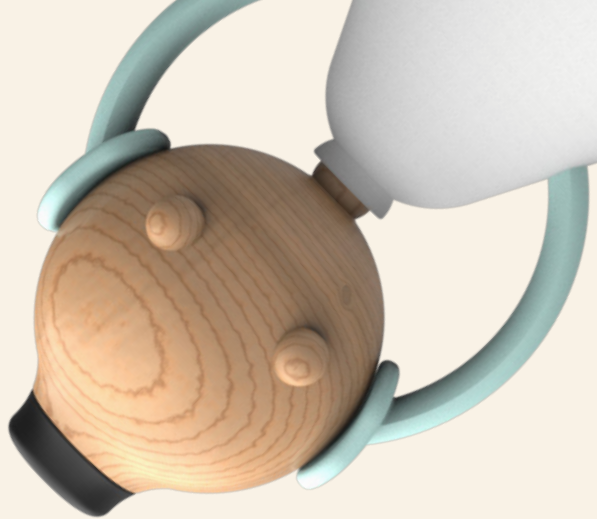




selaniions

your self-awareness companions



TABLE OF CONTENTS

DISCOVERY

Framing
Secondary Research
Primary Research
Synthesis & processing

PLAY

Finding opportunities
Initial Ideation
User Validation

EXPLORATION

Reframe & Core Issue
Levels Of Emotions
Concept Development
Prototyping & Play Testing

SELANIONS

The Characters
User Journey
Features & Functions
Lasting Thoughts



OVERVIEW

We have an artificial structure that is cultural imposed on us at a young age to automatically succeed, resulting in children developing a negative, emotional attitude toward failure. By learning about the experiences and reflections of parents and educators, this thesis focuses on discovering and finding design opportunities to help children build a healthy relationship with failure.

Redefining these challenges as a learning experience through a journey of unexpected outcomes, how might we help little ones better cope with failure and raise their self-esteem?

DICTIONARY DEFINITION

FAILURE

/ˈfæljər/ | noun

Omission of occurrence or performance. Specifically, a failing to perform a duty or expected action; a state of inability to perform a normal function; a falling short; deficiency.

WHAT IS FAILURE-AVOIDANCE?

Failure-avoidance is a pattern of behavior that an individual acts upon to reduce the amount of events of failure they experience in fear of risking and damaging their self-worth.

OPPORTUNITY SPACES

SPORTS

Sports strengthen an individual's mental and physical health where they gain skills, experiences, and confidence. With younger children, participation trophies are given out to all players to reward them for effort; however, it also acts as a shield from loss and disappointment.

ARTS & MUSIC

It takes time and practice to develop strong art and music skills; however, we often discourage children from doing so when we believe they don't have the natural abilities to be good at it. This often results in individuals being self-conscious about their abilities and shy away from utilizing their creative skills.

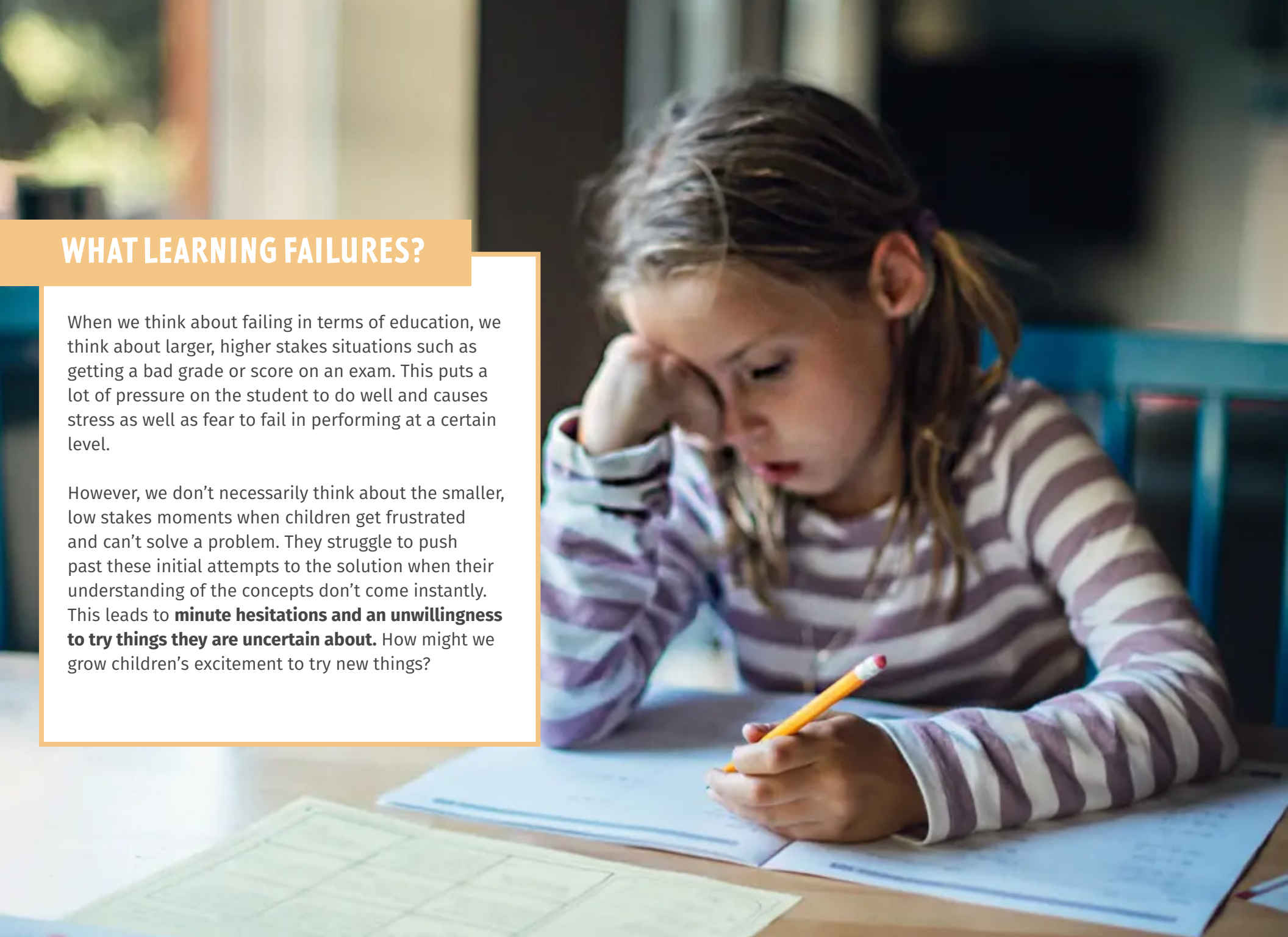
EDUCATION

For the majority of our youth we are put into the classroom to absorb information and develop our knowledge and basic learning skills. As an individual progresses through the education system, standardized testing, grade point average, class rank, and other factors place pressure and strain on students to perform and get the best results possible.

NARROWING IN ON LEARNING

Understanding and comparing the three areas of interest that I could explore, education is the space in which almost all individuals experience and has the most impact on a person throughout their lives. We place a lot of emphasis on our education to develop a strong foundation of knowledge and opportunities for the rest of our lives.





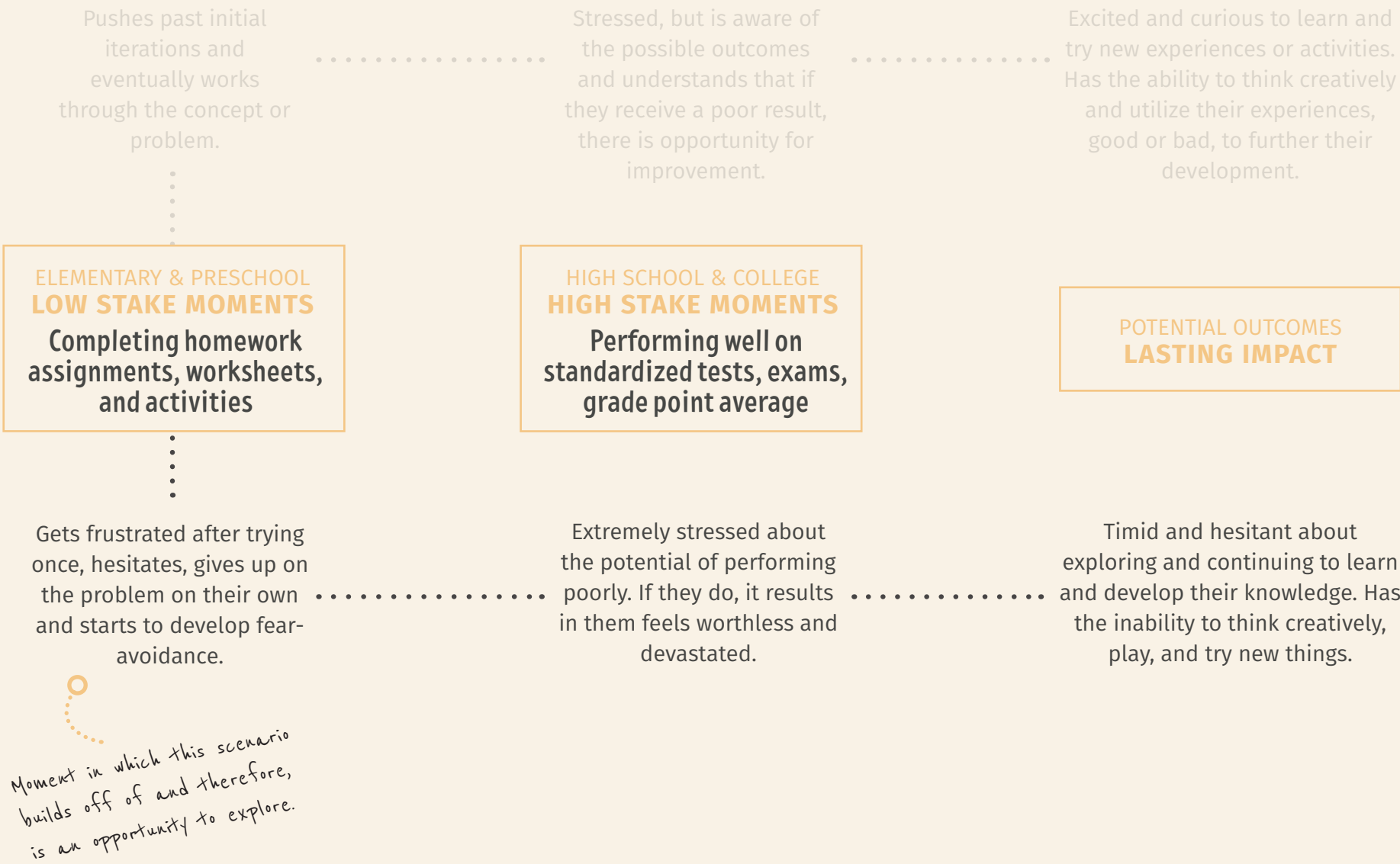
WHAT LEARNING FAILURES?

