic researchers to learn more about the impact of these digital activities for children but have not yet completed any studies.

Kids Play Parents Learn

Intuitive for young learners to use by themselves, putting kids in control with no text or voice-over instructions

Adapts to each child's ability level, keeping kids challenged and engaged with no feelings of failure
As a parent, gain insight into your child's LumiKids play and receive tips on how to continue practicing these skills with your child



Awards

- Winner of 2015 KAPi Award: Best App for Younger Children
- Winner of Children's Technology Review Editor's Choice Award for Excellence in Design
- Winner of Mom's Choice Gold Award
- Named one of The Guardian's Best iPad Apps for Kids of 2014
- Winner of 2015 National Parenting Publications Awards - Gold Award

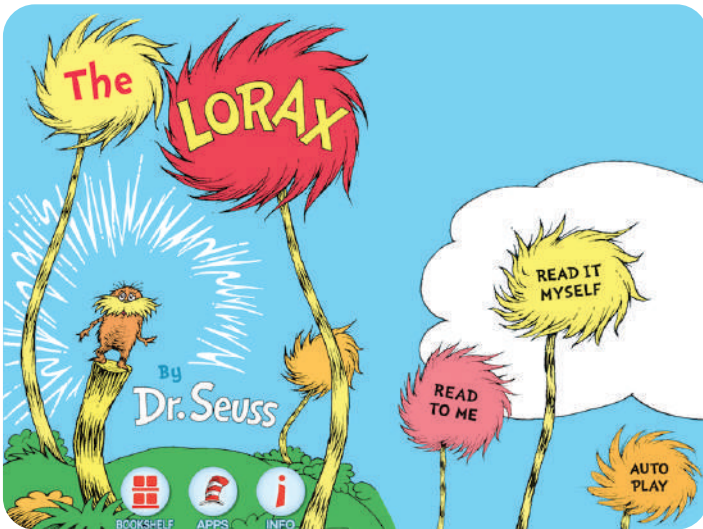
Pros

- Very interactive as almost everything in the scene is touchable
- Sound effects and music are good
- Games within the interactive scene
- Teaches kids colors, shapes, quantities
- Illustrations are age appropriate
- Very repetitive but a new step is added throughout to add difficulty
- Gives rewards when finished
- Many different interactions throughout the scenes
- Long game that is interactive and interesting so kids could be at it for hours
- When the interaction is a game there is a light over it.
- Teaches kids to be very creative
- Problem solving
- Creates real life scenarios but adds an extra fantasy world to it
- In order to enter the parents page you have to enter the answer to a math problem
- Teaches sharing
- Seems like it's designed with Spongebob in mind

Strategic Process

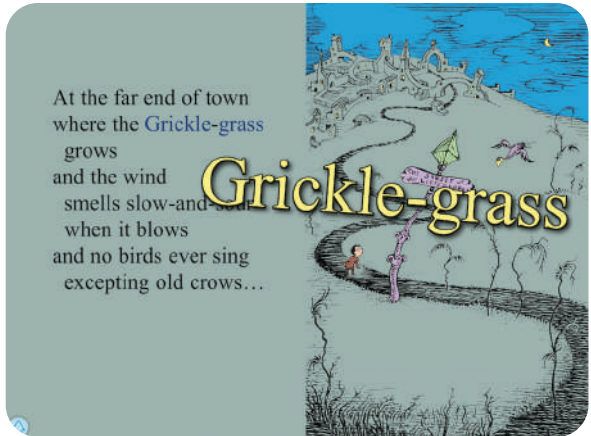
Key Research: Inspiration 2

Dr Suess The Lorax



Description

Jump inside a cautionary tale of greed and destruction in this interactive book app as the Lorax tries to save the Truffula Forest and its inhabitants from disaster at the hands of an insatiable factory owner. Explores pictures, teaches new vocabulary, and personalizes the story with user created narration.



Read to me option

User can choose whether they want to activate read to me capability. Has some cool sound effects.



Vibrant colors

Lots of bright colors on the start of the page. Really gets the audience interested.



Dr. Seuss

I've always loved Dr. Seuss' books. One of my favorite books as a kid was The Cat in the Hat.

Key Research: Competitive matrix

Competitive matrix

	Space Racers	Trash it	Recyclaire	Eco Timmy
Sound instructions		✓	✓	✓
Flow				✓
Sound effects	✓			✓
Swipe		✓	✓	✓
Touch		✓		✓
Drag/drop		✓		✓
Animations	✓	✓	✓	✓
Host		✓	✓	✓
Cartoons				✓
Sustainability			✓	✓
Game(s)	✓			✓
Parent/teacher page instructions	✓			✓
Learning	✓		✓	✓
Read to me				✓
Reward	✓			✓
App		✓	✓	✓

Strategic Process

Research: Other notable competitors 1

Jungle Adventure



Pros

The illustrations are fun and playful good sound effects and music. The logo is of the main character which most kids apps are. I like how it is scaled and the perspective works.

Cons

Overall layout feels congested and I think they colors could be a bit more vibrant. No hints to help user find the animal; the only thing that is interactive is the animals the user is supposed to find. It could be better if the other animals gave them hints. Finding the animals is fun just not interactive enough only one animal does anything.

Description

An educational and fun game for children, 2-4 years old. Beautiful graphics and fun sounds makes for a great learning experience. Objective is to find all the animals along with the jungle guide and play the jungle puzzles in four languages.

Jungle Adventure uses research-based criteria to teach children basic skills while playing with jungle characters Learning outcomes have been tested together with a team of professional content developers and a clinical psychologist to develop a great educational app for early learners



Strategic Process

Research: Other notable competitors 2

Toddler's seek and find TinyFirefighters



Description

This is a very interactive app with tons of animations and anything touched has some kind of interaction. Landing screen shows hand drawn kid firefighter logo is also kid firefighter. Very small for the iPhone so the iPad would be a better platform. Overall, good design and great animations with nice colors and illustrations.



Pros

The illustrations are fun, playful and has good sound effects and music. The logo is of the main character which most kids apps have. I like how it is scaled and the perspective works.

Cons

There is no real goal its just touch a bunch of things that animate. Probably about 100 different animations throughout the 2 scenes with fire fighters and police officers.



Strategic Process

Research: Other notable competitors 3

VeggieTales



Description

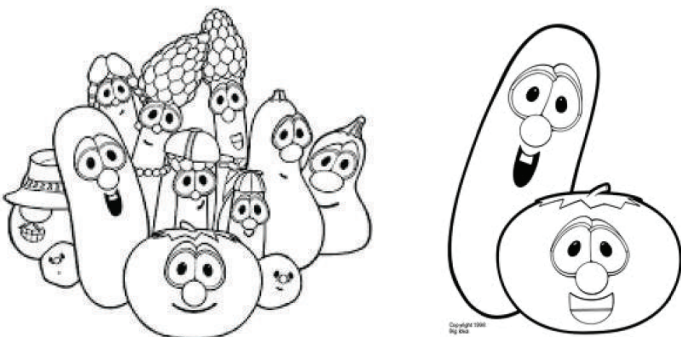
VeggieTales is an American series of children's computer animated films featuring anthropomorphic vegetables in stories conveying moral themes based on Christianity. The episodes frequently retell Bible stories that include humorous references to pop culture.

Pros

Responsive website and characters have readable bios along with a small amounts of audio. All the vegetables have individual personalities and voices that match. They are successful in keeping it fun while teaching religion. I enjoy how they have printable coloring pages with lots of videos to choose from.

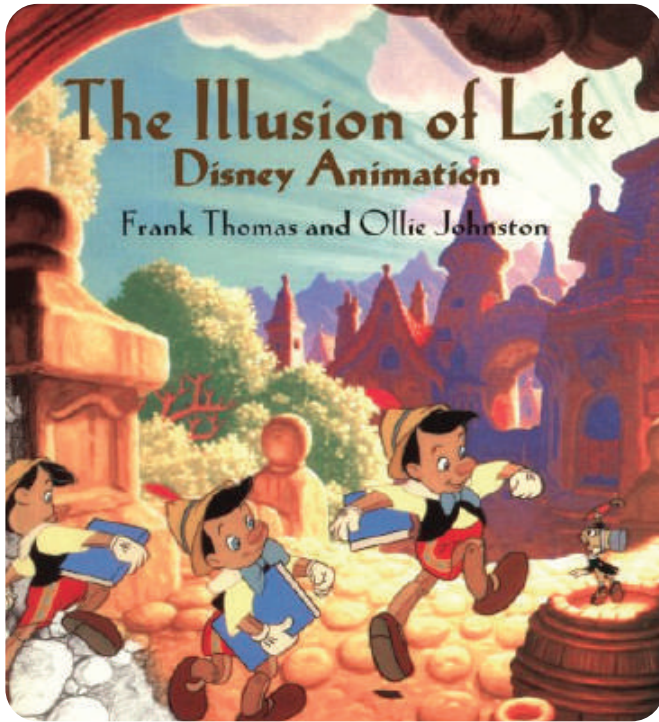
Cons

Hard to navigate as a kid and parents will have to set it up. Not enough games and the games that they have use the arrow keys that most young kids won't know how to use. Christianity focus narrows audience.



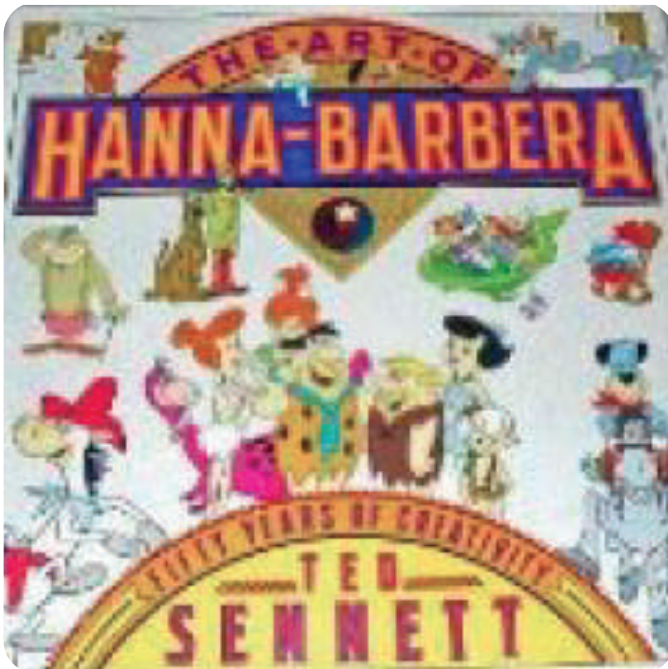
Strategic Process

Research: Helpful books



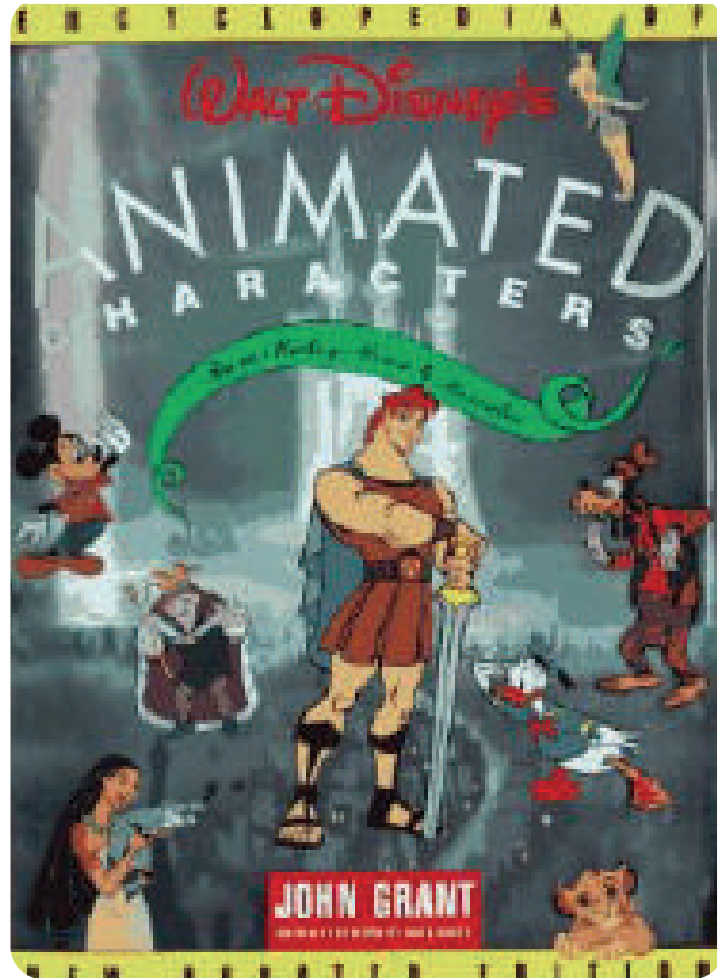
Disney's The Illusion of life

This book was a very helpful resource since it teaches how to make the character have a personality.



Hanna Barbera

This book has most of the Hanna Barbera cartoons and how they were created. It is a very inspirational book.



Disney Animated Characters

This book shows how to design your character to fit your character design you created.

Strategic Process

Research: Target audience design standards

Child Tech Research | News

One-Third of U.S. Students Use School-Issued Mobile Devices

By David Nagel | 04/08/14



sesameworkshop.
The nonprofit educational organization behind Sesame Street and so much more

Best Practices: Designing Touch Tablet Experiences for Preschoolers

Interaction and Design Tips From:

- Over 40 years of children's media testing
- 20+ years of digital platform testing
- Including more than 50+ touch screen studies



Sesame Street

This is a great resource when designing for kids since it describes the design standards for preschoolers.

Mobile Device Usage Among Young Kids

A Southeast Asia Study

Commissioned by Samsung Kids@me™

Mobile device usage

This is good to look at to see how Southeast Asian kids use mobile devices.



Technology and Play

This is also a great research tool from Technology and Play. It had a lot of great info on preschoolers usage of apps.

Zero to Eight

Young children and their internet use

August 2013



Donell Holloway, Lelia Green and Sonia Livingstone
with members of the EU Kids Online network

ISSN 2045-256X

www.eukidsonline.net

0-8 Internet usage

Another well-researched document that shows internet usages for kids from age 0-8.

Strategic Process

Research: Target audience movies, character studies

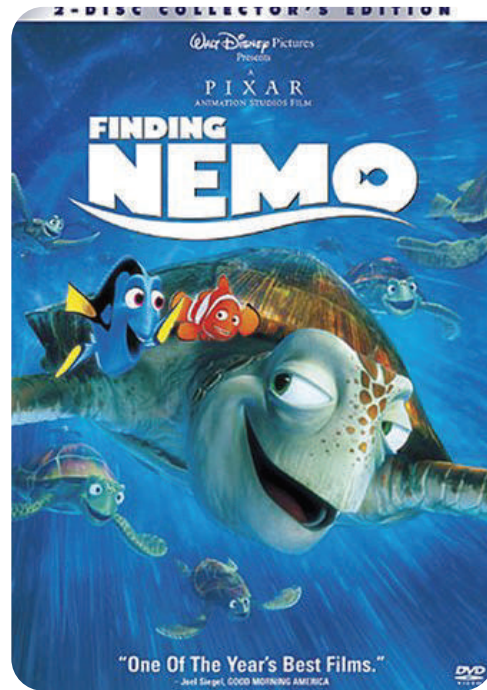
Figuring out what movies and characters were their favorite was part of my process. From my user research



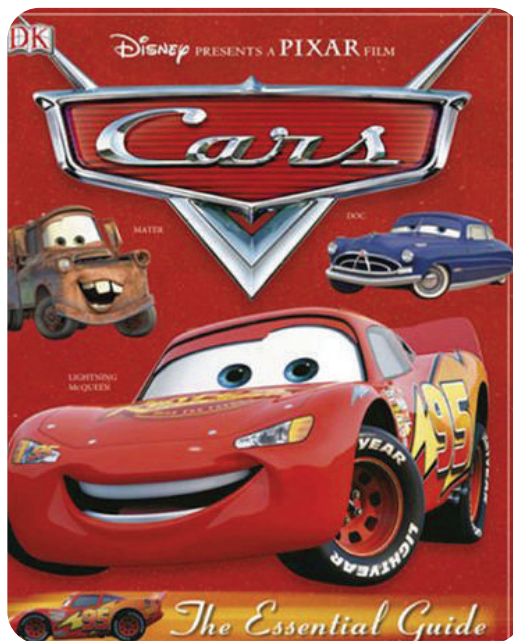
Little Mermaid



Pinocchio



Finding Nemo



Cars

Strategic Process

Research: Target audience toys and cartoons



Toys R us

Figuring out more about my target audience meant I needed to really see what was on the shelves at Toys R Us for kids ages 3-7. This was one of the reasons I changed my target audience from 3-7 to 3-5.

Cartoons

Watching cartoons that my audience was into was also great in getting into the mindset of kids.