When we think about failing in terms of education, we think about larger, higher stakes situations such as getting a bad grade or score on an exam. This puts a lot of pressure on the student to do well and causes stress as well as fear to fail in performing at a certain level.

However, we don't necessarily think about the smaller, low stakes moments when children get frustrated and can't solve a problem. They struggle to push past these initial attempts to the solution when their understanding of the concepts don't come instantly. This leads to **minute hesitations and an unwillingness to try things they are uncertain about**. How might we grow children's excitement to try new things?

PROBLEM SCENARIO

POTENTIAL LONG TERM IMPACT
BASED ON BEHAVIORAL RESPONSE
TO MINUTE LEARNING FAILURES



SECONDARY RESEARCH

MINDSETS | METHODOLOGIES | THEORIES | INFLUENCES

MINDSET LEARNING THROUGH EXPERTS, PSYCHOLOGISTS, AUTHORS

KEN ROBINSON

FINDING YOUR ELEMENT

Encourages individual's to strive to find where they feel most at home and at one with themselves. Through attitude and utilizing one's opportunities, Robinson sees **life through the lens of a quest - a journey to finding what you love to do** - no matter your ability or performance.



MITCHEL RESNICK

LIFELONG KINDERGARTEN

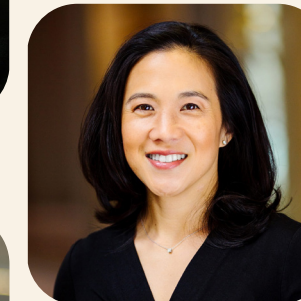
In kindergarten, kids learn through a creative learning spiral; however, there has been a transition in curriculum to a focus on worksheets and memorization. Resnick proposes a different approach to learning through **projects, passion, peers, and play** in new technologies and strategies to teach.



ANGELA DUCKWORTH

GRIT

Defines reaching success through the power of grit - **a combination of passion and perseverance of long-term goals**. Duckworth emphasizes the importance of happiness and grit coinciding to reach outstanding achievement and encourages individuals to blur the line between work and play.



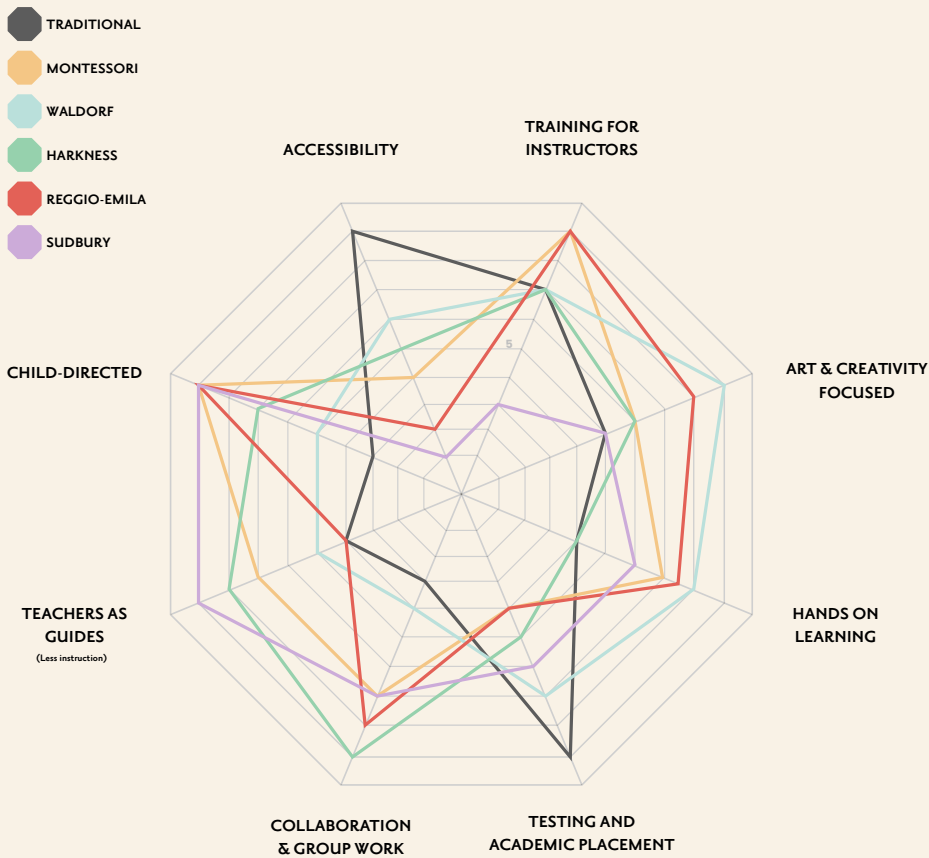
CAROL DWECK

GROWTH MINDSET

Founder of growth mindset - the belief that **one's skills and qualities could be cultivated through effort and perseverance**. Advocate for teaching kids that "challenges are interesting and easy is boring".



METHODOLOGIES



TRADITIONAL

Instructional based learning that stresses mastery of learning the core subjects: math, reading, writing, science, and history. Emphasis is on tests and grades.



MONTESSORI

Self-directed, high quality activities that promotes learning and collaborative play. Montessori learning is mixed-age groups, but splits curriculum into stages.



WALDORF

Focus is on spirit, body, and soul. Waldorf education is dedicated to growing enthusiasm for learning and eliminates performance as a motivation for learning.



HARKNESS

Learning as a democratic affair. Students sit around a table and have in depth discussions about topics, building confidence and communication skills.



REGGIO-EMILA

Curriculum and in depth projects of concepts and ideas stem from the interests of the child. There is an emphasis on large and small collaboration.



SUDBURY

Rules established democratically where students get to determine what they do day to day. Intended to create kind and empathetic decision makers.

LEARNING THEORIES



ALBERT BANDURA SOCIAL LEARNING THEORY

One of the most influential learning theories, social learning theory emphasizes modeling - a development through imitation or observation. Reinforcement and punishment of an individual's history, promise of the future, and observations are factors that play into the child's motivation to imitate.

- 1 people can learn through observation
- 2 mental states are important to learning
- 3 learning doesn't equate to behavior changes



LEV VYGOTSKY SOCIAL CULTURAL THEORY

In social cultural theory, the focus is on culture - the values, beliefs, customs, and skills for a social group - is transmitted to the next generation. Vygotsky's theory viewed cognitive development as a socially mediated process in which children depend on assistance from adults to help them tackle new challenges.

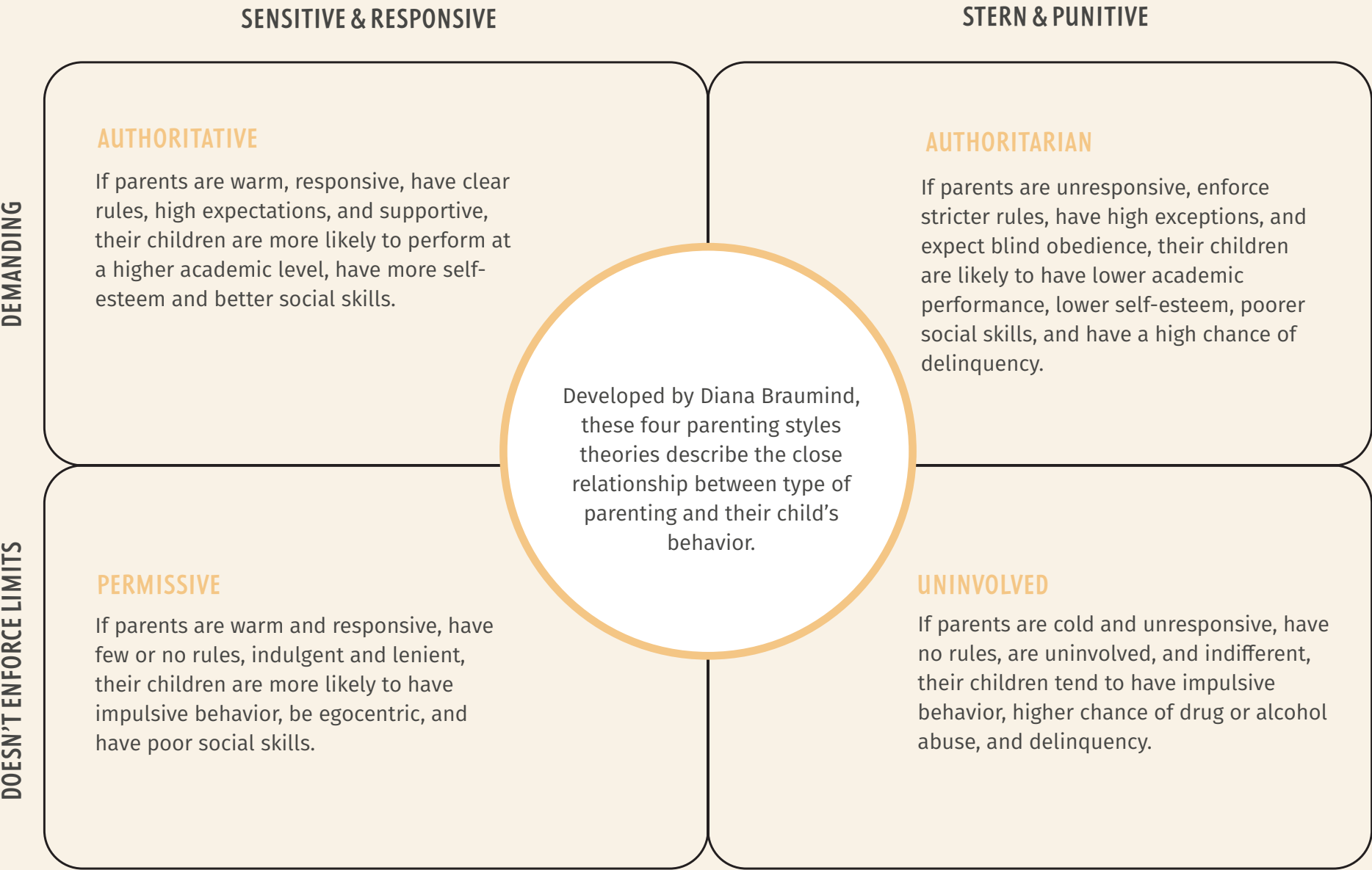
SCIENCE BEHIND FAILURE

NEUROPLASTICITY BIOLOGICAL IMPACT

Failure is important in the biological processes behind learning. Neuroplasticity describes the brains ability to change through learning by creating and breaking neural connections at a high rate and level of complexity. When the brain makes the wrong connections and individuals experience failure, the connections weaken through a process called axon terminal arbor pruning. This helps an individual's brain to eliminate information that is not useful and helps individuals change course.



PARENTING STYLES



CULTURE The ways in which a collection of people process and make sense of their experiences.