Kid party's

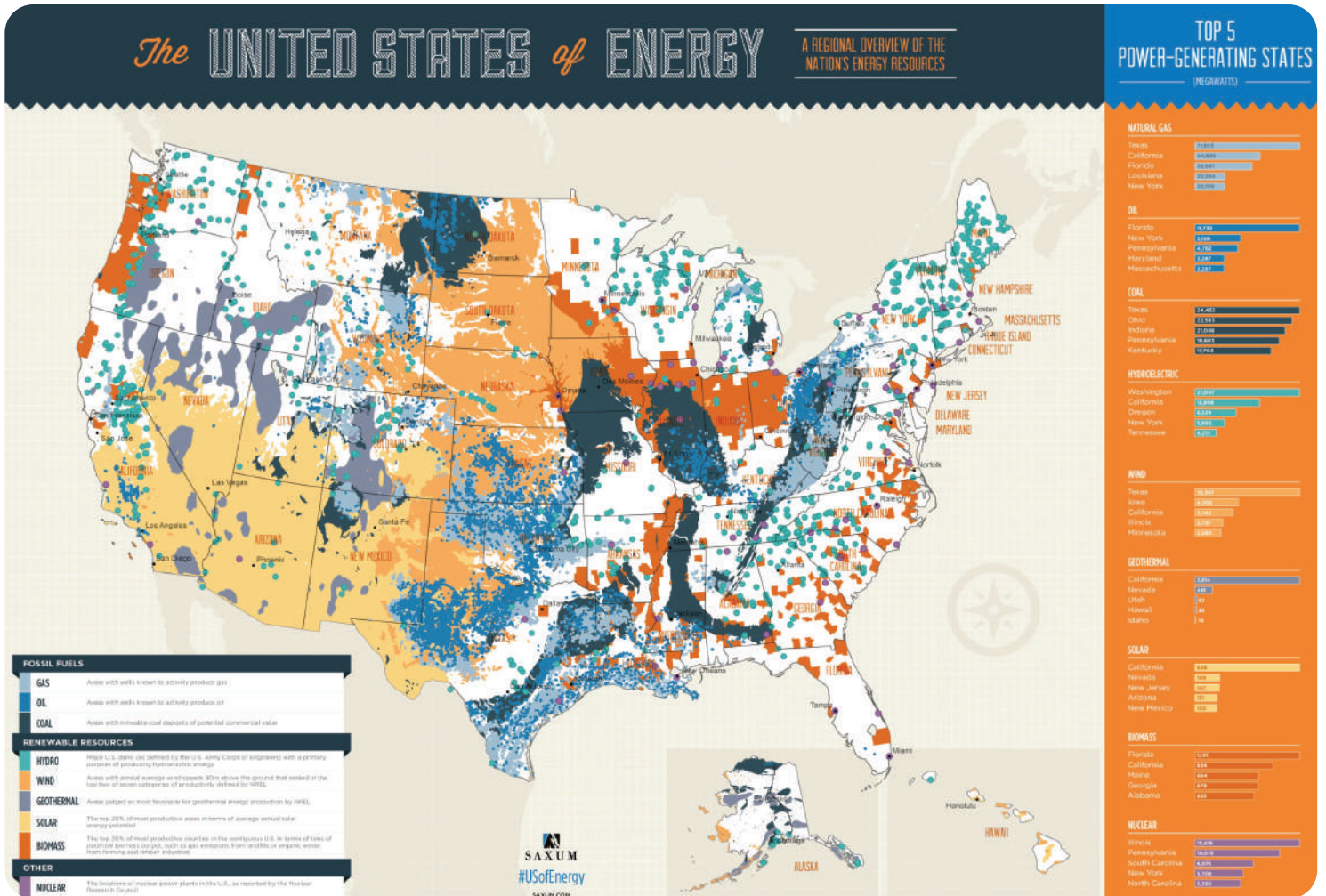
I went to a couple different kids birthday parties and looked at all the toys they were getting and which ones they really enjoyed. I also asked them what there favorite cartoons were.



Doc McStuffins

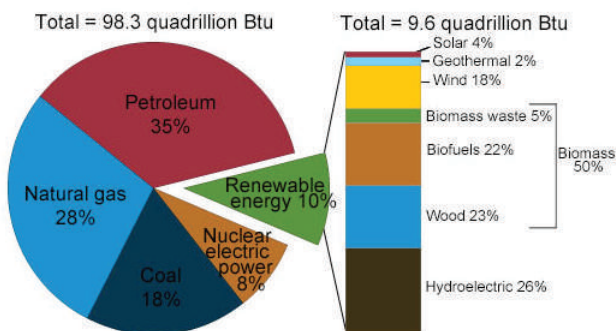
Daniel the Tiger

Research: Energy usage studies



USA Energy usage infographic

U.S. energy consumption by energy source, 2014



Note: Sum of components may not equal 100% as a result of independent rounding.

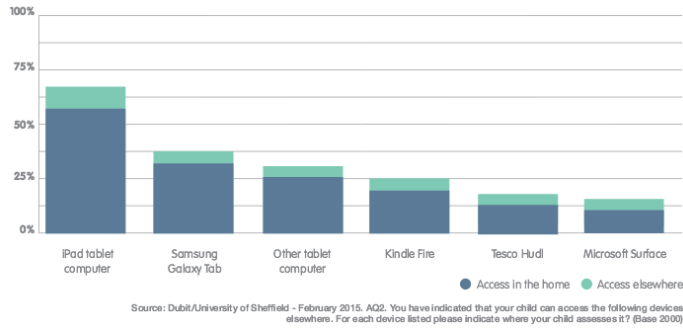
Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.3 and 10.1 (March 2015), preliminary data



US energy consumption 2014

Strategic Process Research: Target audience tablet studies

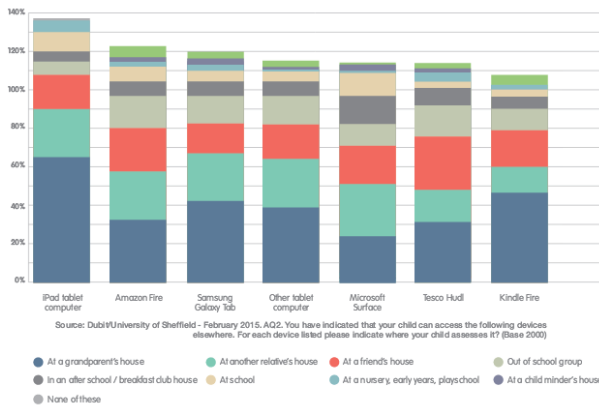
Figure 1: Access to different types of tablets



Preschool access to tablets

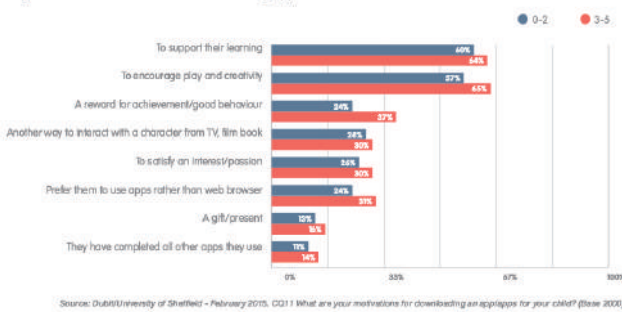
Figure 2: Children's access to tablets outside of the home

Of those who access the tablet outside the home we split out the places of access by tablet model. This shows that children of this age often access tablets in more than one place



Access to tablets outside of home

Figure 5: Parents' motivations for downloading apps for children



Parents motivation to download apps

Tablet use: competence

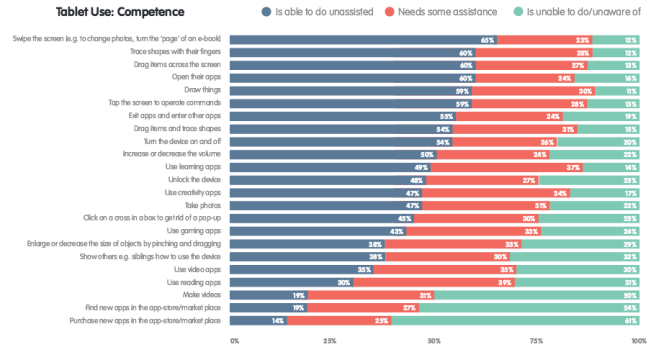
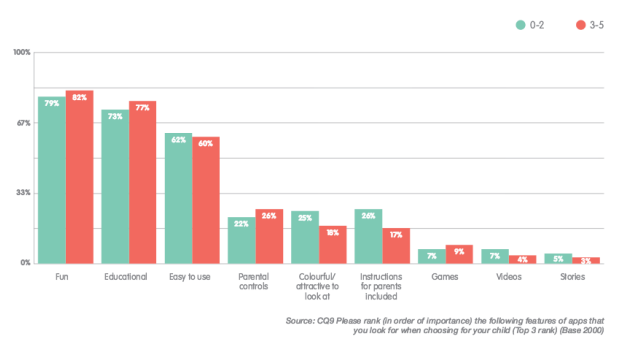


Figure 4: A comparison of what 0-2s and 3-5s can do unassisted when using a tablet



0-2 vs 3-5 years old tablet competence

Figure 6: Features considered to be important to parents when choosing apps for their children



Important when parents Purchase children apps

Strategic Process

Research: Target Audience tablet studies

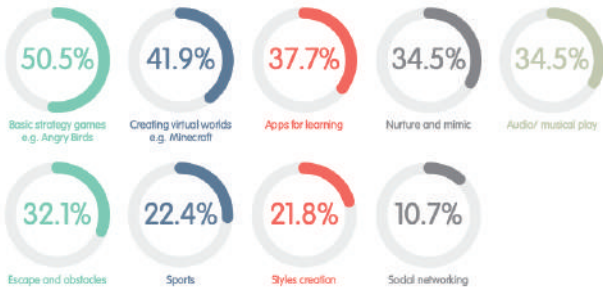
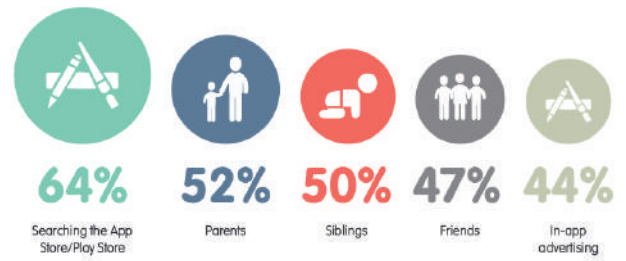
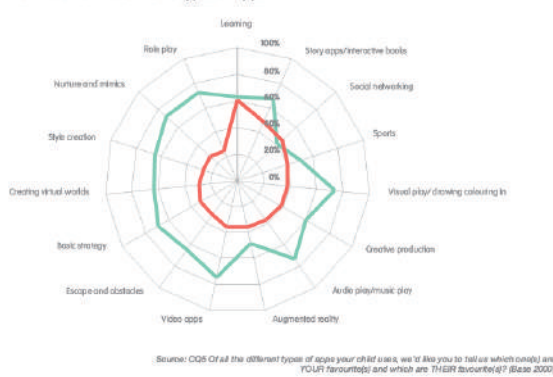


Figure 8: How children discovered new apps



3-5 years old app used

Figure 7: Parent vs children's favourite types of apps



How children discover new apps

Table 5: 3-5 year olds' use of tablets across a typical day

	WEEKDAY						
	Before 9:00am	9:00am-12:00pm	12:00pm-2:00pm	2:00pm-4:00pm	4:00pm-6:00pm	6:00pm-8:00pm	After 8:00pm
Activity	Magazines or colleges	Magazines	Search engine or browsing internet	Browsing internet, watching video or drawing	Play with/use apps for gaming	Watching video, listening to stories or browsing internet	Browsing internet
Motivation	Distraction or quiet time		Encourage play and creativity / Educational Purposes				St back experience. Encourage creativity and play
	WEEKEND						
Activity		Watch YouTube videos	Watch YouTube videos, play apps for gaming	Play apps for gaming	Watching YouTube videos, watching video, stories/ audiobooks		Browsing internet
Motivation	Distraction or quiet time	Encourage play and creativity / Educational Purposes				St back experience. Encourage creativity and play	Bedroom stories. St back experience.

Parents vs children favorite apps

3-5 y/o use of tablets on a typical day

Figure 9: Barriers for parents in downloading apps for their children

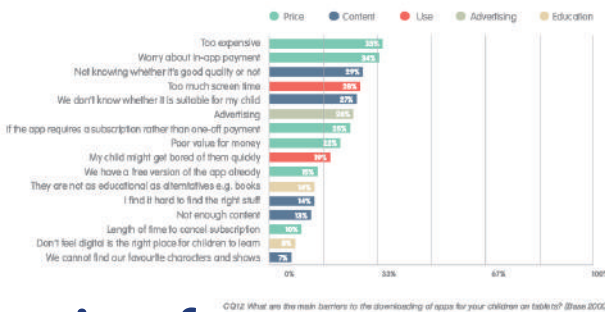
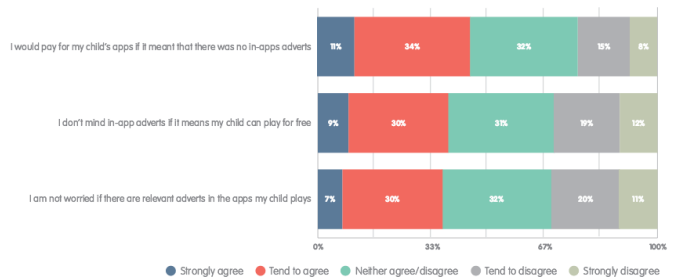


Figure 10: Level of parents' comfort with in-app advertising



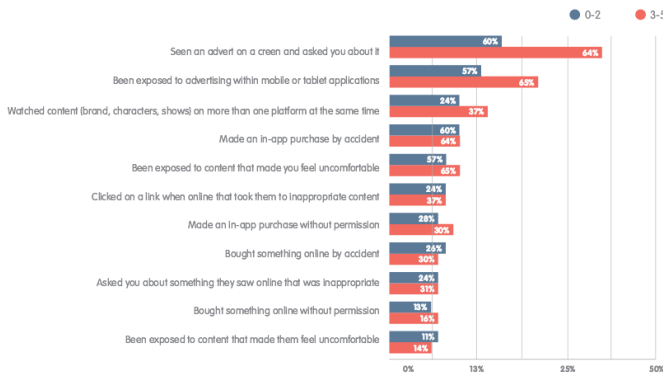
Barriers for parents downloading apps for child

Level of parents comfort with in app advertising

Strategic Process

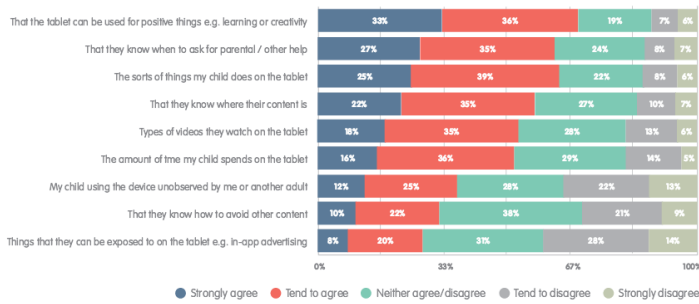
Research: Target Audience tablet studies

Figure 11: Children's experiences when using apps



Children's experience when using apps

Figure 12: Parents' levels of comfort with children's tablet use



Parents levels of comfort with children's tablet use

Research conclusion

Overall my research was the most important first step. I realized there is a big need for educational eco apps for kids.

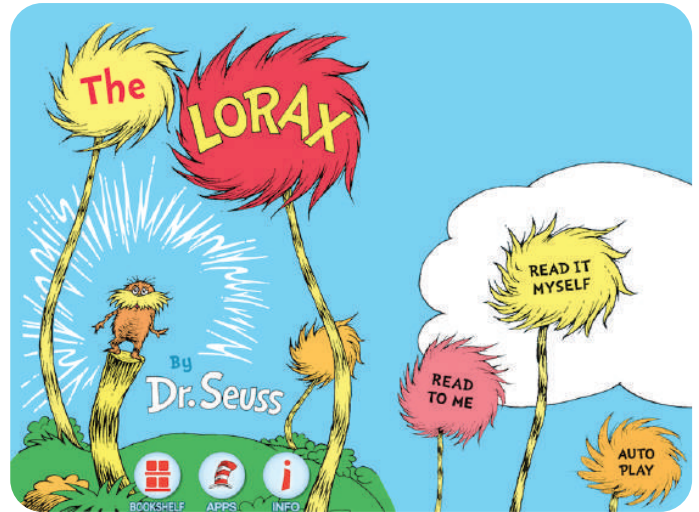
Visual Process

Visual inspiration



Toddler's seek and find TinyFirefighters

The hand drawn watercolors were a big inspiration. The shading also was an inspiration.



The Lorax

The vibrant colors and interesting compositions are a great inspiration.



VeggieTales

These characters look a lot like my character.s and many people said my characters resembled them, although I wasn't really familiar with them before I heard that.

Visual Process

Visual: Moodboards and mindmap



Farm Scene



Characters



Font



Overall



City Scene



Beach Scene Mindmap

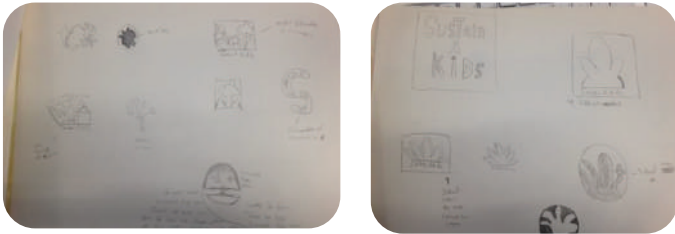


Visual Process

Logo: Beginning process

Sustainakids

Throughout the design process Sustainakids was the name of my app. After much testing the name is for an older demographic since kids 3-5 have trouble pronouncing it. After testing users I decided I would change the name to Eco Timmy.



Early sketches

Sustain a Kids
Early vector

Sustain
A
Kids

Midpoint sketch

Sustain
Kids
Early vector



App usage

Sustain
A
Kids

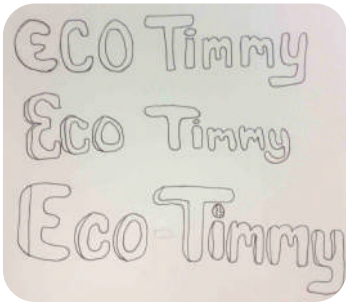
Later sketch

Visual Process

Logo: Beginning process

Eco Timmy

The change to Eco Timmy came about after realizing that most of the target audience couldn't say it. It makes sense because Timmy is the host for the storybook app.



Early sketch



Home page usage



Final usage



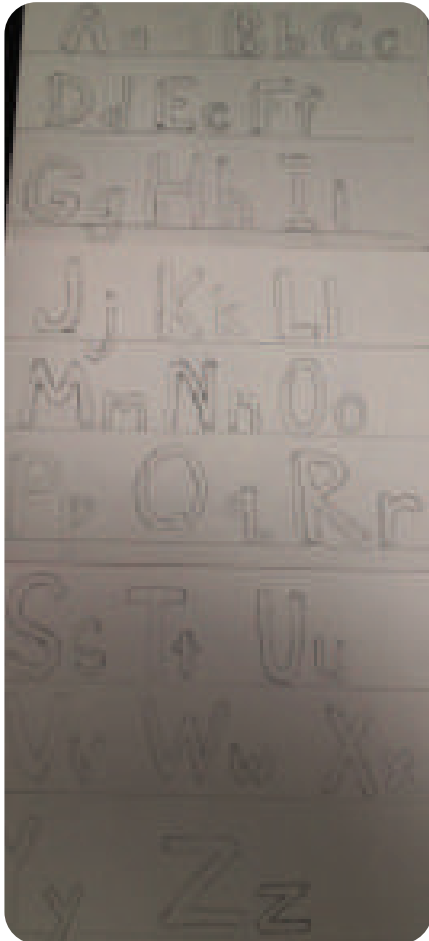
Parents page usage

Visual Process

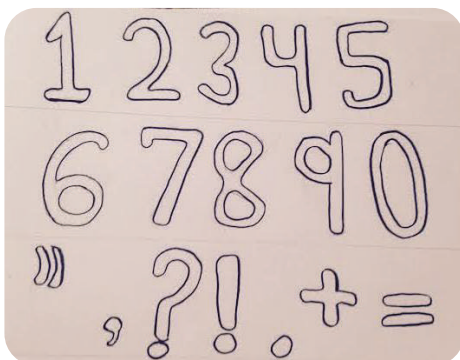
Custom .ttf font: Beginning process

Designing personalized font

After much search for fonts and deciding that I didn't want any royalty charges for when the app is done. This font is inspired by Schoolhouse Rock and Disney.



1) Pencil sketches of font



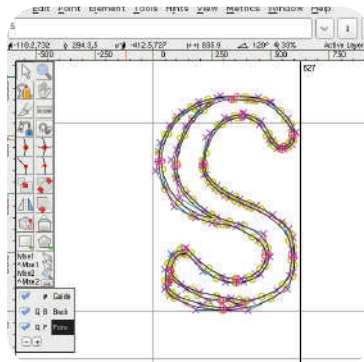
2) Numbers and punctuation



3) Font forge font app



4) Saved letter forms as SVG



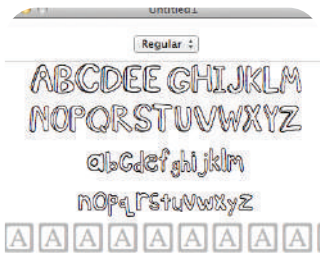
5) Letters spaced for ttf

Aa Bb Cc Dd Ee Ff Gg Hh
Ii Jj Kk Ll Mm Nn Oo Pp
Qq Rr Tt Uu Vv Ww Xx Yy Zz

6) Illustrator rough

Visual Process

Custom .ttf font: Final process and usage



ABCDEFGHIJKLM
NOPQRSTUVWXYZ

abcdefghijklm

nopqrstuvwxyz

1234567890

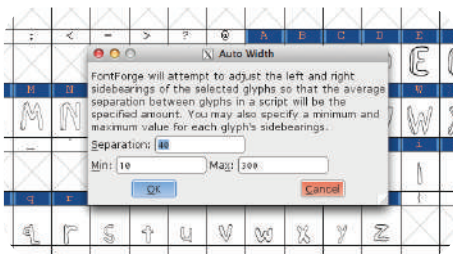
Secondary font

Called coming soon another font that was more legible but still encapsulated the brand for the parents page.

7) Created ttf



8) Coded in app version



9) Kern and lead



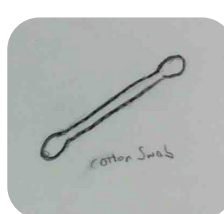
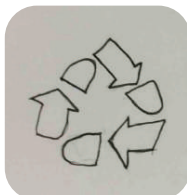
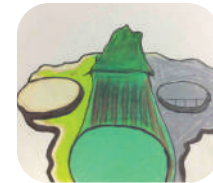
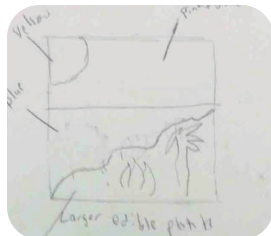
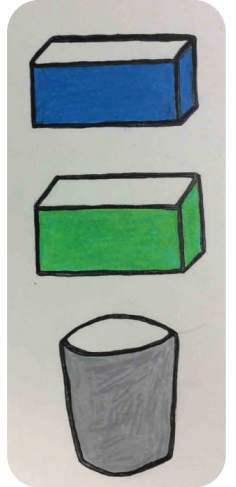
10) Version when kearned

Visual Process

Imagery: Beginning process, elements and Icons.

Traditional media

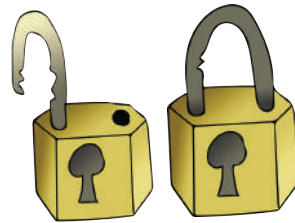
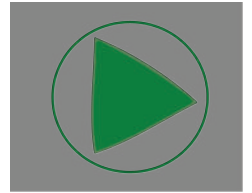
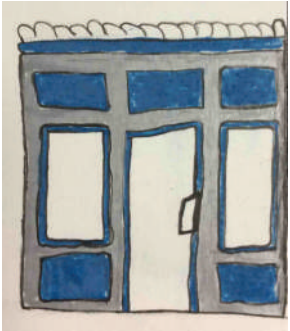
I decided to hand draw all my elements in pencil then Prismacolor and then scan. I cleaned it up in Photoshop.



Imagery: Finalized elements and icons

Traditional media

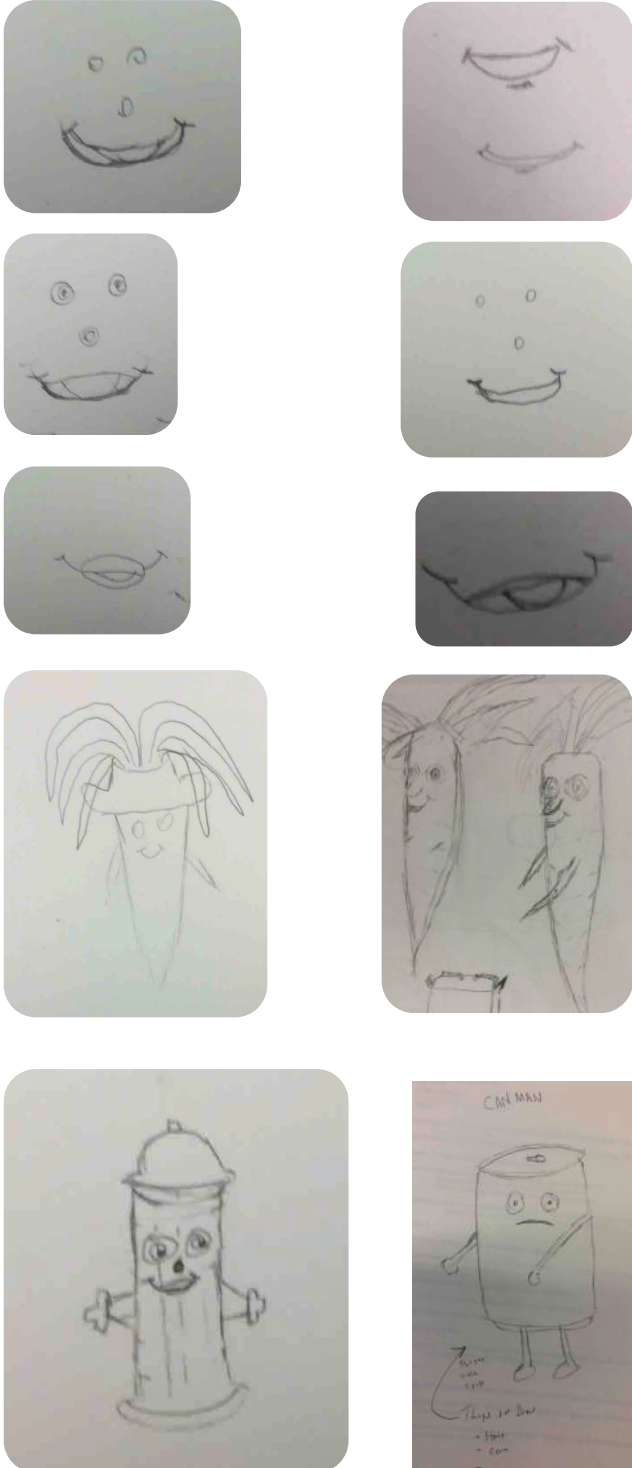
After many versions of each item my illustrations got better over time. Below are the final deliverables.



Imagery: Beginning process, elements and Icons.

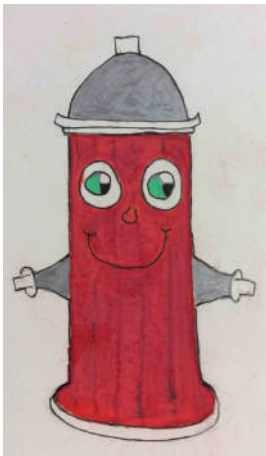
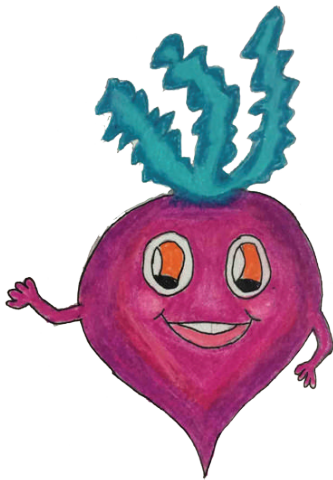
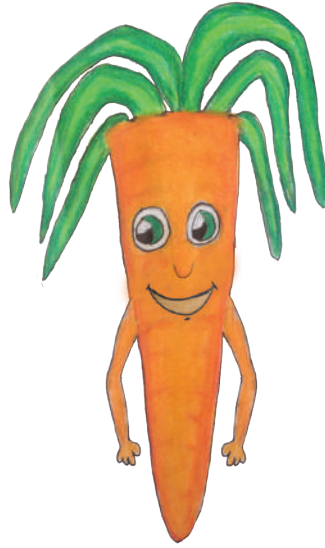
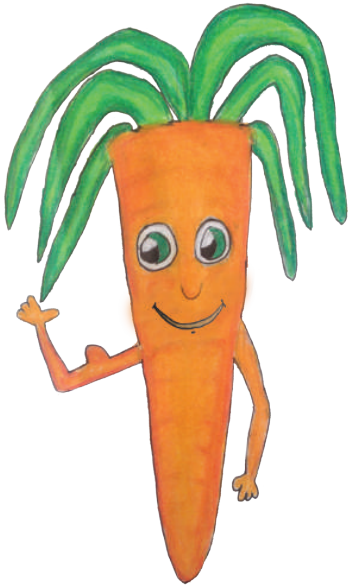
Traditional media

My character development was more than just drawing the characters it was discovering their personality by using illustration.



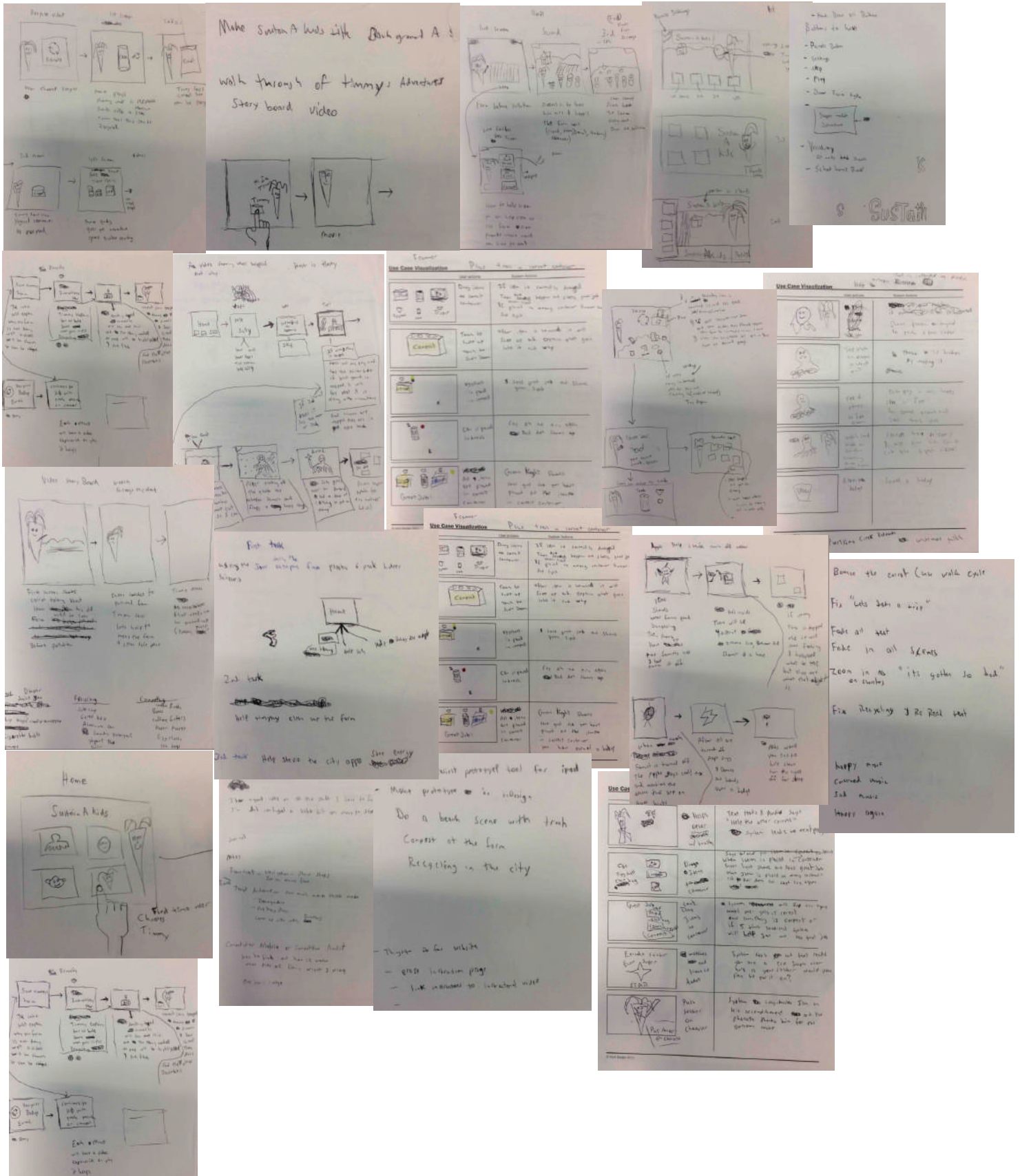
Visual Process

Imagery: Finalized characters



Visual Process

Early development: sketches, wireframes, and brainstorming

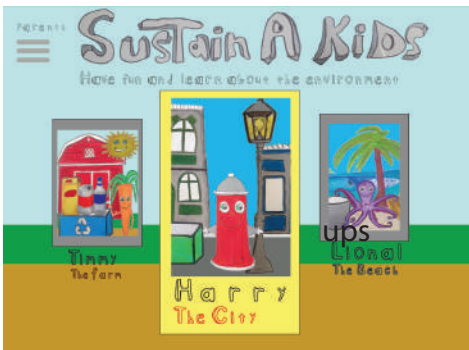
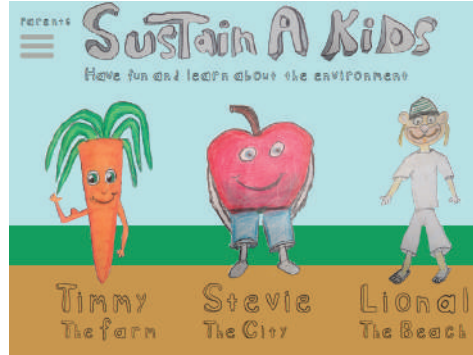
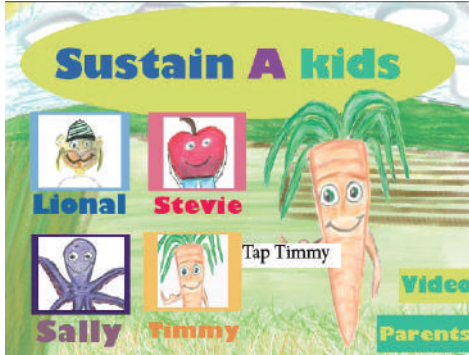


Visual Process

Home page: Mock ups

Before game play

Eco Timmy home page is most important because it should visually capture the user. The more important page is the farm scene. That is where the gameplay begins.