UNITED STATES

Emphasis on individualism, focusing on freedom, choice, and autonomy.

Parenting styles aren't always the sole factor that play into a child's behavior and performance. Other factors include socio-economic background and ethnicity. African-American student's with authoritative parents without any peer support do not perform as well academically. Asian-Americans with authoritarian parents and have peer support results in their best school performance.

WESTERN COUNTRIES

More likely to believe school performance is determined by ability. These countries are less suggestive of ways that personal effort might improve performance.

ITALY

Sees child-development as more child-driven and as a naturally unfolding phenomenon.

CHINA

Parents typically believe school performance is determined by effort. They have a "try harder" mentality rather than innate ability as a means of doing better.

PHILIPPINES

Don't see their children as responsible for failures in care giving, but do take responsibility for those failures; however, they don't take responsibility for their child's successes.

TAKE AWAYS

By understanding the ways in which parent's view their own impact on their child's successes and failures, I learned more about the values and important beliefs around the world. This helped develop a foundation of the different types of backgrounds and support systems that contribute to a child's development and learning process when zooming in on the American education system.

PRIMARY RESEARCH

SURVEYS | DISCOVERY & EXPERT INTERVIEWS



SURVEY

I conducted a qualtrics survey to gain a greater sense of knowledge and foundation of people's perception of failure and success. By collecting data from a larger audience, I was able to utilize the insights from the survey to have a better understanding of how to redefine failure in the context of my thesis.

TARGET AUDIENCE

Pushed out on various social medias and communities, the survey was open to participants of all ages and occupations. Although the most valuable insights would come from the parent and educator respondents, there was also benefit in seeing the long term perspective by observing reports from individuals in every stage of life.

RESULTS

After two weeks of being active, the survey had a total of 74 participants, consisting of 22 parents, 16 educators, and 36 who were neither.



22

parents



16

educators

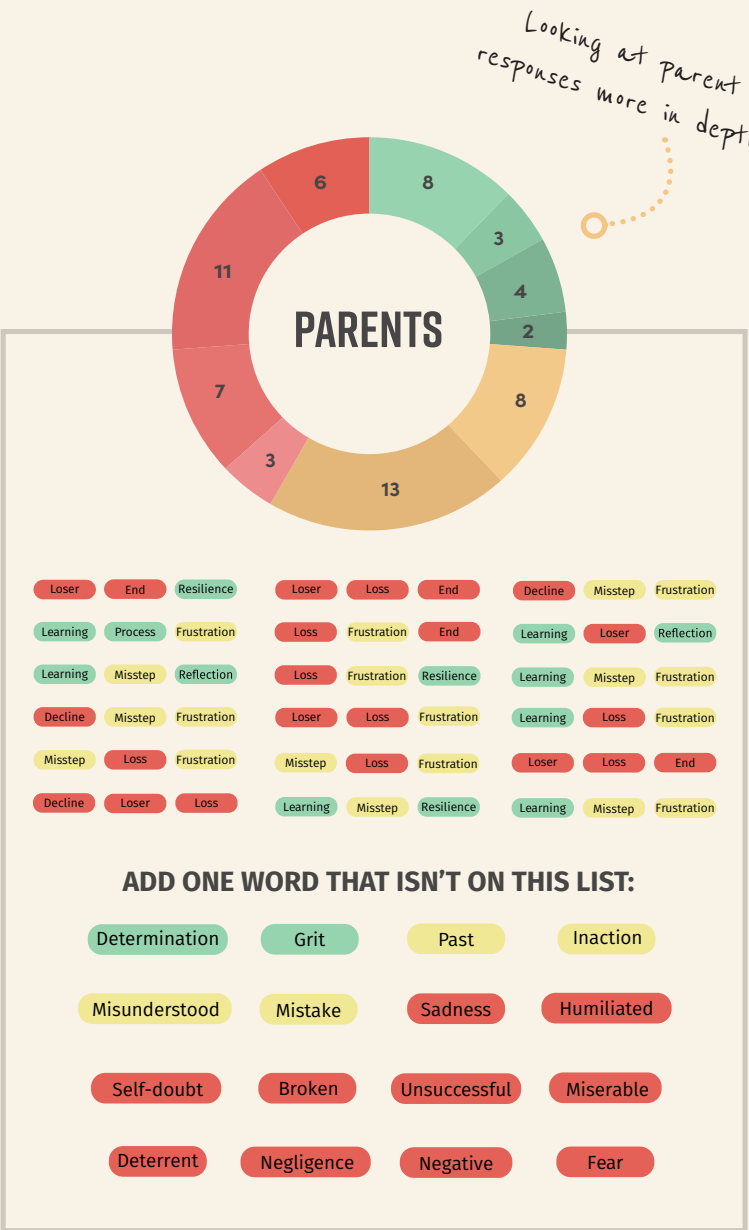
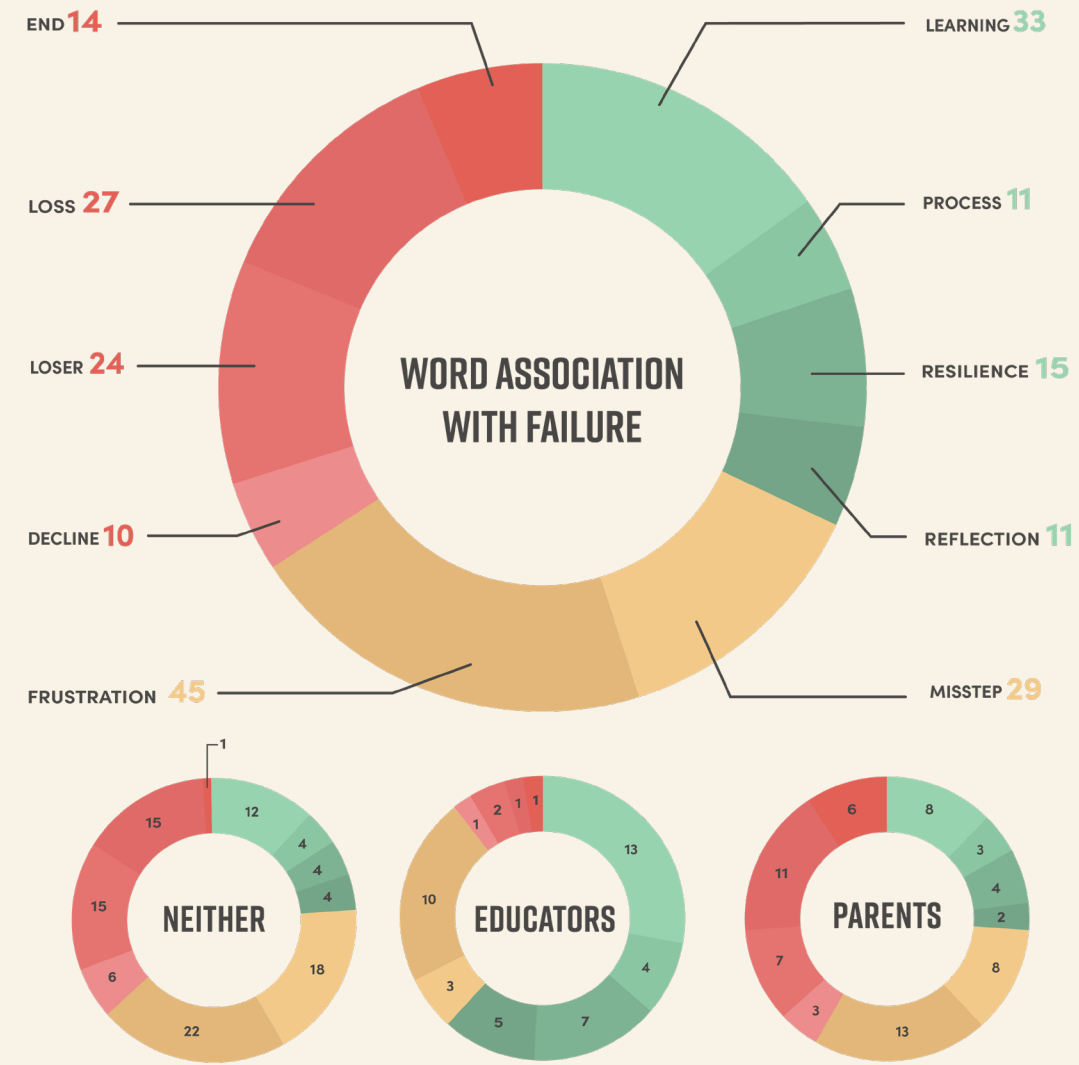


36

neither

QUESTION:

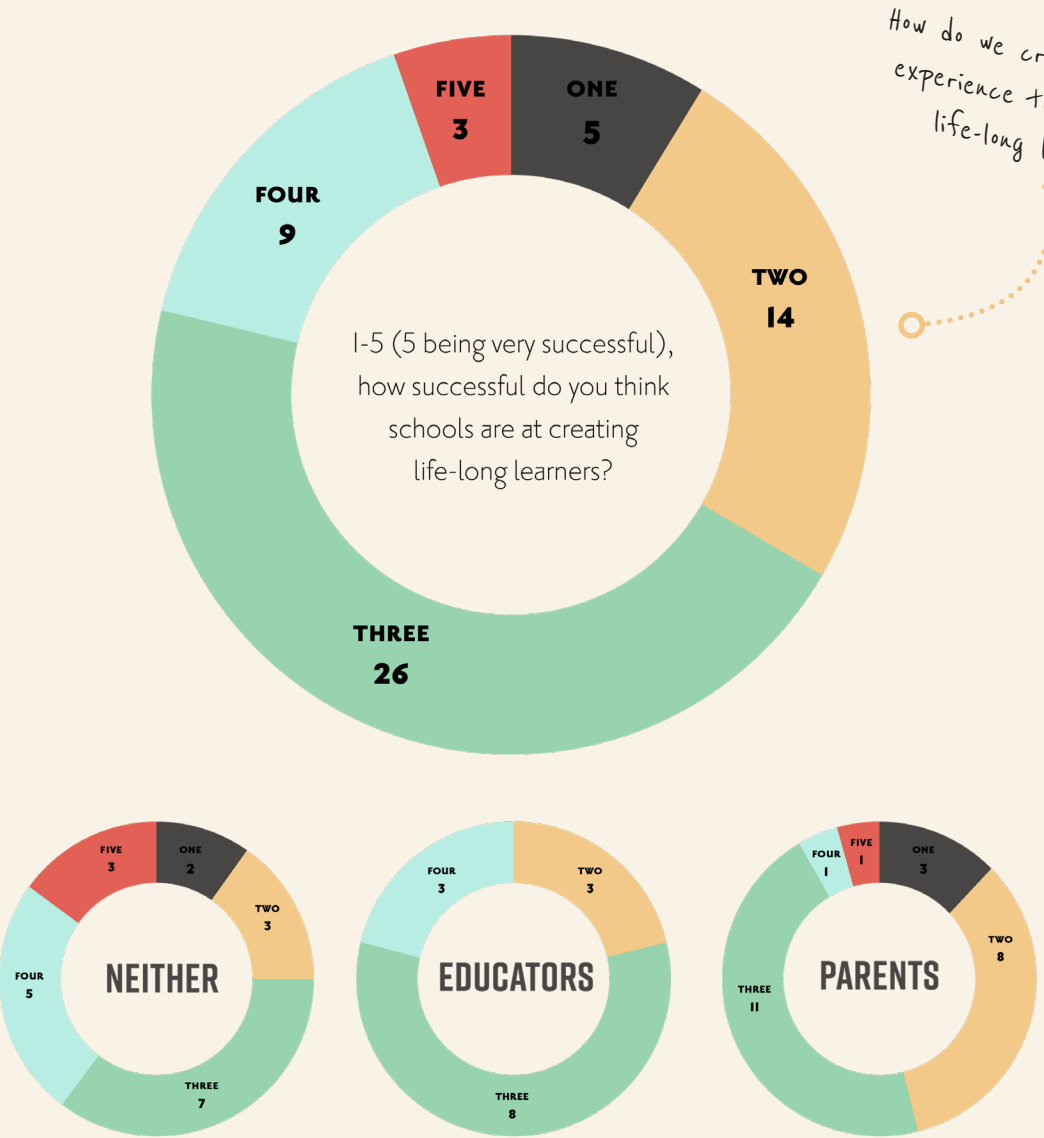
Select three words you associate most with failure. Respondents were given a list of words ranging from positive to negative to understand their own perception of the experience.