Home page: Final deliverable

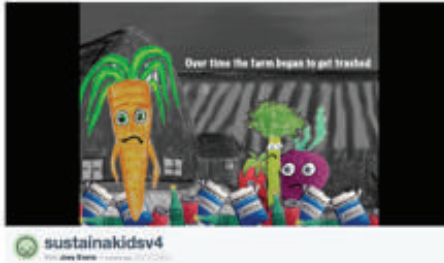


Visual Process

Instructional cartoon: Mock ups

Before game play

This part of the app is when the children learn how to play the game by watching an instructional cartoon. Below is the development process.



Visual Process

Farm scene: Mock ups and prototyping

Game play begins

Game play begins and the fun starts. This is the most important part of the app. The user starts to recycle the items by dragging into the correct bin. User testing and changes are below for each version.



V.1

User did not know what to touch since the scene was too jumbled.



V.2

Changed to have fewer items and make it darker. Elements were not draggable so users were not as interested in the dark scene



http://joeybobby.com/sustainakids_famousv3/

V.3

Lightened dark background and made elements draggable and able to place in the bin. User did not notice the text box above after completing the task and users continue to ask for sound.



http://joeybobby.com/sustainakids_famousv7/

V.7

Added rewarding audio letting them know they placed the item in the correct area. Users were wondering why I was reading to them and why Timmy isn't telling them what to do. They also wanted to place the items all the way into the recycling bin.

Visual Process

Farm scene: Prototyping

Game play begins

Game play begins and the fun starts. This is the most important part of the app. The user starts to recycle the items by dragging into the correct bin.



http://joeybobby.com/sustainakids_famousv14/

V.14

Can place the items all the way in the bin and now Timmy hosts and says the instructions. Users do tasks too quickly and expect reward after every task completion They also wondered why sound wouldn't start when on iPad.



http://joeybobby.com/sustainakids_famousv18/

V.18

Added a play button to make the code work on iPad and also added a reward at the end (static page). The users had a hard time finding the play button.



V.26

Made play button larger to cover the play area to start the level.

Users continue to want to play more.



V.27

Congratulations scene was changed to add more interactivity instead of my originally proposed congrats cartoon.

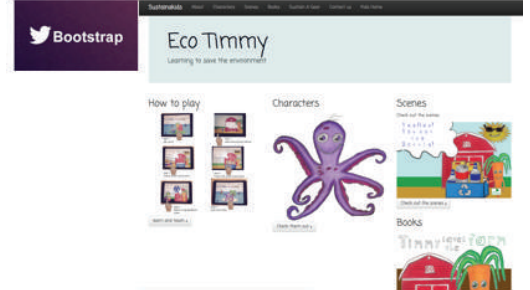
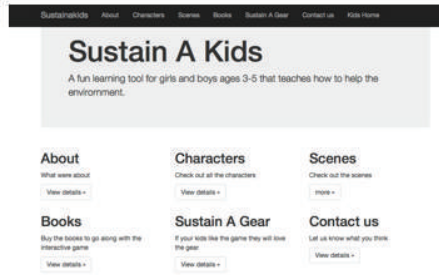
Kids really enjoyed the interaction and being part of the celebration.

Visual Process

Farm Scene: Final



Parent page: Wireframe mock ups and final

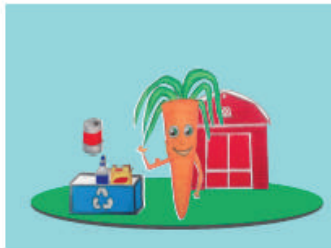


Visual Process

Style guide: final

Style Guide

Colors bright and vibrant
Characters have big smile
large happy eyes
shading from dark on
outside to light in center



Farm Scene
Recycling with Timmy the carrot



Beach Scene
Sally the octopus and pollution



City Scene
Phillip fire extinguisher energy



Color palate



Color palate



Color palate

Illustration Process



bristol board

All illustrations should be drawn on bristol board nothing smaller than 8x11 to keep resolution consistent. It also makes scanning easier. The thickness of bristol board is less likely to bend or rip.



pencil

Use mechanical pencil .5 for initial sketch this makes it easy to erase and gives a special style.



prisma color

After original sketch is finished move on to filling the subject in with color. Prisma colors should be used. Only a couple of colors of different shades should be used for each. The darker shade should always be on the outside it should go to the lighter shade on the inside of the subject. This effect is used to make contrast and make subject seem less flat. Prisma colors keep that hand drawn illustrative feel that sustanakids is going for.



fiber castell

Always use fine and medium fiber castell pens for the outline. It makes it easy to distinguish the edge of the subject but not heavy of a black line. Also makes it very easy to take the background of the subject out in Photoshop. Makes for a very hard contrast from black to white.



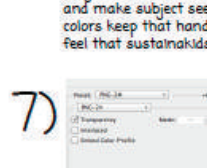
scan in

Scan subject make sure it looks good not pixelated



photoshop

Put subject into photoshop take white background out and crop the subject with very little space.



save as png 24

Make sure to save a psd version and a png version Psd (photoshop file) for reworking the image. Png 24 for web it makes the image transparent without a white background.



finished product

Here is a example of what your finished product should look like

Visual Process

Style guide: Audio

Audio



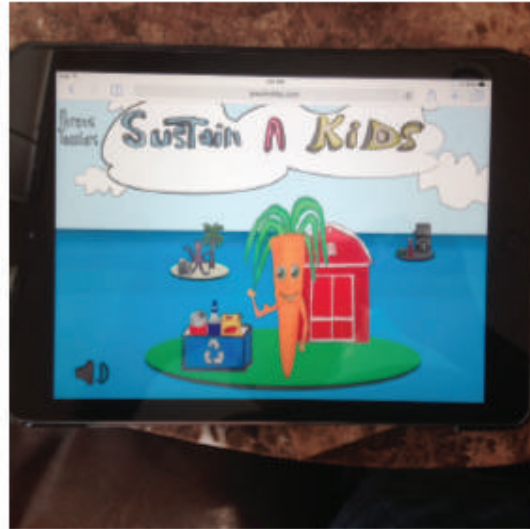
voices

All characters have a specific voice assigned to them. They are individual to each character so that the user gets to know them



music

Music in the scenes should have no lyrics and very happy upbeat for ages 3-5



ipad

All scenes should be designed to fit in an iPad air 1024 x 768px

User Experience Process

Target audience: Primary



Kids ages 3-5

My primary target audience is kids ages 3-5 or kids that are at a 3-5 year old learning level.



Learning to read

Most of the target audience knows the alphabet and is learning to read. They know a few words and have started to sound out words they don't know. They enjoy playing games and know how to use smart phones and tablets.



Have tablets

They are kids that own or have a tablet at their disposal. The kids are in the English speaking areas. They are middle-to-upper class and most of them attend a preschool.



Enjoy games

They enjoy playing games and know how to use smart phones and tablets. They know how to swipe, drag and drop and spend about an hour on a smart phone or tablet daily.

User Experience Process

Target audience: Secondary



Kids parents

Secondary target audience is parents who want to teach their 3-5 year old reuse, reduce and recycle.



Learning with them

The parents also have a strong drive to learn together with them.



Interested in teaching

They are parents who let their kids use their tablet or the kid has a designated tablet. They spend about an hour a day on the tablet and roughly 30 minutes a day with their kid.

Primary persona: Primary 1



“Can I play Eco Timmy?”

~Zoey

Name

Zoey (“Ms. Social”)

Age

3.5

Home

Berkeley, CA

Parents

Married

Siblings

Older sister

Pre- School

Hopkins

Likes

Dressing up in princess costumes, playing hide and seek, and watching cartoons like Doc McStuffins on Disney. Also loves playing LumiKids Park app.

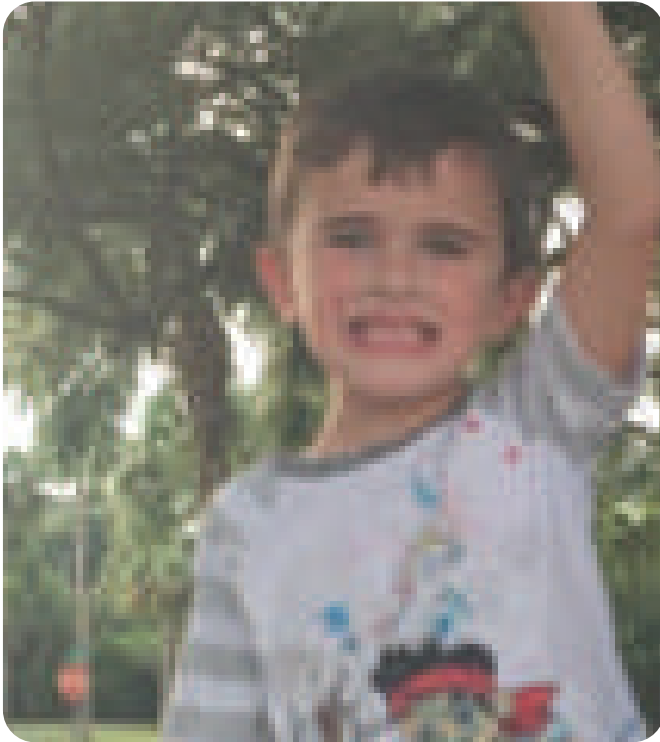
Personality

She is a outgoing, very social loud and gets jealous.

About

She is at preschool most of the day so she has a lot of interaction with other kids. She is constantly learning from others. She loves her play time with sister and cousins. She loves to run around the house.

Primary persona: Primary 2



“I love to recycle”

~Luca

Name

Luca (“Mr. Smarty”)

Age

4

Home

Ann Arbor, MI

Parents

Married

Siblings

Younger brother

Pre- School

Jack and Jill

Likes

Playing with his dog, swimming, fishing watching cartoons like Daniel the Tiger and Kipper the Dog.

Personality

He is a shy, reserved kid who is well-behaved.

About

He is always around his mom, dad and grandma. He loves to play and sing with them and have books read to him.

Secondary persona: Secondary 1



**“I’m kinda an
eco nerd”**

~Margie

Name

Margie (“Eco Nerd”)

Age

33

Home

Boston, MA

Status

Married

Kids

4 year old boy

School

MS Computer Science
from Harvard

Work

Head of Content Management at NorthEast Health-care Services

Personality

She is very smart, loves the outdoors and is outgoing. She tries to be involved in the Boston community and is into urban farming.

Likes

To keep work separate from other activities, such as hanging out with family and friends, going on vacations and taking her dog and 4 year old boy to the park. She is a big supporter of reducing, reusing and recycling.

Secondary persona: Secondary 1



**“I love to help
for good”**
~Kelly

Name
Kelly (“Mrs. Positivity”)

Age
29

Home
Ft. Lauderdale, FL

Status
Single

Kids
3 year old girl

Work

Traveling nurse at Kaiser Permanente

Personality

She is a very sweet, generous, positive, and loving person who will help a complete stranger. She believes that the world can be a better place and she is willing to help any way possible.

Likes

She really like to teach her kid how too read. Enjoys hanging with her 3 year old girl. She really likes shopping for cute clothes for herself and her daughter. She admits that she wants her girl to look the cutest.

Persona: Primary use case 1



Primary use case 1

Zoey sees her friends playing Eco Timmy and she really likes the sound effects, illustrations and animations. Zoey wants to try Eco Timmy and she asks her friends to play. She starts to play without any instructions.

Task flow 1

Home page

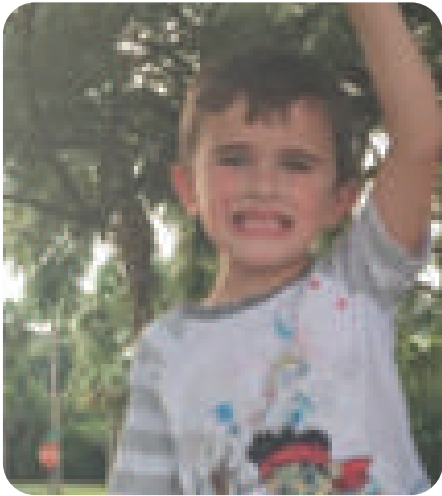
Cartoon

Audio instructions

Game Play

Reward

Persona: Primary use case 2



Primary use case 2

One of Luca's favorite games Eco Timmy and his favorite level is on the farm. He wants to go to his saved game and finish the congratulations scene.

Task flow 2

Home page

Saved game

Audio instructions

Game Play

Reward

Persona: Secondary use case



Margie

Secondary use case 1

Margie has been sorting through the trash because her son throws everything in the trash rather than putting some items into the recycling. She wants him to learn what goes in the recycling so she doesn't have to sort trash any longer. She searches the app store and finds Eco Timmy and sees that it is great for his age.

Task flow

Home page

Answers question

Parent page

How to play

Video

Persona: Secondary use case



Kelly

Secondary use case 2

She has noticed her daughter really enjoys playing Eco Timmy. She decides to check out the parents page. She does a Google search for Eco Timmy and starts browsing the parents page. She realizes that they have really cute socks that will look great on her daughter. She purchases two pairs for her 3 year old.

Parents page

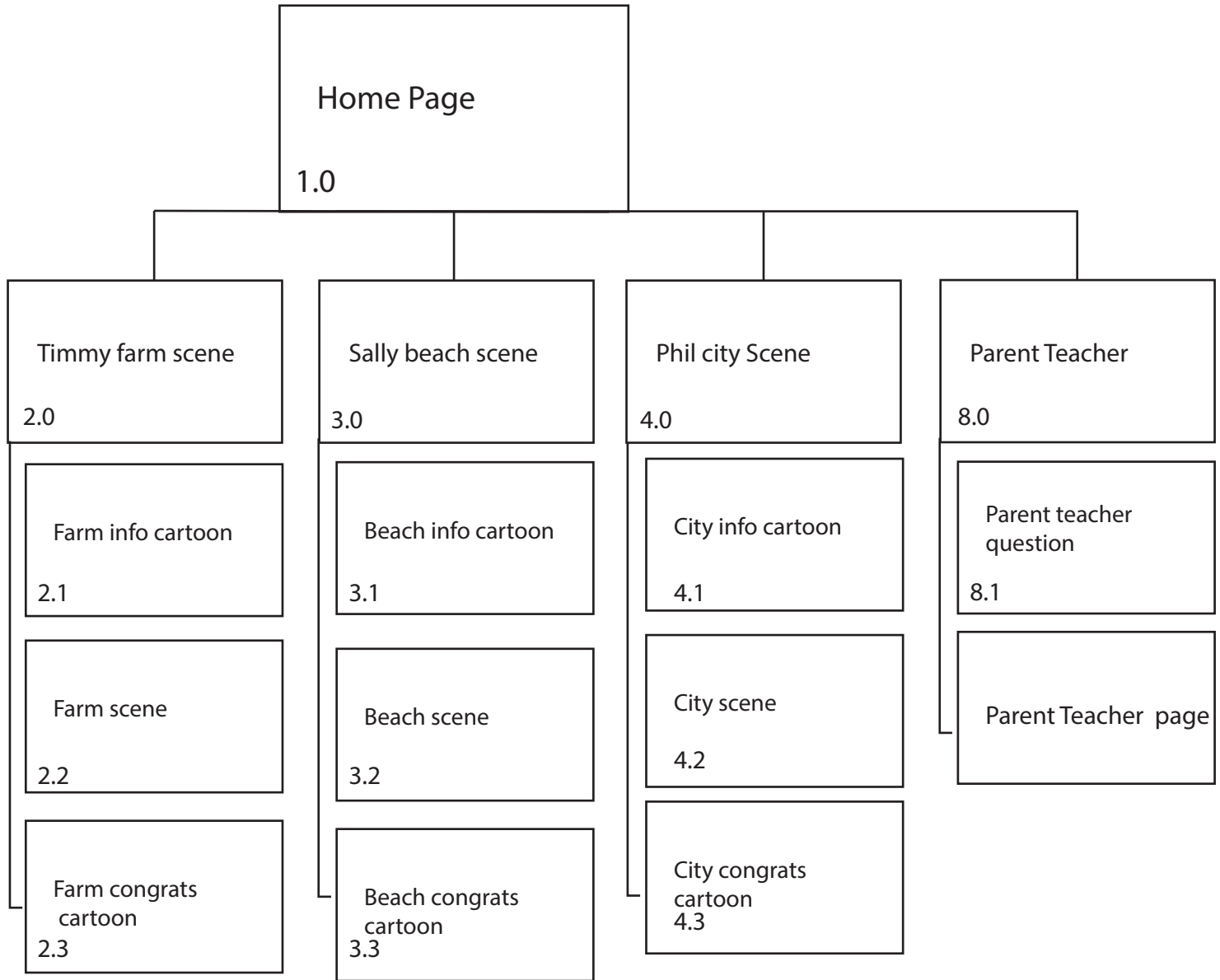
Shop

Buy socks

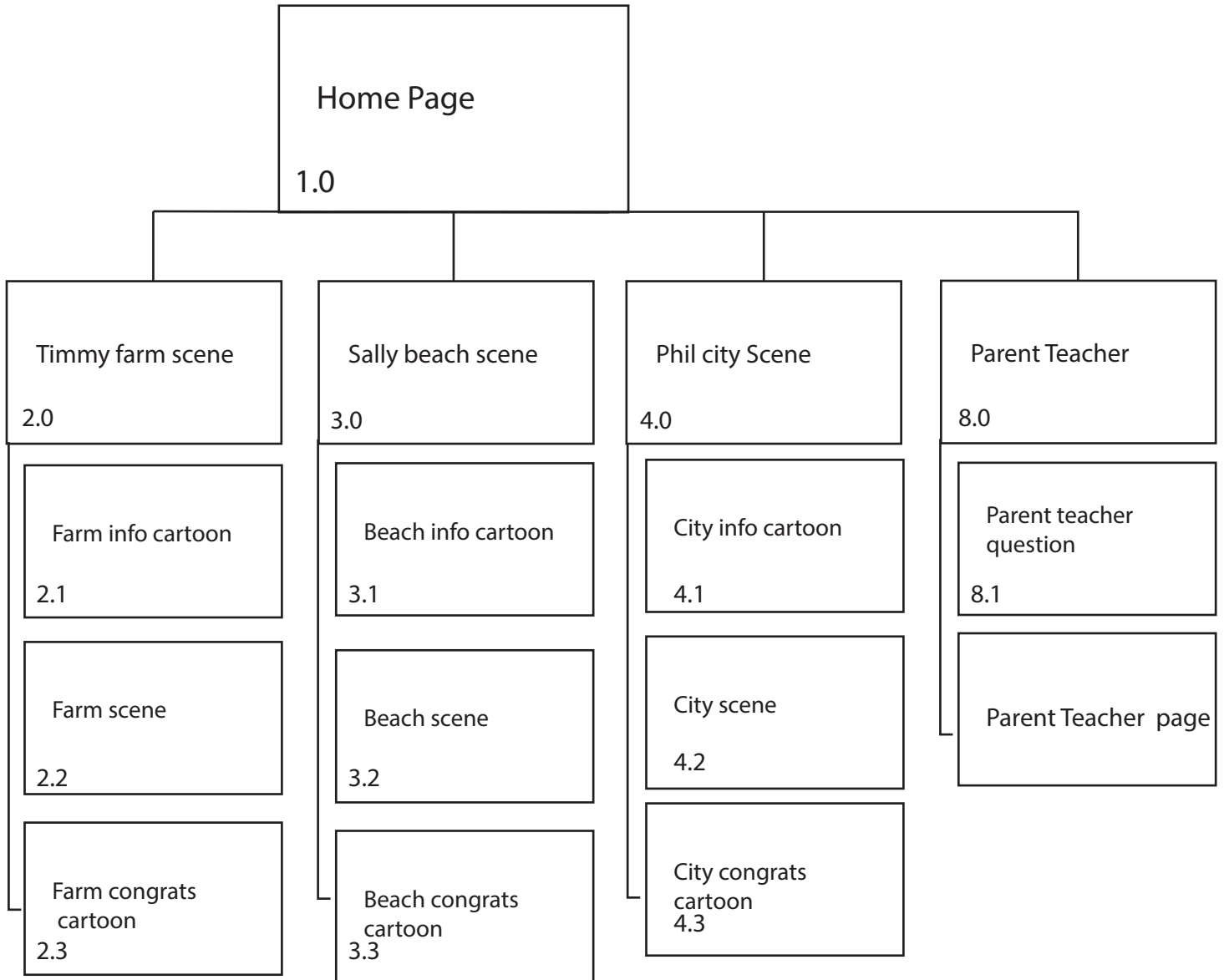
Quantity and size

Payment

Site map and Content inventory: Home page



Site map and Content inventory: Home page



Site map and Content inventory: Home page

Eco Timmy
Content Inventory

	Title	Content Item	Task/format	Complete	Need	Obtained Content
1.0	Kids home page	Web hosting	Purchase	x		All content done by Myself
1.1		Farm scene	Hand Draw/png.	x		
1.2		City scene	Hand Draw/png.	x		
1.3		Beach scene	Hand Draw/png.	x		
1.4		Logo	Hand Draw/png.		x	
1.5		Lock	Hand Draw/png.		x	
1.6		Cloud	Illustrator/png	x		
1.7		Audio buttons	Illustrator/png	x		
1.8		Animations	Famo.us/Javascript	x		
1.9		Buttons	Famo.us/JS/HTML5	x		
1.10		Kids song	Audacity/mp3	x		
2.0	Intro video page	Instructional Script	Word/text	x		
2.1		Instructional scene	After effects/mp4	x		
2.2		Animations	After effects/mp4		x	
2.3		Instructional Audio	Audacity/mp3	x		
2.4		Skip button	Hand Draw/png		x	
2.5		Auto play	HTML	x		
2.6		Auto link/farm	HTML	x		
2.7		Background	Illustrator/Png		x	
3.0	Farm(Game) Scene	Script	Word/text	x		
3.1		Scene	Hand draw/png	x		
3.2		Characters	Hand draw/png	x		
3.3		Items	Hand draw/png	x		
3.4		Audio	Audacity/mp3	x		
3.5		Font	Hand draw/ttf	x		
3.6		Animation	code/Famo.us/JS	x		
3.7		Drag	Code/Famous/JS	x		
3.8		Drop	Code/Famo.us/JS	x		
3.9		Lock	Code/Famo.us/JS	x		
3.10		Play through	Code/JS		x	
4.1	Congrats video page	Script	Word/text	x		
4.2		Congrats scene	Hand draw/png		x	
4.3		Congrats audio	Audacity/mp3		x	
4.4		Animations	After effects mp4		x	
4.5		Auto play	HTML5		x	
4.6		Auto link to home	HTML5		x	

Site map and Content inventory: Parents page

Eco Timmy/parent teacher
Content Inventory

	Title	Content Item	Task/format	Complete	Need	Obtained Content
1.0	Parent/teacher home	Concept video	after effects/mp4	x		All by Me
1.1		How to use	Illustrator/png.	x		
1.2		Scenes	Illustrator/png.	x		
1.3		Characters	Illustrator/png.	x		
1.4		Gear	Illustrator/png.	x		
1.5		Books	Illustrator/png.	x		
1.6		Contact us	Illustrator/png	x		
2.0	How to use page	Instructional	Illustrator/png.	x		
3.0	Characters page	Sally description	Word/text	x		
3.1		Sally image	Illustrator/png	x		
3.2		Timmy description	Word/text	x		
3.3		Timmy image	Illustrator/png	x		
3.4		Phil description	Word/text	x		
3.5		Phil image	Illustrator/png	x		
3.6		Supporting cast	Illustrator/png	x		
3.7		Cast description	Word/text	x		
4.1	Scenes page	Farm scene	Illustrator/png	x		
4.2		Farm description	Word/text	x		
4.3		Beach scene	Illustrator/png	x		
4.4		Beach description	Word/text	x		
4.5		City scene	Illustrator/png	x		
4.6		City description	Word/text	x		
5.1	Books page	Farm book	Illustrator/png	x		
5.2		Farm description	Word/text	x		
5.3		Beach book	Illustrator/png	x		
5.4		Beach description	Word/text	x		
5.5		City book	Illustrator/png	x		
5.6		City description	Word/text	x		
5.7		Buy button	HTML	x		
6.0	Gear page	Shirts	illustrator/png	x		
6.1		Books	Illustrator/png	x		
6.2		Stickers	Illustrator/png	x		
6.3		Hats	Illustrator/png	x		
6.4		Socks	Illustrator/png	x		
7.0	Contact Page	Contact form	HTML/php	x		
8.0	Shopping cart	Form		x		

User Experience Process

Early user testing: Test 1 and 2



Test 1: version1

Early testing consisted of making sure my target audience would like my product.

Who was tested

Two boys and two girls, ages 3-7, and their parents.

Date

9/14 - 10/14

Task

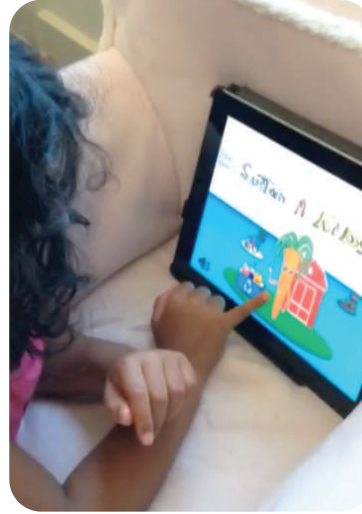
Take a look at the characters and scenes. Which ones do you like? Which one do you dislike?

Feedback

Most feedback was positive and helpful. All the kids seemed to like the carrot on the farm the best. I received feedback that they would like to see it on the iPad.

Changes made

My target audience changed. At first the target was ages 3-7. Ages 6-7 didn't seem as interested in the characters. So the focus from 3-7 became 3-5.



Test 2: version2

This test consisted of having my target audience watch my instructional video.

Who was tested

Two boys and one girl, ages 3-4, from different areas in the US.

Date

10/14 - 11/14

Task

Watch the video.

Feedback

They seemed to enjoy the characters and the voices. Some became uninterested toward the end.

Changes made

Made the drawings more interesting and make the instructional video shorter.

Early prototype testing: Test 3 and 4



Test 3: version3

This test was the first prototype test online with Vimeo and Invision app.

Who was tested

One boy and one girl age 3 and 5

Date

11/14 - 12/14

Task

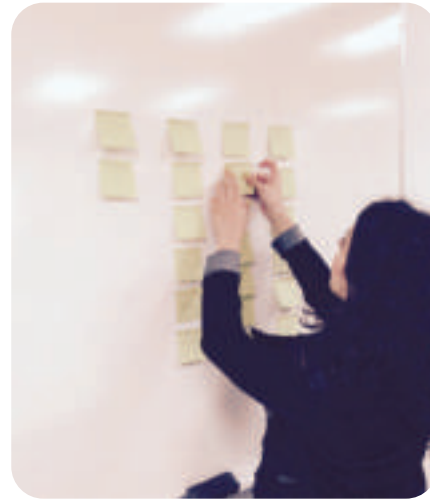
Watch the video. Then follow then instructions read by me.

Feedback

Both were excited about the video, but were much more excited to interact with the game. The girl was very interested in playing again. She really liked the carrot.

Changes made

Rewards added to prototype.



Test 4: version4

Updated online prototype with vimeo and inversion app.

Who was tested

2 boys age 3 and 4

Date

12/14 - 1/14

Task

Watch the video. Then follow then instructions read by me.

Feedback

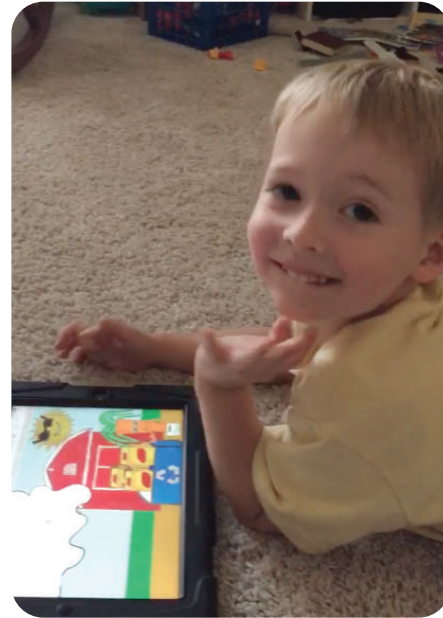
Neither seemed as interested in the video as the other test. They enjoyed the characters, but wanted to hear sound rather than have me read to them. They also wanted to drag and tap on different items in the app.

Changes made

Keep tap but also incorporated drag. Kids age 3 already know how to drag things on the tablet. Add audio and shorten video making it more to the point.

User Experience Process

Coded prototype testing: Test 5 and 6



Test 5: version5

First coded version with Famo.us and updated instructional cartoon.

Who was tested

3 kids 2 girls 1 boy age 4 - 5

Date

2/15 - 4/15

Task

Watch the video. Then follow the audio instructions.

Feedback

They enjoyed the shortened video. The new drag-gable and tappable functions created a more engaged audience. The new audio instructions helped tie the game together. They liked being independent when playing. This test was the most helpful so far it showed how much work was needed.

Changes made

I realized that I needed a home or landing page. Also wanted to incorporate text to help learning how to read. Also realized that adding color to words as they were spoken would help. Also added a parent teacher page if adults are interested in learning.

Test 6: version6

New coded home page

Who was tested

2 girls age 4

Date

4/15 - 5/15

Task

Play the game

Feedback

Most of the kids tap the carrot right away but some tap the other characters on the home page. They all want to play more they finish fairly quickly.

Changes made

Make a lock for the characters that are not available. Also when they tap the other characters the audio tells them to tap the carrot. Added another level rather than a congratulations video.

Hi fidelity testing: Test 7 and parents page test



Test 7: version7

Last coded page

Who was tested

3 kids age 3-5

Date

9/15 - 12/15

Task

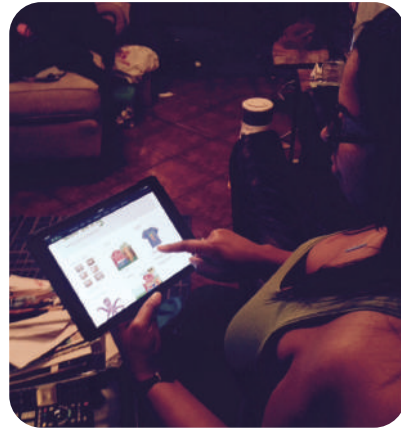
Play the game

Feedback

The kids really enjoy the game and are less interested in the instructional cartoon than they are in the interactive game.

Changes to make

Turn congratulations video into part of the coded scene.



Parent test

This test was on my parents page

Who was tested

3 parents

Date

10/15 - 12/15

Task

Buy two socks from our shop and learn how to play Eco Timmy

Feedback

Everyone figured it out quickly, but one parent didn't know where to tap on the home page right away.

Changes made

Make the parents page button on the home page more pronounced.

User testing: Primary target audience script

Usability Testing Script Eco Timmy Child

Web browser should be open to Google or some other “neutral” page

Hi, _____. My name is _____, and I’m going to be walking you through the session today.

We are going to play a game today and I need you to let me know what you are thinking out loud. That would be very helpful.

Also, please don’t worry that you’re going to hurt our feelings. We’re doing this to improve the site, so we need to hear your honest reactions.

Do you have any questions so far?

OK. Before we look at the site, I’d like to ask you just a few quick questions.

How old are you?

Do you go to preschool?

Do you like cartoons? What is your favorite?

How often do you play games on the phone or tablet every day?

What are your favorite apps to play?

Tap on the bookmark for the site’s home page.

First, let me know what you see on the page? What is the first think you want to tap?

Don’t tap on anything yet.

Allow this to continue for three or four minutes, at most.

Thanks. Now I’m going to ask you to try doing some specific tasks. I’m going to read each one out loud.

And again, as much as possible, it will help us if you can try to think out loud as you go along.

Read task aloud.

Allow the user to proceed until you don’t feel like it’s producing any value or the user becomes very frustrated.

Repeat for each task or until time runs out.

Thanks, that was very helpful.

Do you have any questions for me, now that we’re done?

Give them their incentive, or remind them it will be sent to them.

Stop the screen recorder and save the file.

Thank them and escort them out.

User testing: Secondary target audience script

Usability Testing Script Eco Timmy Parent

Web browser should be open to Google or some other “neutral” page

Hi, _____. My name is _____, and I’m going to be walking you through this session today. Before we begin, I have some information for you, and I’m going to read it to make sure that I cover everything.

You probably already have a good idea of why we asked you here, but let me go over it again briefly. We’re asking people to try using a tablet application that we’re working on so we can see whether it works as intended. The session should take about a half hour.

We are also asked you to bring your child _____, for the test as this is an app for children ages 3-5.

The first thing I want to make clear right away is that we’re testing the app, not you. You can’t do anything wrong here. In fact, this is probably the one place today where you don’t have to worry about making mistakes.

As you use the site, I’m going to ask you as much as possible to try to think out loud: to say what you’re looking at, what you’re trying to do, and what you’re thinking. This will be a big help to us.

Also, please don’t worry that you’re going to hurt our feelings. We’re doing this to improve the site, so we need to hear your honest reactions.

If you have any questions as we go along, just ask them. I may not be able to answer them right away, since we’re interested in how people do when they don’t have someone sitting next to them to help. But if you still have any questions when we’re done I’ll try to answer them then. And if you need to take a break at any point, just let me know.

You may have noticed the microphone. With your permission, we’re going to record what happens on the screen and our conversation. The recording will only be used to help us figure out how to improve the site, and it won’t be seen by anyone except the people working on this project. And it helps me, because I don’t have to take as many notes.

Also, there are a few people from the Web design team observing this session in another room. (They can’t see us, just the screen.)