How do we get parents to have more positive associations with failure?

QUESTION:

On a scale of 1-5 (5 being very successful), how successful do you think schools are at creating life long learners?



How do we create a learning experience that results in life-long learners?

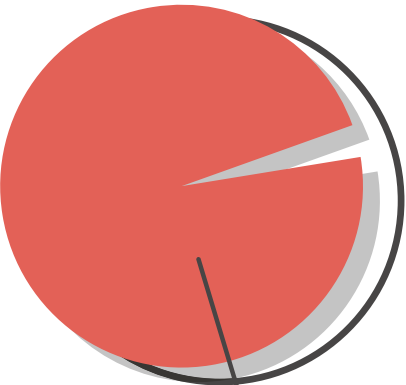
KEY TAKE AWAYS

From both of these questions, it was interesting to compare the perspectives between parents, educators, and others. The main insights I gained from the words the respondents associate with failure is that educators often have a more positive perception of the experience compared to parents who are more likely to associate very negative words with failure.

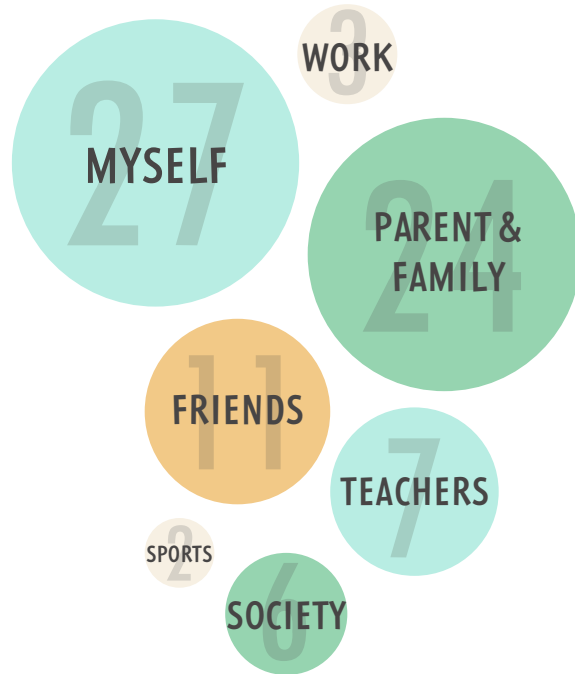
Analyzing the survey participants' responses to the question inquiring about the effectiveness of schools in creating life-long learners, the overall data shows that most participants rate schools as very average with a slight lean toward lower ratings of one and two. In this data, it shows the respondents being fairly indifferent about schools fostering a continuous excitement for learning in individuals.

QUESTION:

Have you ever felt pressure to succeed? Where did that pressure come from?



97%
of survey participants
feel pressure to succeed.



INSIGHTFUL RESPONSES

"A student in my class did not understand a math concept and completely shut down and refused to do work because they didn't understand the concept."

"I wanted a job in a profession that my parents did not approve of. I did it anyways because it was what I wanted to do and everything worked out fine."

"They become easily frustrated when they see others learn math facts faster than they do."

"I have seen students in disbelief that they are capable of learning or accomplishing something. Usually it is because they aren't getting the support they need at home. Sometimes it has resulted in them seeing the school counselor and even being placed in helpful programs or getting resources to help them in a specific subject"

"In school, children are constantly trying to get everything correct and not show failure. When I was in school, I viewed failure as a very negative thing but as an educator I view it as an opportunity to grow."

Educator responding to specific instances in which they have felt pressure to perform.

KEY TAKEAWAYS

Not only does each person have their own definition or view on failure, the definition they perceive for themselves varies from the definition of failure they see for someone else.

We put a lot of pressure on ourselves and feel like people put a lot of expectations from other people, but when it comes to being an outside perspective of observing, evaluating, and understanding someone else's journey, our narratives around failure shift drastically and is a lot more optimistic.

FINALIZING THE FRAMEWORK

DEFINING TERMS

Important terms and concepts to understand moving forward.

ACCOUNTABILITY

Setting expectations of a specific result and of a particular quality.

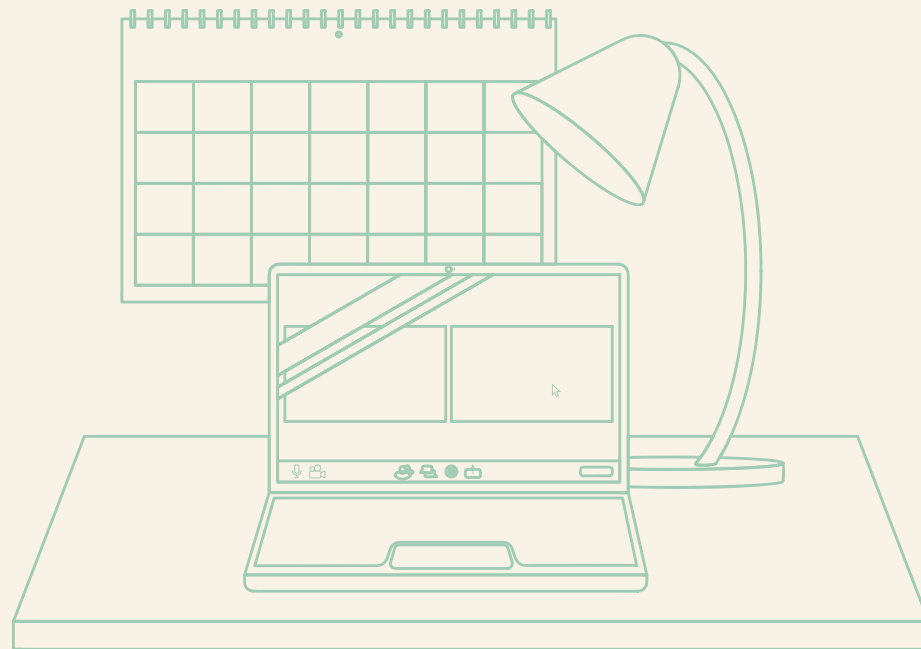
LIFE-LONG LEARNERS

Lifelong learning is the “ongoing, voluntary, and self-motivated” pursuit of knowledge for either personal or professional reasons. It is self-initiated education that is focused on personal development.

UNEXPECTED OUTCOMES

When children go about an activity or experience, there is a desired and expected outcome of a certain result. When the actual ability of the child doesn’t match up to this anticipated outcome, it’s unexpected and can cause frustration for the child.

A NEW FAILURE... *A learning experience of growth and empowerment through a journey of unexpected outcomes.*



DISCOVERY INTERVIEWS

TALKING TO EXPERTS, PARENTS, EDUCATORS, & CHILDREN

OVERVIEW & GOAL

Since my focus is on children and they don't necessarily have the ability to reflect on their experiences quite yet, I narrowed in on talking to parents and educators as proxy users. Both parents and educators work most closely to my target audience and act as experts since they are able to reflect upon their own experiences as well as recall observations of their children or students going through these challenges.

*See more in depth analysis of interviews in appendix.

RESEARCH QUESTIONS

How have parents' and educators' attitudes toward failure evolved over time and how do they influence the attitudes of young learners?

How do parents and educators feel when they observe their kids/students experiencing failure?

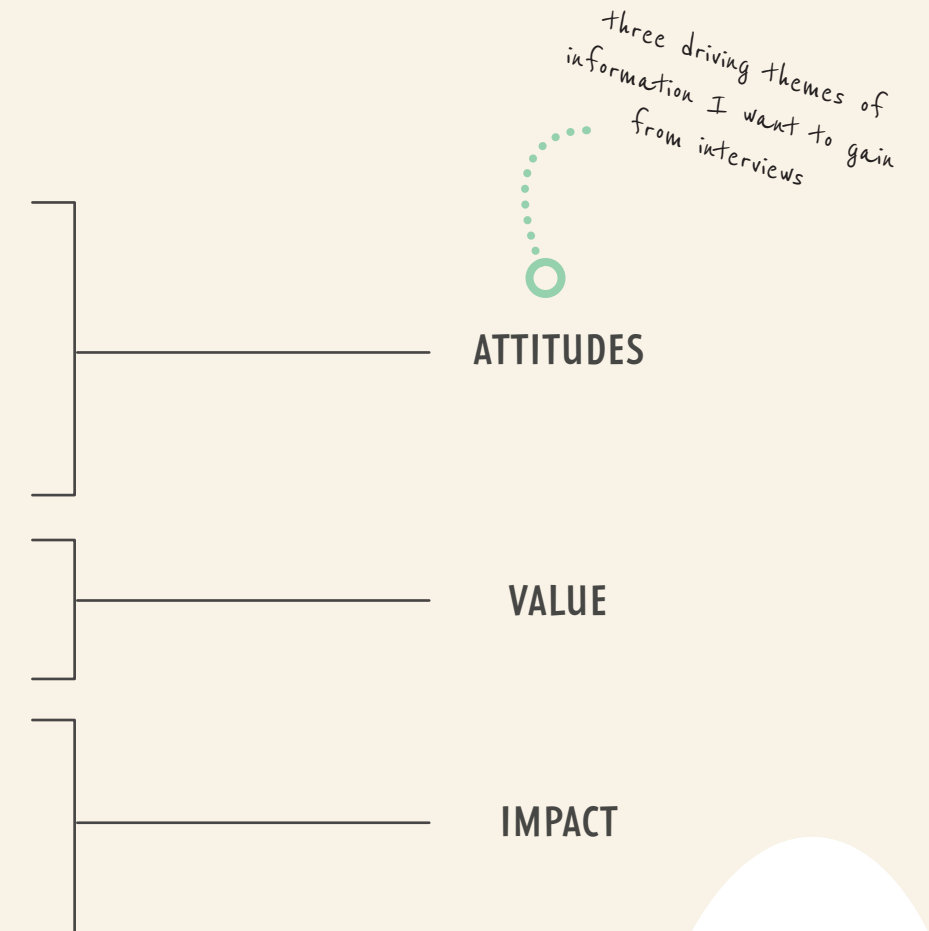
How do kids feel when they experience failure?