If you would, I’m going to ask you to sign a simple permission form for us. It just says that we have your permission to record you and your child (if applicable), and that the recording will only be seen by the people working on the project.

Give them a recording permission form and a pen

While they sign it, START the SCREEN RECORDER

IF YOU ARE USING A NON-DISCLOSURE AGREEMENT (optional):

I know we also sent you a non-disclosure agreement that says that you won’t talk to anybody about what we’re showing you today, since it hasn’t been made public yet. Do you have that with you?

Accept the NDA and make sure that it’s signed. If they don’t have it with them, hand them a copy and give them time to read and sign it.

User testing: Who is tested, tasks, and consent form

Eco Timmy User Testing Who is tested

Parents that want to teach their 3-5 year old reuse, reduce and recycle. They are parents who let their kids use their tablet or the kid has a designated tablet. They spend about two hours a day on the tablet and about 30 minutes a day using a smart device with their kid.

The parents or teachers of kids ages 3-5 or of kids who are at a 3-5 learning level and who want them to learn about reducing, reusing and recycling. The kids either own or have a tablet at their disposal and are in the English speaking areas. They are middle-to-upper class and most attend a preschool. Most cannot read, but know the alphabet and know some words and are starting to sound out others. They enjoy playing games and know how to use a smart phone and tablet already. They know how to swipe, drag, drop, etc. they spend about an hour on the tablet daily.

Eco Timmy User testing Tasks

Parents

Task 1

Buy something you and your child would like from the site.

Task 2

Find out how to use play Eco Timmy

Kids

Task 1

Play the game Eco Timmy

Eco Timmy Recording consent form

Thank you for participating in our usability research.

We will be recording your session to allow Eco Timmy staff members who are unable to be here today to observe your session and benefit from your comments.

Please read the statement below and sign where indicated.-----

I understand that my usability test session will be recorded.

I grant [Eco Timmy] permission to use this recording for internal use only, for the purpose of improving the designs being tested.

Signature: _____

Print your name and name of child (if applicable): _____

Date: _____

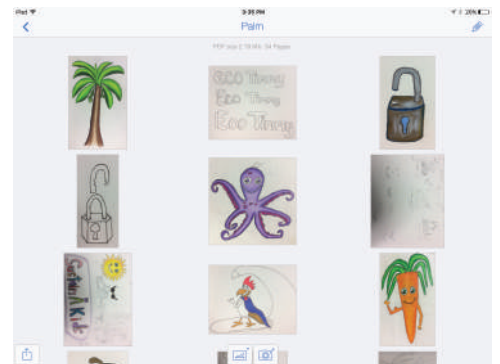
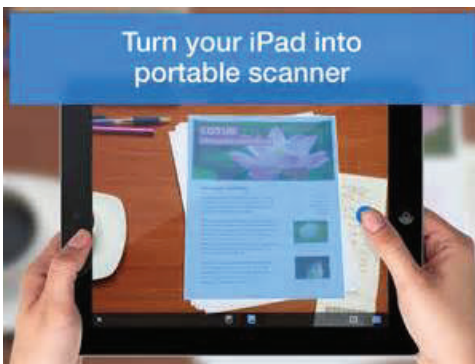
Technical Process

Technology used: Character and element creation

PRISMACOLOR®

1) Hand drawn elements

I used Prismacolor pencils to create a professional hand drawn elements. The shading that Prismacolor pencils make are very good.



2) Scanned with Ipad scanner app

The iPad scanner app keeps the colors rich and is much more efficient than a traditional scanner



3) Import images to Photoshop

used to fix any imperfections and take out the back ground in Photoshop. All images are then saves as transparent pngs for web. png-24



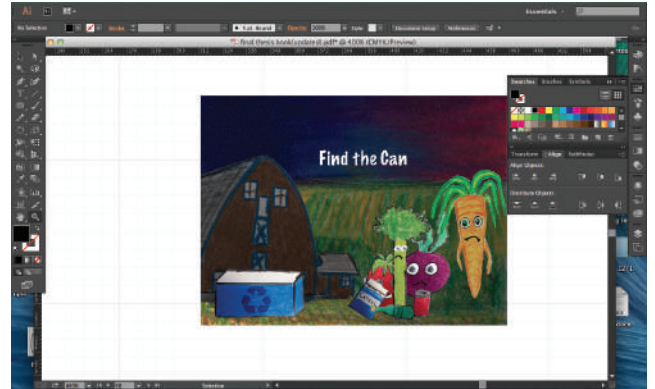
Technical Process

Technology used: Early prototyping



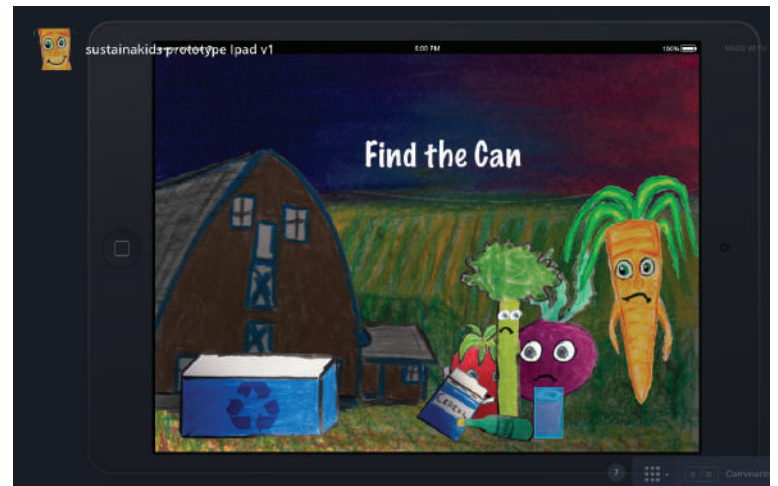
Illustrator

I used Illustrator to make all my prototypes for Invision. I like it better for layouts than Photoshop.



Invision

Invision is a great early prototyping tool. It worked really well for me because it was easy to use and made the game exactly how I wanted it. Invision has easy functions, but doesn't allow sound and drag drop functionality.



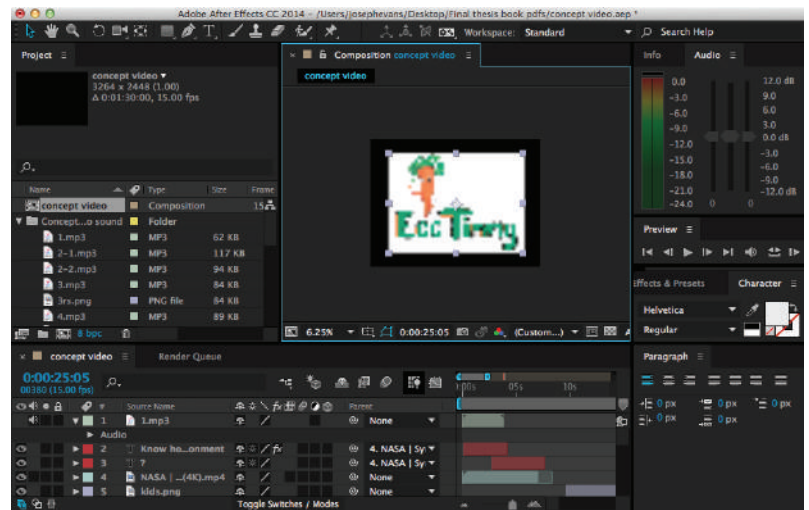
Technical Process

Technology used: Motion graphics



Vimeo

Before embedding my mp4 file into my main site, I uploaded my videos to vimeo.



After Effects

The instructional cartoon was edited in After Effects and then saved as a mp4.

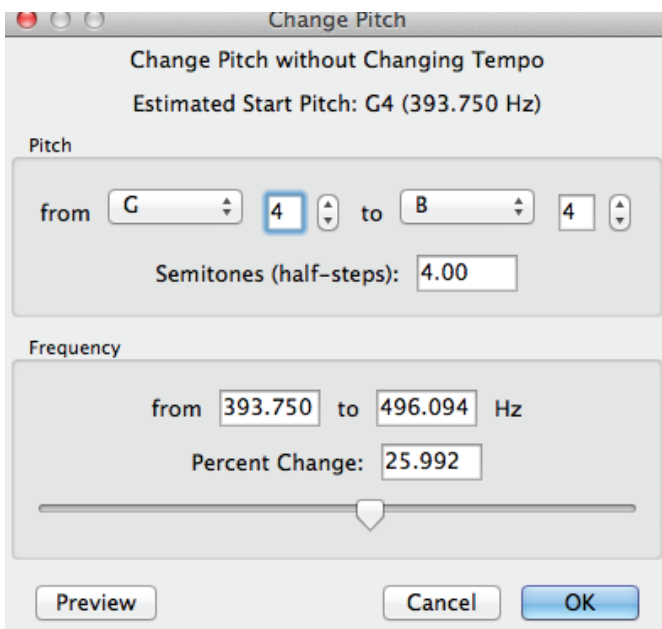
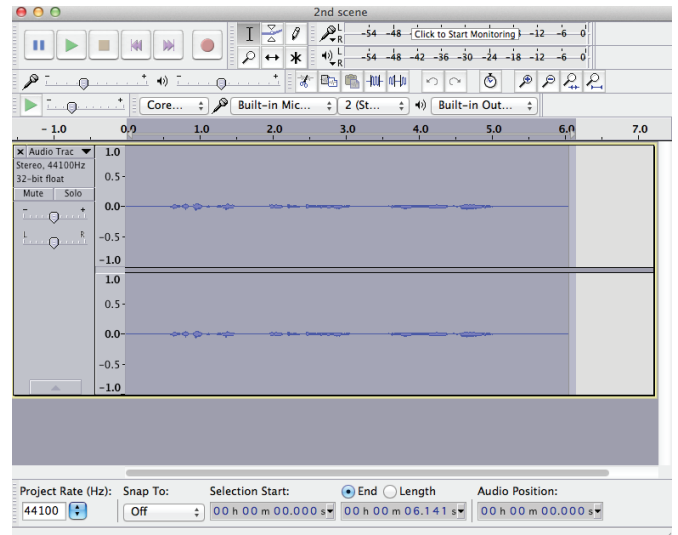
Technical Process

Technology used: Sound



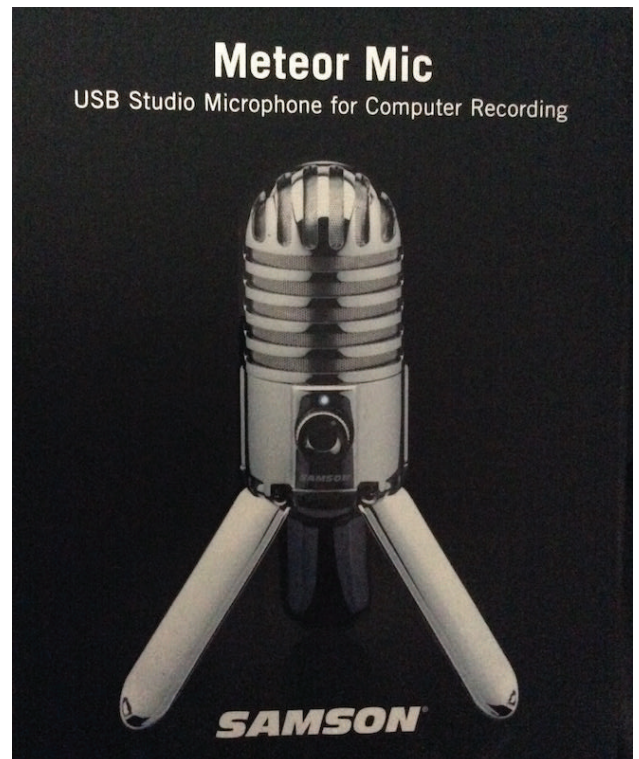
Audacity

Audacity is a great free app. That makes it easy to create and export sounds to mp3's. You must work with aup files to make changes to the sound wave-lengths. Audacity also can extract the background noise so the sound is more clear.



Pitch

I wanted my voice to be a bit higher for a more friendly experience for the kids. Turns out that with my testing they don't mind my voice without a higher pitch for the character.



Microphone

This is the microphone that I purchased to make all the sound effects. It works great because it saves it directly to the computer through the usb.

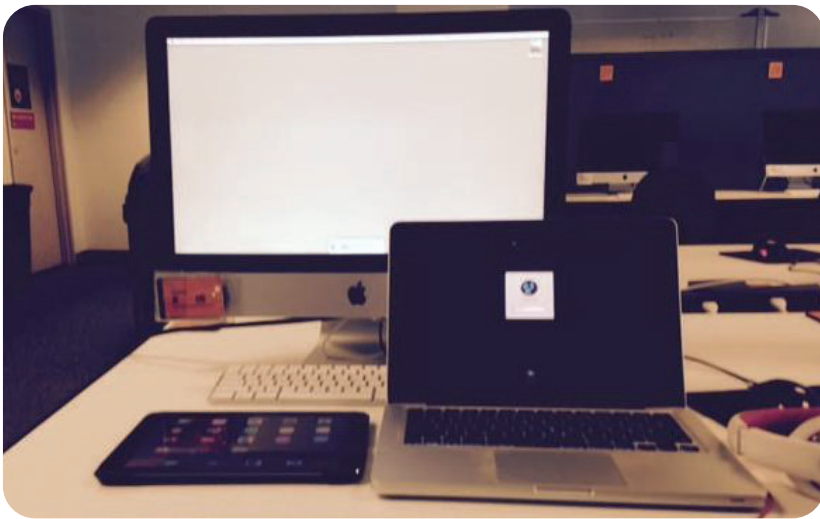
Technical Process

Technology used: Apple products



Apple products

I chose to design with Apple products because it has the faster processors than most other PC's. I also like the user interface and ease of use compared to other computers.



Desktop, laptop and iPad

I designed, tested with Apple products.

Technical Process

Technology used: Code



Html5

Html5 is the standard for web design right now and all the sites need to be in html5. This is where my core coding had to start. CSS and JavaScript were also important elements that work together very well.

```
index.html
1 <!DOCTYPE HTML>
2 <html>
3 <head>
4 <title>famo.us App</title>
5 <meta name="viewport" content="width=device-width, maximum-
6 scale=1, user-scalable=no" />
7 <meta name="mobile-web-app-capable" content="yes" />
8 <meta name="apple-mobile-web-app-capable" content="yes" />
9 <meta name="apple-mobile-web-app-status-bar-style" content="
10 black" />
11 <script>
12 var windowWidth = 400;
13 var windowHeight = 200;
14 var xPos = (screen.width/2) - (windowWidth/2);
15 var yPos = (screen.height/2) - (windowHeight/2);
16 window.open("resized.html", "POPUP", "width=" + windowWidth + ", height="
17 - windowHeight + ", left=" + xPos + ", top=" + yPos);
18 self.close();
19 </script>
20 <!-- shims for backwards compatibility -->
21 <script type="text/javascript" src="http://code.famo.
22 us/lib/functionPrototypeBind.js"></script>
23 <script type="text/javascript" src="http://code.famo.
24 us/lib/classList.js"></script>
25 <script type="text/javascript" src="http://code.famo.
26 us/lib/requestAnimationFrame.js"></script>
```



CSS

My CSS helps to make it easier to design because it sets standards for your whole site so there is no need write code over in the html5 unless customizing a certain area.

```
app.css
1 html {
2   background-color: #fff;
3   color: #000;
4 }
5 .double-sided {
6   -webkit-backface-visibility: visible;
7   backface-visibility: visible;
8 }
9
10 @font-face {
11   font-family: 'Untitled1';
12   font-style: normal;
13   font-weight: 100;
14   src: url('../fonts/Untitled1.ttf') format('truetype');
15 }
```



Javascript

JavaScript is important in my project and when I first started coding for my thesis it was very intimidating. Somethings still are: writing functions, if and else statements, variables, but they are very helpful when it comes to designing.

```
//
// make the text populate at the same time as the audio/ /
function updateSurfaceContent(mysurface,mytext,mycounter) {
  window.status = mycounter;
  mysurface.setContent(mytext.substring(0,mycounter));
  mycounter = mycounter + 1;
  if (mycounter <= mytext.length) {
    setTimeout( function() {
      updateSurfaceContent(mysurface,mytext,mycounter);
    }, 100);
  }
}
```

Technology used: Code



```
var Engine = famous.core.Engine;
var Modifier = famous.core.Modifier;
var Transform = famous.core.Transform;
var ImageSurface = famous.surfaces.ImageSurface;
var Surface = famous.core.Surface;
var Transitionable = famous.transitions.Transitionable;
var Easing = famous.transitions.Easing;
var GenericSync = famous.inputs.GenericSync;
var MouseSync = famous.inputs.MouseSync;
var TouchSync = famous.inputs.TouchSync;
var ScrollSync = famous.inputs.ScrollSync;
var EventHandler = famous.core.EventHandler;
var SoundPlayer = famous.core.SoundPlayer;
```

famo.us

Famo.us was a crucial element in my design functionality. I was going to work in flash but found famou.us platform easier. Famou.us makes animations easier than flash and it's html5 friendly. The platform is an easier version of JavaScript with its own language. The tutorials on their website were very helpful in my process.



Bootstrap

Bootstrap worked very well for my parents site. It's a plug in that has themes. It's easy if you know html. They do have their own language that must be learned. They also have tutorials and sample source code to make it easier to figure out.

```
bootstrap.js
1 /!
2 * Bootstrap v3.3.4 (http://getbootstrap.com)
3 * Copyright 2011-2015 Twitter, Inc.
4 * Licensed under MIT (https://github.com/twbs/bootstrap/blob/master/L
5
6
7 /!
8 * Generated using the Bootstrap Customizer (http://getbootstrap.com/c
9 * Config saved to config.json and https://gist.github.com/9aha/4d686e
10
11 if (typeof jQuery === 'undefined') {
12   throw new Error('Bootstrap's JavaScript requires jQuery')
13 }
14
15 +function ($) {
16   'use strict';
17   var version = $.fn.jquery.split(' ')[0].split('.')
18   if ((version[0] < 2 && version[1] < 9) || (version[0] == 1 && version
19     throw new Error('Bootstrap's JavaScript requires jQuery version 1
20   )(jQuery);
21
22 /!
23 * bootstrap.alert.js v3.3.4
24 * http://getbootstrap.com/javascript/#alerts
25
26 * Copyright 2011-2015 Twitter, Inc.
27 * Licensed under MIT (https://github.com/twbs/bootstrap/blob/master/L
```

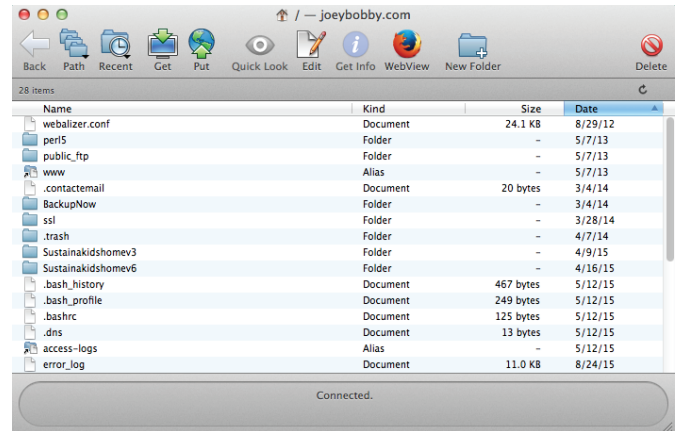
Technical Process

Technology used: Fetch, blue host, sublime text2



Fetch

Fetch made it very easy to upload my different website versions. Fetch all you need to do is drag and drop your folder and it magically is live on the internet.



blue host

I chose blue host and was happy with them as a host the customer service is good and the prices are fair. Throughout my time at AAU it also was a source to save my files on the server to use at the Mac lab.



Sublime text

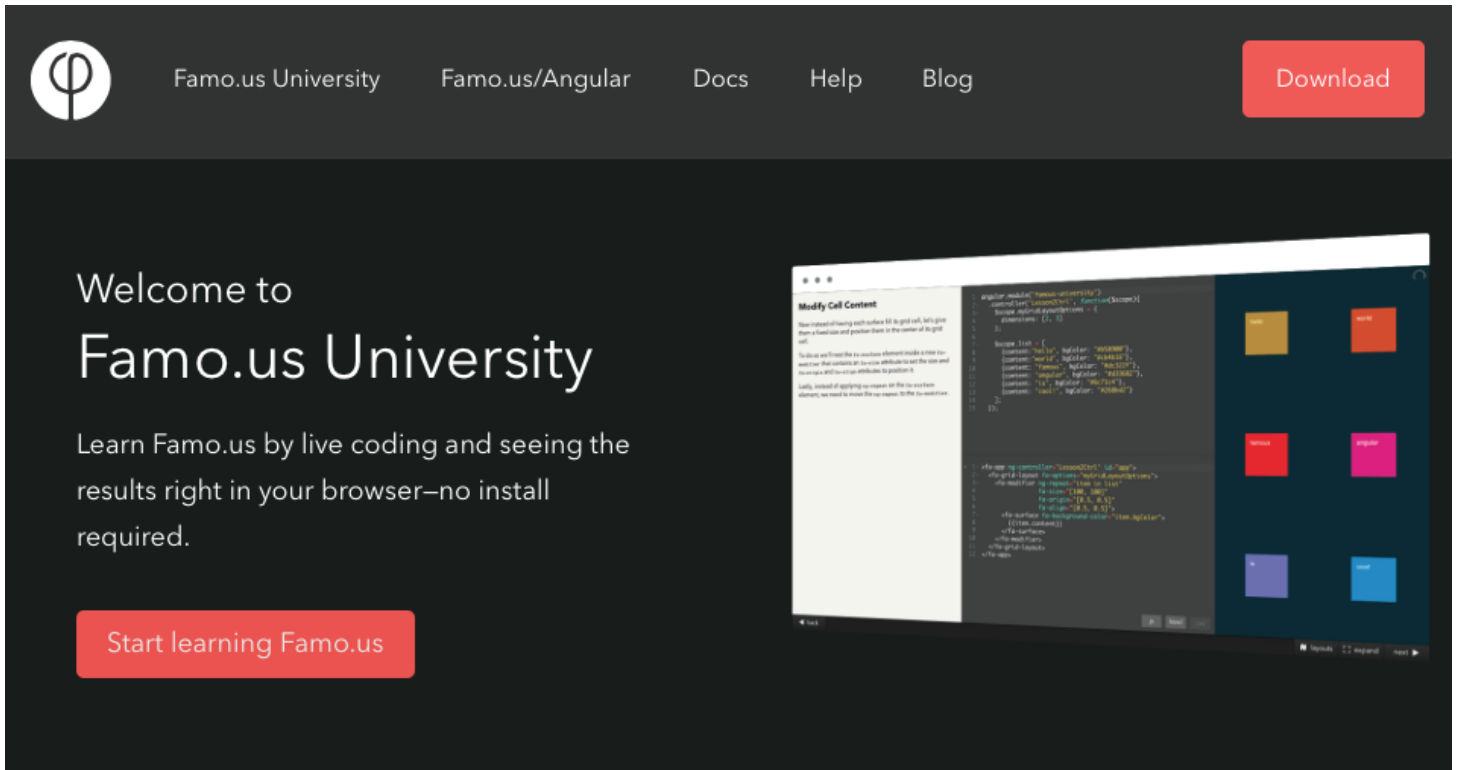
Sublime text became my go to code editor. It has a sleek UI and it can be changed to many different colors etc. The black background helped me focus on the screen for longer periods of time without getting a headache.

```

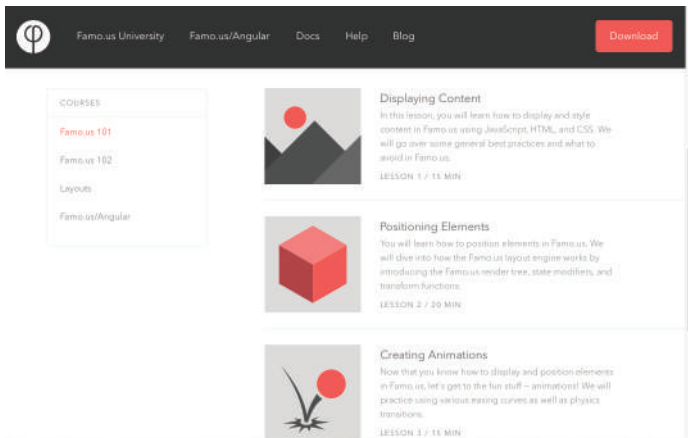
</head>
<body>
<style type="text/css">
@font-face {
font-family: "untitled1";
src: url(font/sustainakids.ttf) format("truetype");
}
</style>

```

Open source: Famo.us university



Famo.us 101



Animations

The tutorials start from the easiest thing, which is creating a surface. All the tutorials are editable from their site and shows how the animations work.

Our First Surface

In our first example, the content we're displaying is a simple "hello world" message inside of our first surface.

We use our Famo.us Engine to create a new context. Then we create a new surface by instantiating it from the Surface class.

In the instantiation, we pass in an options object that defines the content property of our new surface.

Finally, we add the surface to the context using the `.add()` method.

```
1 var Engine = require('famous/core/Engine');
2 var Surface = require('famous/core/Surface');
3
4 var mainContext = Engine.createContext();
5
6 var firstSurface = new Surface({
7   content: "hello world"
8 });
9
10 mainContext.add(firstSurface);
```

JS framework

The platform of famo.us is JavaScript that makes it a bit easier than raw JavaScript. I went to demo days at Famo.us office in downtown San Francisco it was very helpful to see what could be done with the platform.

Technical Process

Technical specifications: Firefox and tablet



Firefox

After testing with many other browsers, Firefox seems to work best. Although Safari and Chrome work fine, they didn't show the app the best as it could.



Tablet

Eco Timmy is designed to fit a tablet that is the same size as an iPad (1024px - 768px). It is designed to be held in landscape rather than portrait.

 A screenshot of a web developer console. The top bar shows tabs for Inspector, Console, Debugger, Style Editor, Performance, and Network. The Inspector shows the DOM tree with 'html.famous-root', 'body.famous-root', and 'div#bg' selected. The HTML code for the body is visible, including a style tag for the background and three audio tags. The Styles pane on the right shows the default styles for the '.famous-root' class, such as width: 100%, height: 100%, and overflow: hidden.


```

    <html class="famous-root">
      <head></head>
      <body class="famous-root">
        <style type="text/css">@font-face { font-family: "untitled1"; sr...</style>
        <div id="bg" style="height: 900px; width:100%; background-color:grey; z-index:
        -100;"></div>
        <audio id="id1" src="audio/timmy.mp3"></audio>
        <audio id="id2" src="audio/can.mp3"></audio>
        <audio id="id3" src="audio/bottle.mp3"></audio>
      </body>
    </html>

    .famous-root {
      width: 100%;
      height: 100%;
      margin: 0px;
      padding: 0px;
      opacity: 0.999999;
      overflow: hidden;
    }
  
```

Web developer console

Testing to see what is going wrong on the web console is very helpful. If something isn't working the web console will show the errors.

Technical experiments: Image surface and animation

```
var songAlignOrigin = new Transitionable([0.94, -3]);  
  
var song = new ImageSurface({  
  size: [160, 80],  
  content: 'img/song.png',  
  classes: ['double-sided']  
});
```

Image surface

In the above code each image is considered a surface with individual names along with the size of the image. All my images are transparent pngs. The transitional is where the items starts (off the screen) and falls in with ease in.

```
songAlignOrigin.set([.9, 0.055], {  
  duration: 3300,  
  curve: 'easeIn'  
});
```

Animation

The above code shows how the items fall into the screen from above to seem real rather than coming in from the side. The size is set here and the time it eases in to the screen and where it lands on the screen duration is how fast it moves.

Technical Process

Technical experiments: Resizer and cache manifest

```
resizer.html x
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="utf-8" />
5   <title>Auto Resize Window</title>
6   <script>
7     var windowWidth = 400;
8     var windowHeight = 200;
9     var xPos = (screen.width/2) - (windowWidth/2);
10    var yPos = (screen.height/2) - (windowHeight/2);
11    window.open("resized.html", "POPUP", "width=" + windowWidth + ", height="
12    + windowHeight + ", left=" + xPos + ", top=" + yPos);
13    self.close();
14  </script>
15 </head>
16 <body>
17 </body>
18 </html>
```

Resizer

The above code will resize the image, but some browsers will think it's a pop-up so it won't open in some browsers like Safari or Chrome.

```
CACHE MANIFEST x
1 CACHE MANIFEST
2 CACHE
3
4 timmyrecycles1080.m4v
5
6 NETWORK
7
8 FALLBACK
9
10
```

Cache manifest

The above code will make my movie download in the cache so it will be viewable without internet access.

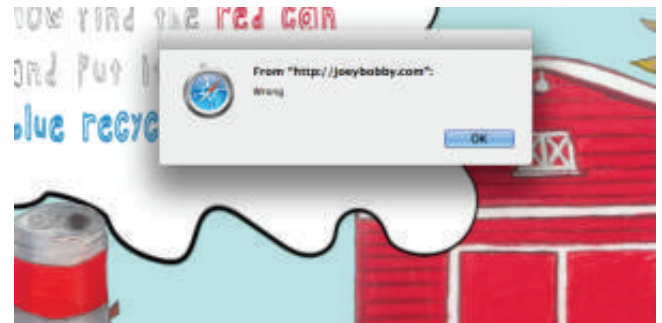
Technical Process

Technical experiments: Wrong placement and parent access page

```
cer3.isPlaced = false;
var cer3Mod = new Modifier({
  align: function() {
    return cer3AlignOrigin.get();
  },
  origin: function() {
    return cer3AlignOrigin.get();
  }
});
```

```

}
else{alert("Wrong");}
})
```



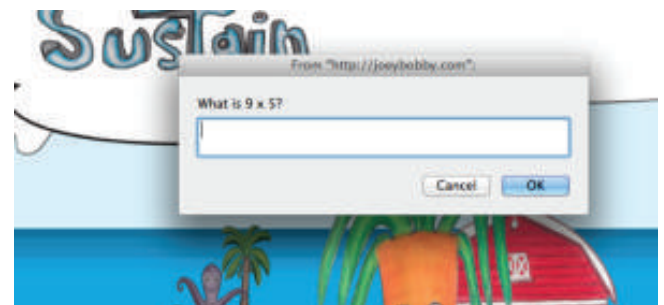
Wrong placement

In the above code a pop-up shows up when an item is dragged and dropped in the incorrect x and y axis. Some of the target audience was not happy about being wrong so this might not be the best approach.

```
pt.on('click', function(){
  var answer = prompt("What is 9 x 5?", "");
  if (answer == 45)
    window.location.href="http://joeybobby.com/teacher_page3/";
})
```

Parent page access

When the parent page button is tapped a question that only an adult would know comes up. Only if the user answers correctly do they gain access to the parent page.



Analysis and Conclusions

Problem: Restated

Not enough recycling

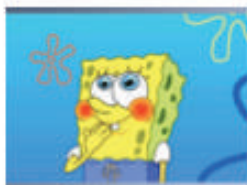
The problem was not enough awareness about recycling, reducing and reusing. My project was designed to be a fun way for kids to learn about the 3 R's. Recycling is the start of being aware of sustainability so that is the reason why I chose to focus on that first.

Solution

Created a fun interactive game to show kids what goes in the recycling bin. It has all the elements that kids enjoy, such as lively characters, bright colors and interactive scenes.



Cartoon



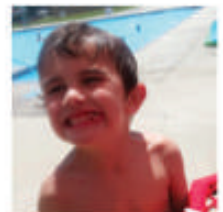
Book



Game



Fun



Analysis and Conclusions

Successes: Coding

```
//
// make the text populate at the same time as the audio/ /
function updateSurfaceContent(mysurface,mytext,mycounter) {
  window.status = mycounter;
  mysurface.setContent(mytext.substring(0,mycounter));
  mycounter = mycounter + 1;
  if (mycounter <= mytext.length) {
    setTimeout( function() {
      updateSurfaceContent(mysurface,mytext,mycounter);
    }, 100);
  }
}
```

Populate text

This code is to make all the text go on the screen at the same time as the audio plays. The idea is to help kids learn to read and learn sustainability terms. The timing of my text and coloring help kids learn to read.

```
cer3.on('click', function(){
  document.getElementById('id4').play();
})
```

```
</head>
<body>
<style type="text/css">
@font-face {
  font-family: "untitled1";
  src: url(font/sustainakids.ttf) format("truetype");
}
</style>
```

Font

Having a true type font that I created by hand show up on the screen with my audio playing through is really cool. I think that is a success. The above code shows how its added in the html.

Analysis and Conclusions

Challenges: Coding

New language

Learning to solve problems by using code was a big challenge for me. I found that coding is like knowing another language and there are many different versions and kinds of languages. Below were some of the most challenging codes I wrote. For position and lock I found a good solution and for auto play I found a quick fix.

```
sync.on('end', function(){
  // console.log(cer3position);
  if ((cer3position[0] <= 680 && cer3position[0] >=440) &&
    (cer3position[1] <= 150 && cer3position[1] >= -40)) {
    console.log('Congratulations! You got the Cereal!');
    cer3nomove = false;

    surfaceA = new Surface({
      size: [475, 230],

      content: 'Wow! You got the Cereal!',
      properties: {
        fontFamily: 'Untitled1',
        fontSize: '50px',
        align: [1.5,0.5],
        color: 'green',
        textAlign: 'center',
        backgroundColor: 'white'
      }
    });
  }
});
```

Position and lock

Figuring out the position from the x and y axis was very tricky for me. I really don't know why but it took me forever to find the perfect x and y axis to lock my items in place after they are placed correctly in the spot. The above code shows the exact x and y coordinants for the items to be place correctly into the recycling bin.

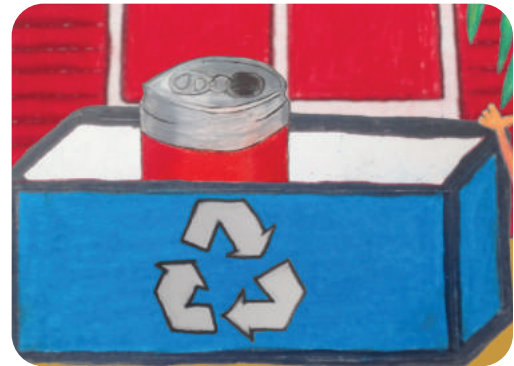
```
<audio id="id9" autoplay="autoplay">
  <source src="audio/redcan.mp3" type="audio/mpeg"/>
</audio>
```

Autoplay audio

Autoplay was a thorn in my side. Apple has made it impossible for me to figure out after looking at all the sample code. Eventually, I changed my strategy and found a different method since even the professor couldn't help find a solution. I made a play button to start the sequence and then made if statements to continue the linear game.