How are children taught to view failure?

How much do we value failure in our learning process?

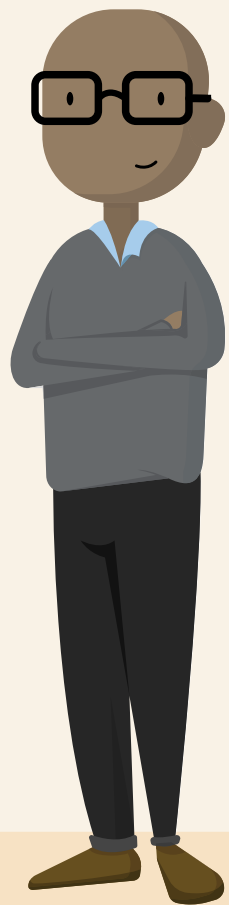
How have the failures we experienced at a young age impacted our lives later on in life?

Do parents and educators try to prevent or reduce the amount of failure their children experience? If so, why?



EXPERTS

Child Development Professor with research interests in creating frameworks for social emotion learning.



KEY TAKEAWAYS:

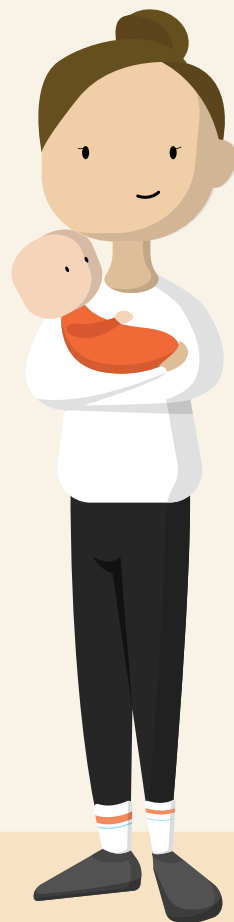
- 1) Children don't actually view things as failure or at least they don't define it that way.
- 2) We are taught that if we have to fail, we have to fail fast and move on quickly.
- 3) People don't actually remember all of the failures they experience that occur in their process to get to the outcomes. They can only really recall the result.

PARENTS

Parent of three younger children, an eight grader, a sixth grader, and a fourth grader.

Parent of three younger children, a sixth grader, a fourth grader, and a third grader.

Parent of older children as well as a preschool and elementary school educator for over 20 years.



KEY TAKEAWAYS:

- 1) There is an aspect of forgetting that we shame children for that leads them to fear it or not want to make mistakes.
- 2) Once you succeed, you're expected to only continue to succeed from then on.
- 3) There is a communication gap between the child and the parent or teacher that is frustrating for the kid.

EDUCATORS

Younger teacher at a Montessori School for five years.

AP psychology teacher focused on helping students develop a growth mindset.



KEY TAKEAWAYS:

- 1) If kids aren't necessarily good at something they think they would be really good at, they give up.
- 2) Students that cheat, are willing to give up their integrity and self worth to get the results they want.
- 3) There is a fear of not being respected and weakness that individuals feel when they make mistakes.

CHILDREN

Fourth grader with a passion for art and drawing.



KEY TAKEAWAYS:

- 1) There is a strong correlation between a child's interest and their own perceived level of ability.
- 2) Curriculum pace is important in keeping children engaged and retaining information.
- 3) Children want to play and the classroom environment and being cooped up inside all day doesn't help them stay engaged.

KEY INSIGHTS

IMPORTANT QUOTATIONS PULLED
FROM ALL USER INTERVIEWS

EASIBILITY

“I don’t really like music because my music teacher goes fast and then quizzes us...[the quizzes are just hard.]”

“[Children] believe ‘oh if I’m not going to succeed the first time, I’m not going to try the second time...I’m just going to do something easier that I know I can do.”

“I wish I could say ‘oh I would’ve tried harder,’ but at the time, that was as hard as I could try.”

“...and I noticed her starting to say, ‘Oh I hate math now, it’s hard.’”

EXPECTATIONS

“The expectations put such a pressure on them that they would give up honesty and integrity to not fail.”

“All of my kids get it from me, where we try our best, and we always think that if we try our best, we are always going to have positive results - whether its good grades, a good job”

“I saw that she was going to get there eventually, it just took a little longer than I think she wanted.”

“It seems like once you win, your only other option is disappointment.”

MOMENTUM

“someone who progresses through that moment, doesn’t accept the failure...they go ‘I’m not going to have this happen again’...maybe for that other group can never come to that conclusion.”

“If you don’t have the concept of failure, then you don’t have to rush through the first attempts.”

“As a starting teacher I had that fear of ‘I don’t want the kids to not respect me because of my mistakes’ and I did not embrace it as an opportunity to show them how you can grow.”

PERMANENCE

“It was not pervasive...in a way that he felt it for a long time.”

“I don’t remember all of the tries that it took me to get there, I just remember finally [being able to stack the blocks up to the ceiling].”

“After I won, no one ever realized I had ever lost.”

DESIRE

“Grades and tests are undermining that intrinsic motivation and desire to just learn because you love it.”

“that’s where she blossoms because that’s where she gets her joy and she knows she’s good at it.”

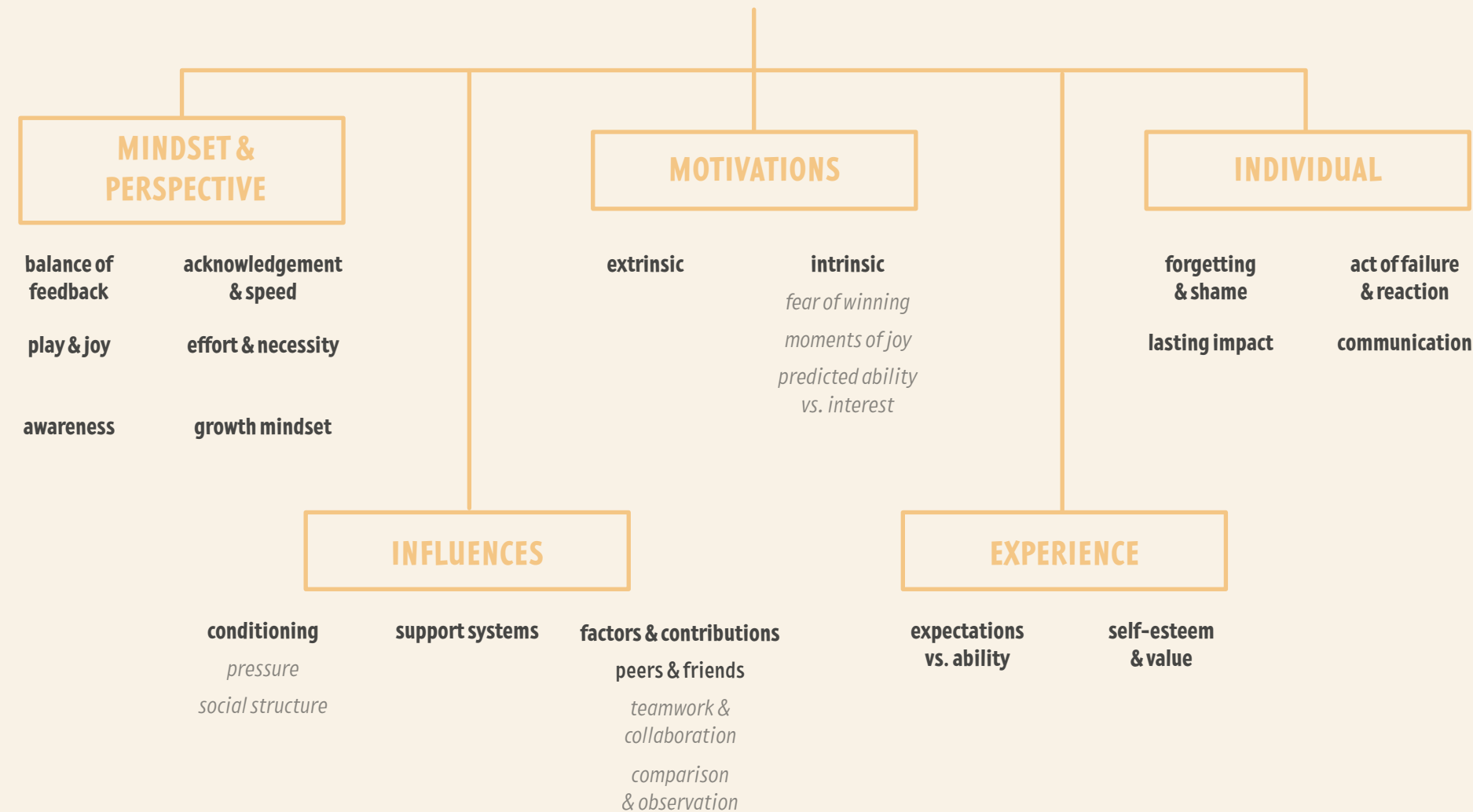
“I don’t want to stay inside and work.”