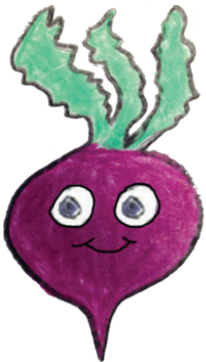
Adversity

I had many successes and challenges throughout my thesis process. Some things that I struggled with at first became things I really enjoyed learning about, like everything mentioned on this page.



Analysis and Conclusions

Skills gained: Illustration and storytelling



Illustrations

As seen in these images, my illustrations and design really improved. Research and user testing helped with this because some kids didn't know what the items were supposed to be.

Storytelling

I also think my storytelling ability through illustrations greatly improved.

Goals:

Were they met?

Goals

My goals were met because I incorporated feedback from user testing in the latest version. I had an idea at midpoint, but the project moved in a different direction. Instead of producing different scenes I focused on developing one scene and making it great. I wanted a coded app that was in the Apple store, but now I have a coded version that works on any tablet, which expands my audience.

Changes

All changes occurred because of research, user testing and technology used.

Flash to Famo.us

Major positive changes happened when I decided to code in Famo.us instead of using Flash.

Parent page

Another change happened when I realized I needed a parent page. I noticed that all the good kids sites and apps have a parents area that explains the app.

Shop

Adding a shop was an idea that I added because of my retail experience. I wanted to add an additional revenue element and will continue to work on it.

Cartoon to scene

Another change was the congratulations cartoon that was changed into an interactive animated scene. This change was due to popular demand from users.

Analysis and Conclusions

Directed study journal highlights: gdswmn801_9 user experience

Sesame Street Best Practices: Designing Touch Tablet Experiences for Preschoolers

Interaction and Design Tips From:

- Over 40 years of children's media making
- 20+ years of digital game design
- Including more than 50+ touch screen studies



Visual Layout

- **Menus:** In most cases, design for having a menu accessible at all times. For a storybook, it's important to include a large-by-page index.
- **Orientations:** Preschool-aged children cannot hold a tablet in landscape view.
- **Scroll:** Preschoolers tend to scroll screens the way they read. For our audience, this generally means left to right, and top to bottom.
- **Screen Edges:** Due to the weight and size of tablets, children tend to rest their wrists along the bottom edge of the screen. If interactive elements are placed there, children are likely to accidentally touch them and potentially "burn" out of the activity. Strategic positioning of the scene away from the bottom of the tablet will likely minimize frustration and quick game fatigue.



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Creating the Best Interactive Design

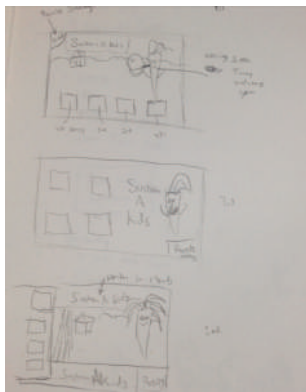
- **Greetings:** Most content begins with a character or friendly adult narrator greeting the user.
- **Instructions:** State the objective, as well as how to accomplish that objective.
- **Time-Outs:** Utilize time-outs as a concise suggestion for what to do next. They should occur after 3-5 seconds of inactivity for stories and 6-8 seconds for games.
- **Wrong Answers:** We consider a wrong answer to be an opportunity for a "learning moment." The use of audio and visual feedback should be encouraging and incremental. Wrong answer feedback typically occurs within 3 scaffolded levels.
 - **First Wrong Answer:** Identify an error and offer encouragement. Example: "That's not it, try again!"
 - **Second Wrong Answer:** Identify a wrong choice, indicate what we offer a hint, and provide encouragement. Example: "That's not right, you need to find a change. It's a button and a signal 'try again'."
 - **Third Wrong Answer:** Identify a wrong choice, make the correct one, offer a hint, and highlight the correct answer. Example: "That's not it, you need to find a change that looks and sounds like a button. Try again!" This should be accompanied by a character who is excited to see you, as the biggest encouragement forward. It's a bigging to make a good choice.



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Research

Research kickstarted my design process and directed me in the right direction. Research is a vital element when designing and it's important to know who you're designing for.



Mock-ups

Mock-ups were a highlight because they helped my process since it's really where I got feedback. I tested these sketches to see if kids would understand and also if my peers understood them. Critiques were also very important to my process. The feedback was great to have from both professors and other students.

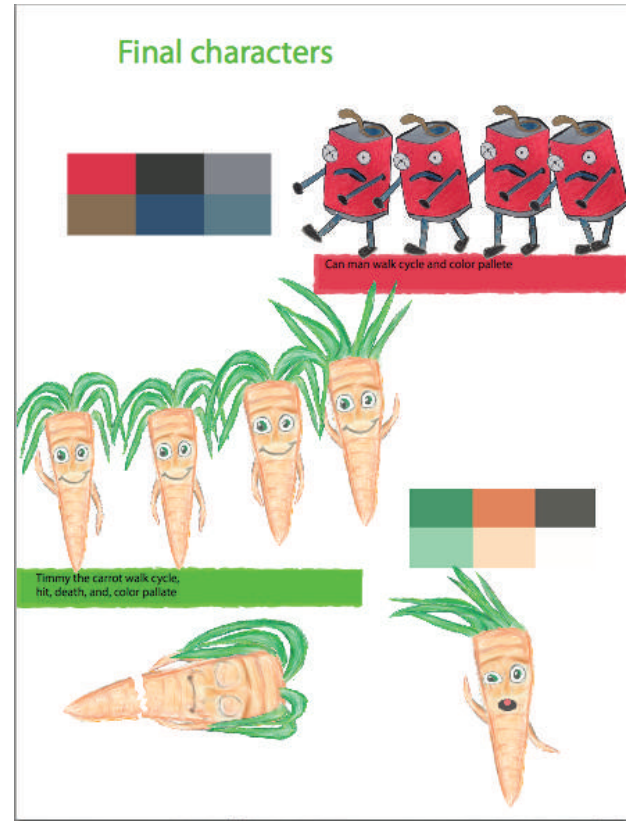
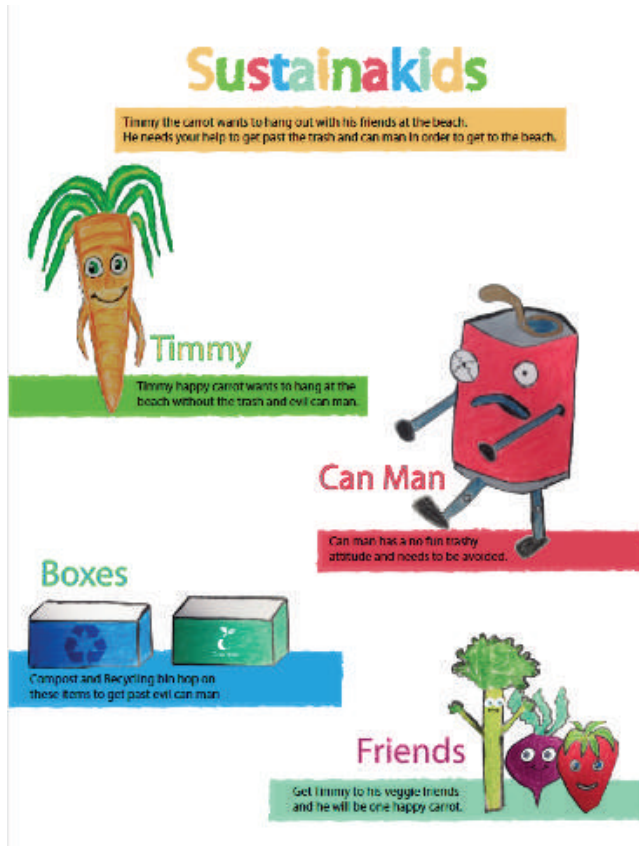


Prototyping

Learning the right way to prototype was also essential to this project. It was fun to start the testing process to see if my target audience would actually like the site I was making.

Analysis and Conclusions

Directed study journal highlights: gam130 game design



Character development

The game design class highlight was my character development. My characters needed to not only fit the audience, but they needed to have a personality, hobbies, likes, dislikes, and much, much more. I learned that the more developed the character was the better it would fit the audience.

Animation

Learning about animation was another highlight. Even though I didn't use the walk cycle in my code I would like to use it eventually in the future development of the site.

Analysis and Conclusions

Directed study journal: 801_23 responsive web



Deciding a coding platform

Another high and breaking point for me was deciding what platform to code my site with. Ben Hulan was my professor for responsive web and was very happy with his push for me to use Famo.us



Draggable elements

It was also a highlight when I could drag things around on the screen on a tablet. I felt really good about learning how to create draggables.



Watching it come together

I found it very exciting when I learned how to manipulate and animate my drawings on the screen.

http://www.joeybobby.com/gdsblog_801_23/

Analysis and Conclusions

Directed study journal: gds801_18 visual design

Style Guide

Colors bright and vibrant
 Characters have big smile
 large happy eyes
 shading from dark on
 outside to light in center

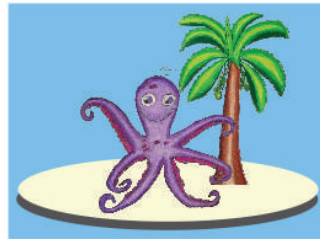


Visual design

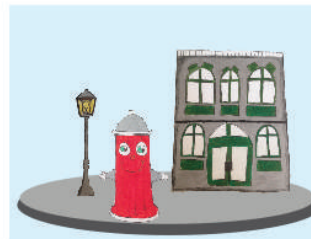
The best part of my visual design class was learning how to illustrate my characters and elements to look more professional.



Farm Scene
 Recycling with Timmy the carrot



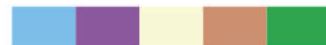
Beach Scene
 Sally the octopus and pollution



City Scene
 Phillip fire extinguisher energ



Color palate



Color palate



Color palate

Style guide

Creating a style guide was fun and helped focus the game. It was exciting to show my thoughts and vision.

Analysis and Conclusions

Directed study journal: gdsblog_801_32 user experience

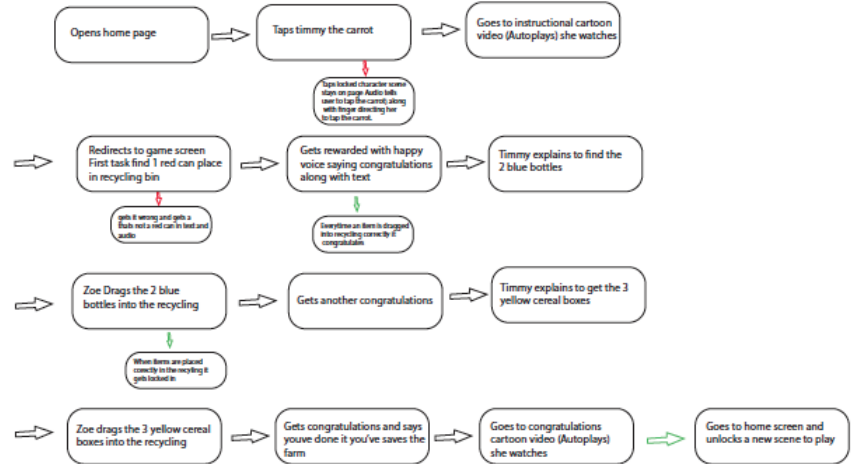
Site map



Site map

After user testing I created a more in-depth site map to help explain my ideas.

Task Flow



Task flow

The task flow before this version it was not as detailed. This shows the way my site flows though using my use case.

Competitive Matrix

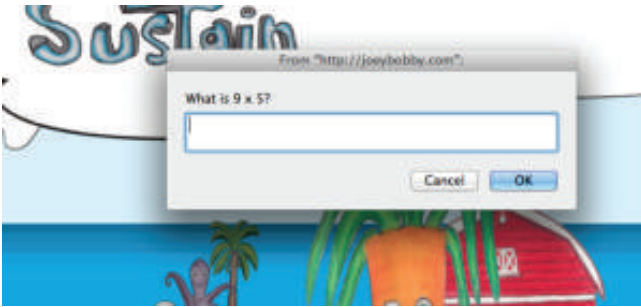
	Space Racers	Trash it	Recycle	Don't the tiger	Sustaina kids
Sound instructions		✓	✓	✓	✓
Flow				✓	✓
sound effects	✓			✓	✓
voice		✓	✓		✓
Touch		✓		✓	✓
Drag/drop		✓		✓	✓
Animations	✓	✓	✓	✓	✓
Host		✓	✓	✓	✓
Video instructions					✓
Sustainability			✓		✓
Game's	✓			✓	✓
Parent teacher page	✓				✓
Learning	✓		✓		✓
Reading (at up level)					
Reward	✓				✓
App		✓	✓		✓

Competitive matrix

This was weak so I worked on this to make it up to date with my newest research.

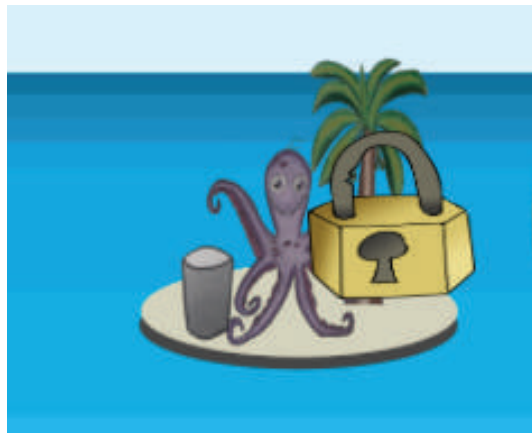
Analysis and Conclusions

Directed study journal: Responsive web Fall 15



Parent page access

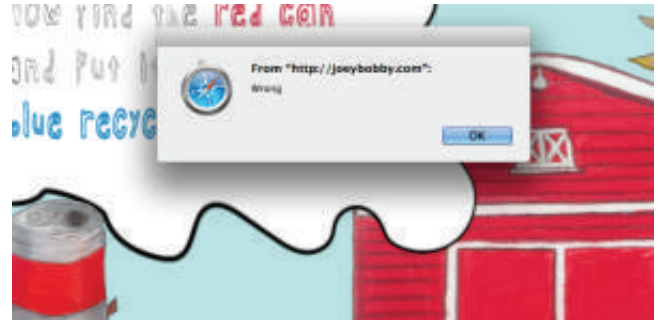
I noticed that most kids apps have a parents page, which is how many apps keep kids off pages intended for parents.



Lock

This is to show that some characters are yet not available.

http://joeybobby.com/gdsblog_801_04/



Wrong

This was an else statement I added to the code. This is to teach the kids what is right. Although, it may not be the best solution, it is a start.



Growing scene

My original idea for this page was a congratulations video. After much user testing most of my target audience would rather interact with the screen than watch an instructional cartoon.

Link to Portfolio

<http://www.joeybobby.com/portfolio.pdf>

Project links

All project links: Early through final coded prototype

Directed study blog links

http://www.joeybobby.com/gdswmn801_9/
<http://www.joeybobby.com/gam130/>
http://www.joeybobby.com/gdsblog_801_23/
http://joeybobby.com/gds801_18/
http://joeybobby.com/gdsblog_801_32/
http://joeybobby.com/gdsblog_801_04/

Early Invision prototypes links

<https://projects.invisionapp.com/share/WP1SSOE59#/screens>
<https://projects.invisionapp.com/share/G31UF28WC#/screens/52478306>

Early instructional cartoon links

<https://vimeo.com/111879252>
<https://vimeo.com/114714460>

Home page coded links

<http://www.joeybobby.com/Sustainakidshomev1/>
<http://www.joeybobby.com/Sustainakidshomev3/>
<http://www.joeybobby.com/Sustainakidshomev7/>
<http://www.joeybobby.com/Sustainakidshomeidea1/>
<http://www.joeybobby.com/sustainakidshomeidea2/>
<http://www.joeybobby.com/sustainakidshomeidea5/>

Farm scene coded links

http://www.joeybobby.com/sustainakids_famous/
http://www.joeybobby.com/sustainakids_famousv2/
http://www.joeybobby.com/sustainakids_famousv5/
http://www.joeybobby.com/sustainakids_famousv5/
http://www.joeybobby.com/sustainakids_famousv8/
http://www.joeybobby.com/sustainakids_famousv12/
http://www.joeybobby.com/sustainakids_famousv15/
http://www.joeybobby.com/sustainakids_famousv20/
http://www.joeybobby.com/sustainakids_famousv25/

Parent page links

http://www.joeybobby.com/teacher_page/
http://www.joeybobby.com/teacher_pagev2/
http://www.joeybobby.com/teacher_pagev3/
http://www.joeybobby.com/teacher_pagev6/
http://www.joeybobby.com/teacher_pagev7/

Final coded prototype

[http://www.joeybobby.com/iPad%20Air%20Mockup%20\(for%20Joey\)/ipad.html](http://www.joeybobby.com/iPad%20Air%20Mockup%20(for%20Joey)/ipad.html)

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