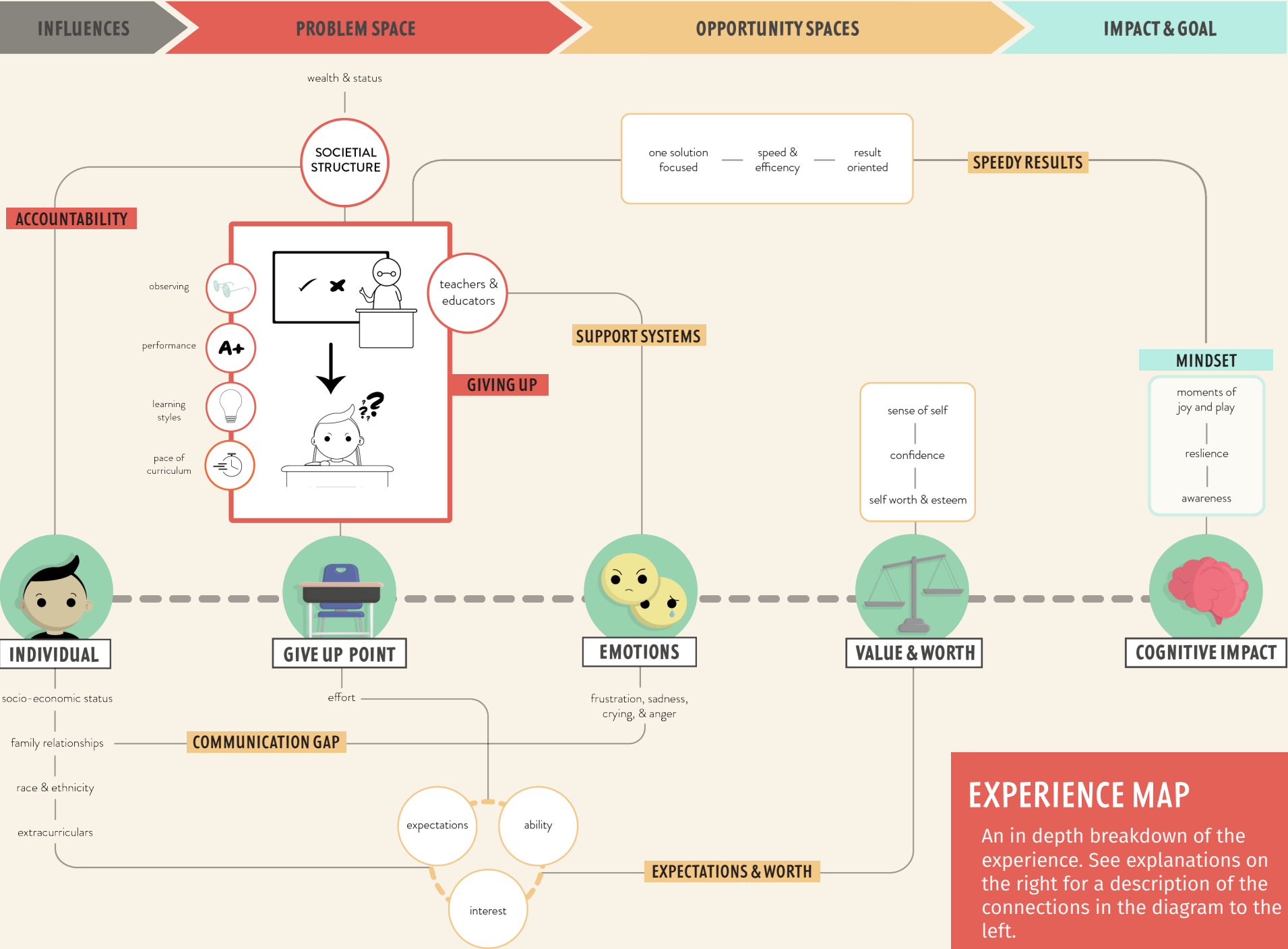


SYNTHESIS

CHILDREN, FAILURE, & LEARNING

affinity diagramming





ACCOUNTABILITY

Society places expectations and pressure to succeed measured through the amount of wealth and eminence an individual obtains. This expected goal is ingrained in individuals in the early stages of their learning journey.

SPEEDY RESULTS

We are so focused on the end results and feel the need to quickly fail so that we can get to success faster. What happens when we take the time to slow down and reflect on our failures?

MINDSET

The lasting impact and goal of the learning experience needs to help shape a perspective around failure that driven by an individual's growth. It needs to spark moments of joy, build resilience, and raise awareness within these minute experiences.

GIVING UP

In our education system, we teach one method and solution. This unknowingly places a lot of pressure on the young students to comprehend it instantly.

SUPPORT SYSTEMS

A support system is important for a child to feel secure and able to explore different processes when learning. Since most of these frustrations occur in the classroom, teachers become the main source of support for the students.

COMMUNICATION GAP

Children need a support system in order to cope with their emotions, but sometimes can't express their feelings or don't feel comfortable with talking about it.

EXPECTATIONS & WORTH

When our ability or end result don't match with our initial expectations, it's unexpected. This gap and the end result is the way in which we measure how valuable we see ourselves.

My opportunity is to empower children in becoming life-long learners through the creation of a learning experience driven by curiosity, exploration, and resilience.

How might we design an experience that builds a child's sense of self and worth through learning processes?

HOW MIGHT WE STATEMENTS

How might we encourage a child's perception of their own value and worth through fostering moments of joy in frustrating learning experiences?

How might we improve a child's ability to communicate their emotions and needs when experiencing frustrations?

How might we assist kids in seeing their value through the reflection of their failures?

How might we relieve the pressure attributed to accountability on children to foster comfort and security in tried failures?

How might we foster and strengthen a greater sense of self and worth in children to reduce failure avoidance?

In facing the learning experiences that challenge a child's level of confidence and ability, how might we foster reflection to help improve their emotional experiences with these frustrations?

How might we foster comfort in a process approach to learning that allows children to be more accepting of tried failures?

How might we increase children's awareness of potential outcomes to help children be more accepting of "tried failures" as part of the learning process?

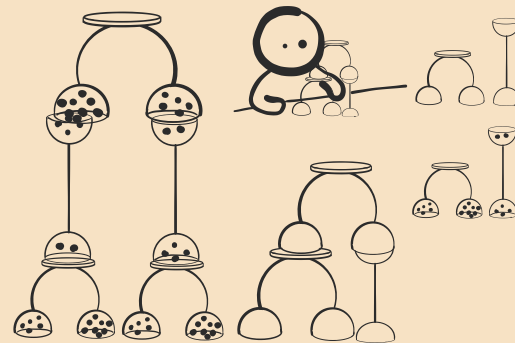
IDEATION



NARRATIVE BUILDING

Story building that helps children explore and evaluate emotions and behavior through the child's own control of the narrative.

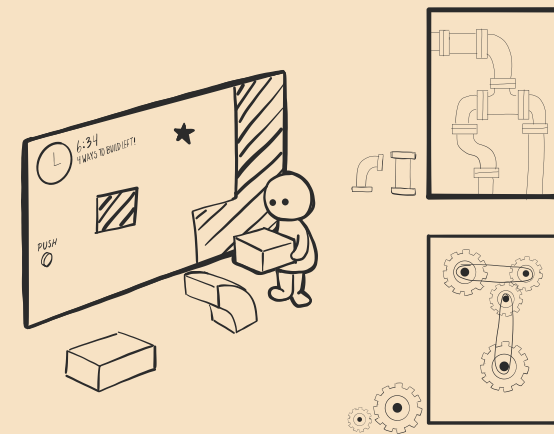
How can storytelling be utilized to help a child express and evaluate their experiences?



CONSCIOUS BUILDING

Practicing attentiveness and patience through meticulous building.

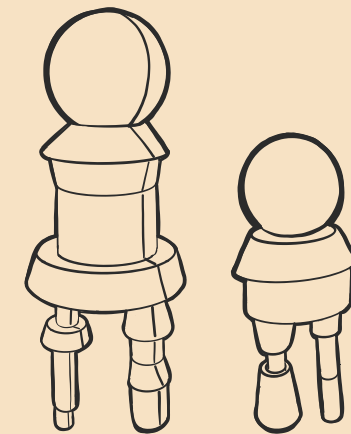
How can you give children the space to playfully be frustrated and grow resilience through suspensive moments?



DIVERGENT THINKING

A thought process or method used to generate creative ideas by exploring many possible solutions.

How can you encourage a multi solution strategy mindset?



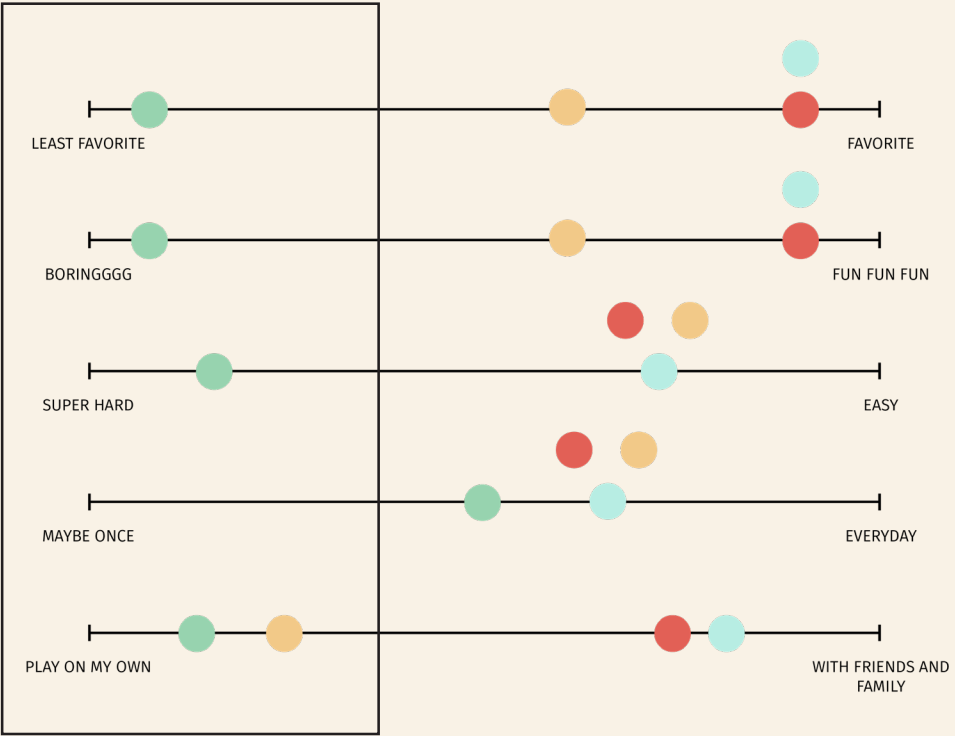
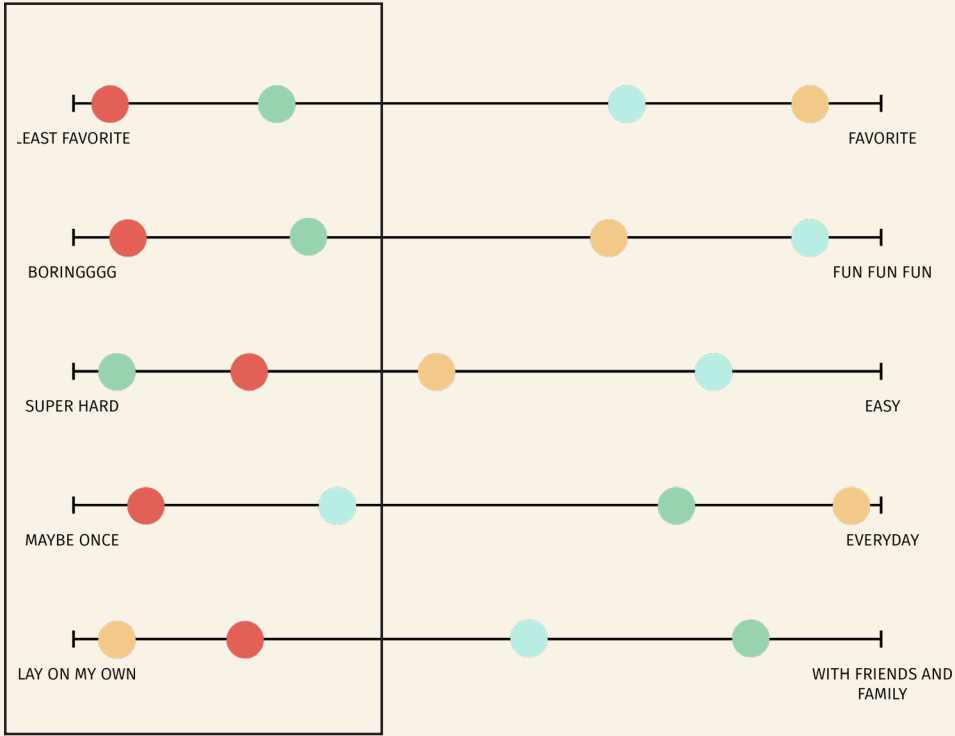
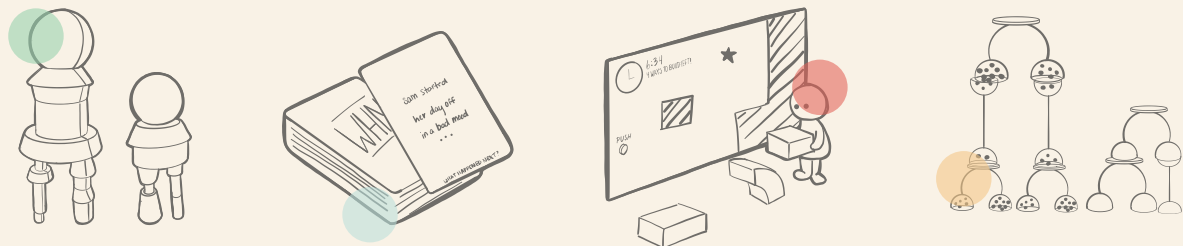
PREDICTIVE THINKING

Helping the child regulate their emotions and increasing their awareness of personal strengths and weaknesses.

How can you visually predict and evaluate your day through symbolic blocks?

VALIDATION

Having developed four concepts that explore different methodologies to combating or mitigating the cognitive obstacles faced during moments of failure, they were shown to experts and children of the target age.



INSIGHTS

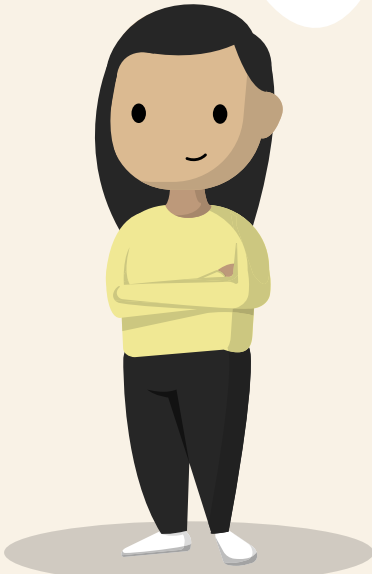
"How will they be able to regulate their emotions? It's important that they are able to recognize and acknowledge 'oh I'm this level of angry with this right now'"

Expert



"I could see myself using it when I'm frustrated and getting the problem wrong and when my teacher is getting mad at me."

4th Grader





THE CORE ISSUE OF FAILURE

THE ISSUE OF
PERCEPTION

Perception is the way in which an individual sees their worth or tries to present their worth through the different lenses of themselves and others. When comparing the inner self - how a little one sees their skills, weaknesses, and worth inside themselves with the outer self - how they see themselves through their external environment, it became clear that the majority of how an individual understands their worth and how they grow their sense of sense is heavily dependent on the feedback they receive externally from their peers, parents, and educators.

OPPORTUNITY

How might we design a toy that
builds a child’s sense of self
through a playful, yet failure
driven experience?



DESIGN CRITERIA

- | | | |
|---|---|---|
| <p>Pose Challenges</p> <p>the experience needs to give children a challenge without being too intimidating to the point in which they don’t want to play with the toy.</p> | <p>Explore Emotions</p> <p>either induce the emotions or create an environment that explores these emotions and allows the child to respond to them.</p> | <p>Allows for Creation</p> <p>needs to give the child the ability to build, create, and explore their own. By creating their own experience, they have something they can be proud of.</p> |
|---|---|---|

REDIRECTION



ACTION SPACE
observable behavior

the give-up moment. Children get frustrated because there is a discrepancy between their or what they think is the expectation and the reality of their ability.

Carol Dweck has existing workshops in order to implement growth mindset into the education system. There are also many teachers that already try to cultivate new mindsets surrounding personal development.



MINDSET & STRATEGY
cognitive development

growth mindset – the belief that one’s skills & qualities could be cultivated through effort and perseverance. A strategy already being implemented in a variety of workshops.

The start of the journey. This area was explored during the research phase of the thesis. Failure is necessary. Therefore, the solution shouldn’t try to intercept the moment of failure.



EMOTIONAL REGULATION
personal perception & self awareness

children don’t necessarily know how to handle or aren’t able to track their emotional journey. By understanding their emotions, they will be able to learn how to cope with the frustrations and fear.

The opportunity. Experiencing failure is an emotional journey that currently has little to no current solutions or strategies created for children to understand and cope with them.

THE SELF-CONSCIOUS EMOTIONS

The self-conscious emotions are a set of higher-level emotions that play a central role in motivating & regulating almost all people’s thoughts, feelings, and behaviors; each involves injury to or enhancement of our sense of self. These emotions drive people to work hard in achievement and task domains.

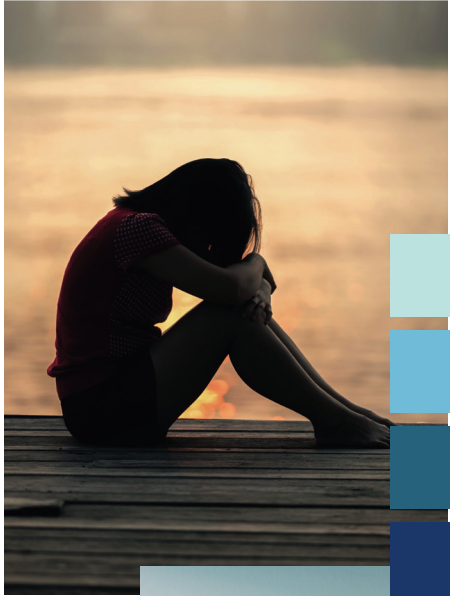
By the middle of their second year, children become aware of the self as a separate, unique individual; self-conscious emotions play important roles in children’s achievement-related and moral behaviors.

What are the emotions that are induced **externally** by the feedback we receive from our peers, parents, and educators?

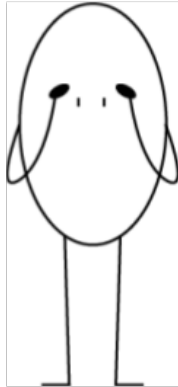


THE SELF-CONSCIOUS EMOTIONS

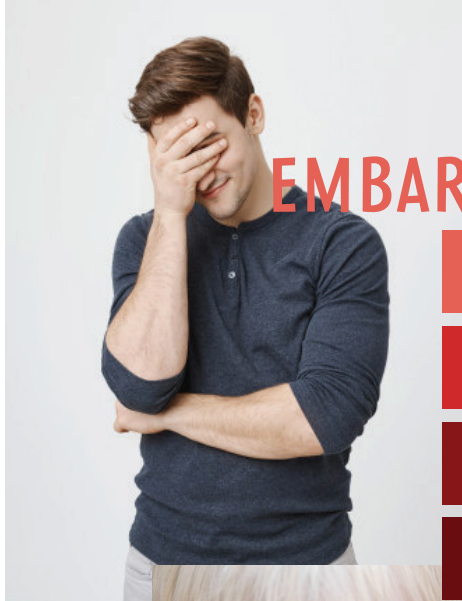
Exploring the four main self-conscious emotions. What do they mean? How can I capture their essence through gesture.



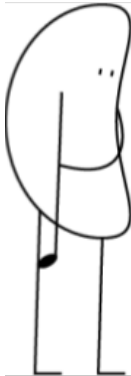
SHAME



A painful feeling of humiliation or distress caused by the **consciousness of wrong or foolish behavior**; (of a person, action, or situation) make (someone) feel ashamed.



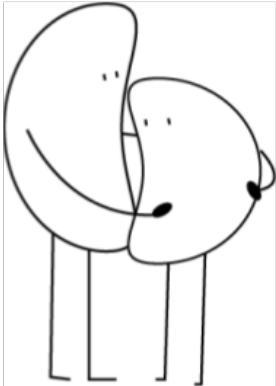
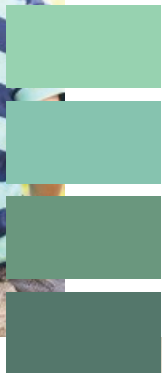
EMBARRASSMENT



To cause to experience a state of self-conscious distress; **to place in doubt, perplexity, or difficulties**; make uncomfortably self-conscious; disconcert.



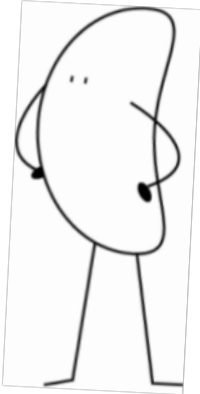
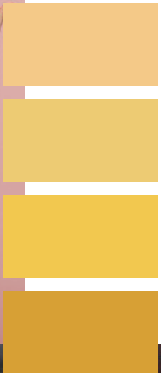
EMPATHY



The capacity to understand or feel what another person is experiencing from within their frame of reference, that is, the **capacity to place oneself in another's position**.

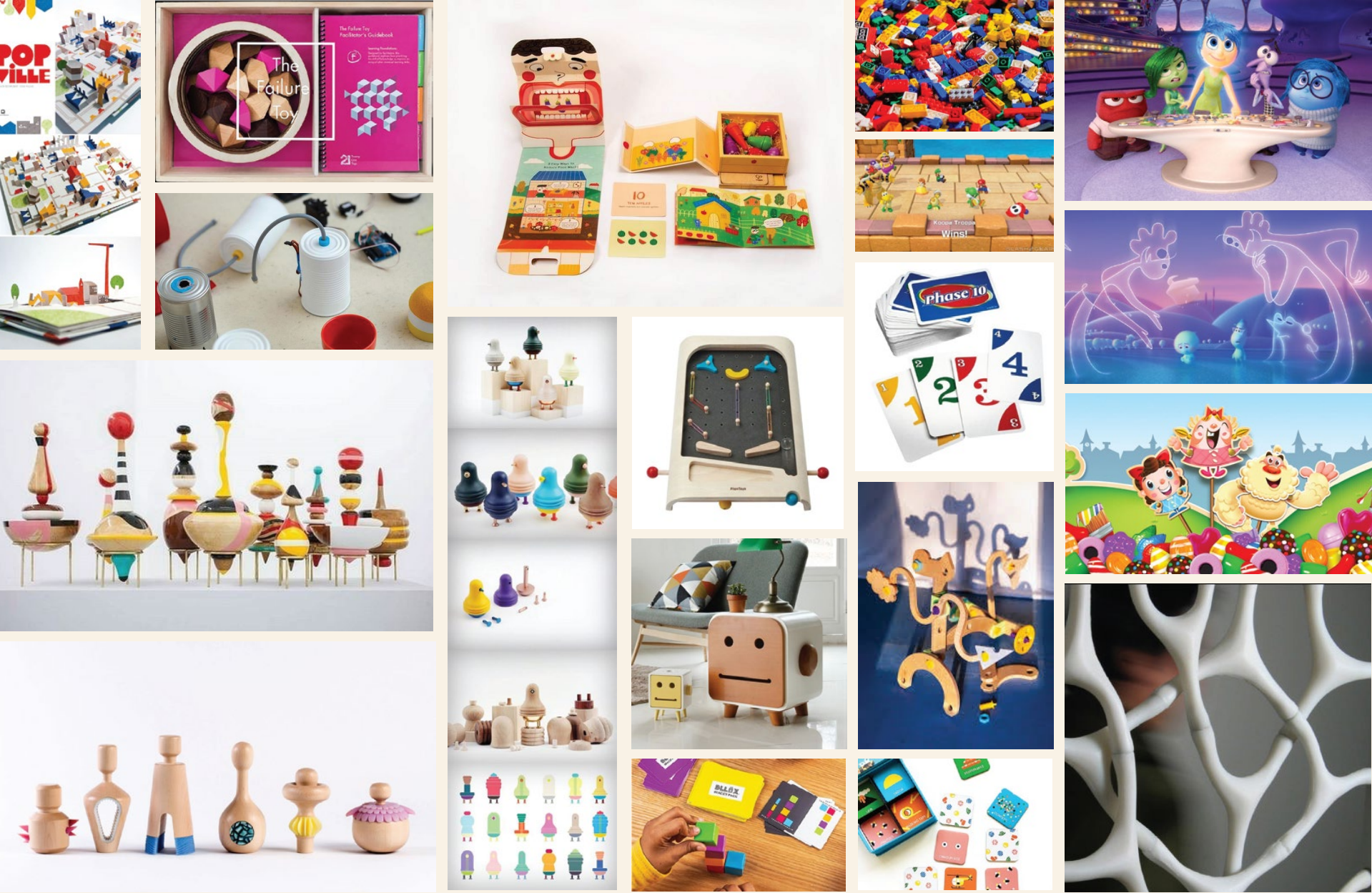


PRIDE



A feeling of **deep pleasure or satisfaction derived from one's own achievements**, the achievements of those with whom one is closely associated, or from qualities or possessions that are widely admired.

EXPERIENCE INSPIRATION

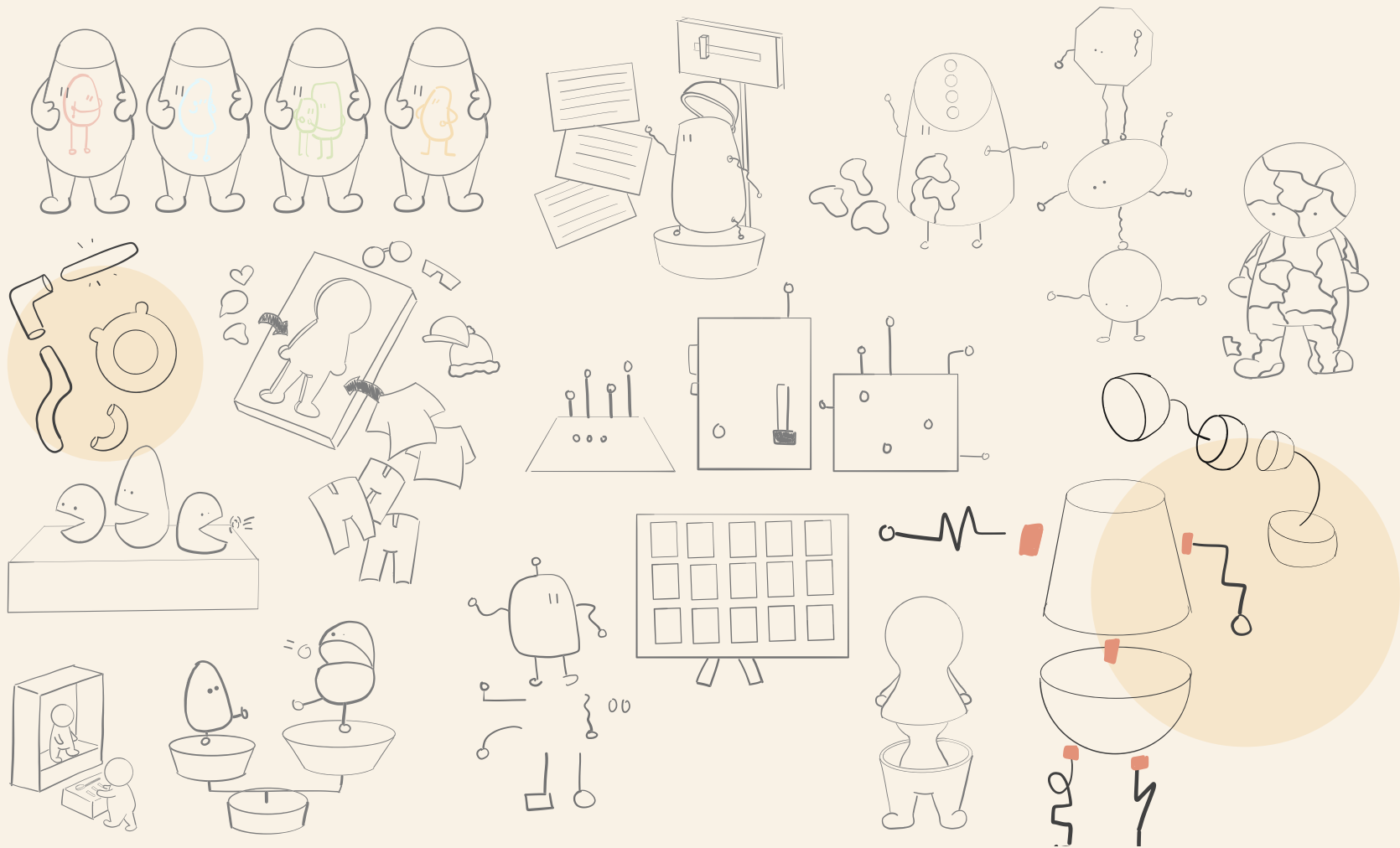


AESTHETIC INSPIRATION



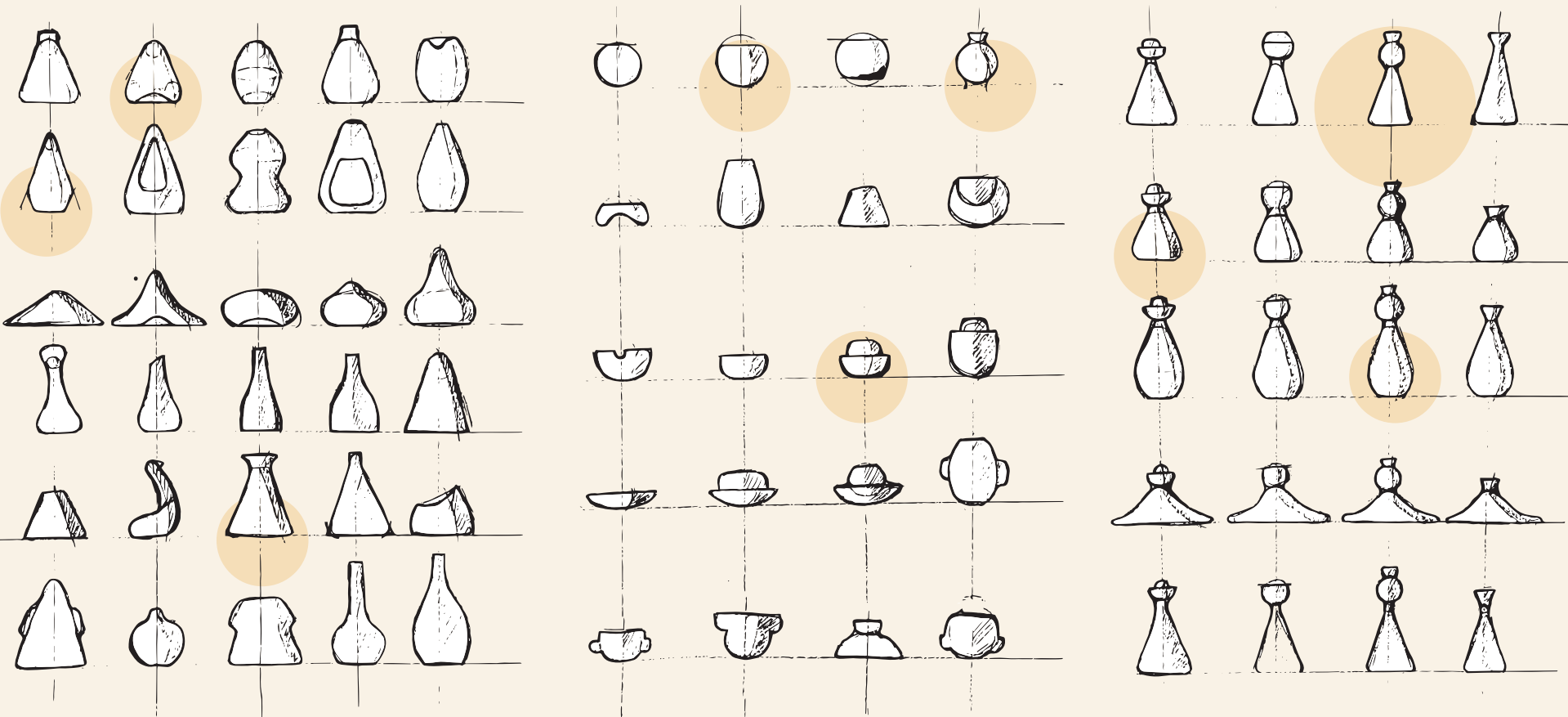
IDEATION

Through another round of ideation focusing on the prompt of exploring the self-conscious emotions through prompted failure experiences, I landed on a set of emotional building blocks that when building, would embody the different emotions.



FORM

After finalizing the concept, I worked on developing the form of the building blocks. The forms were developed by abstracting the body while trying to keep the form recognizable for children.

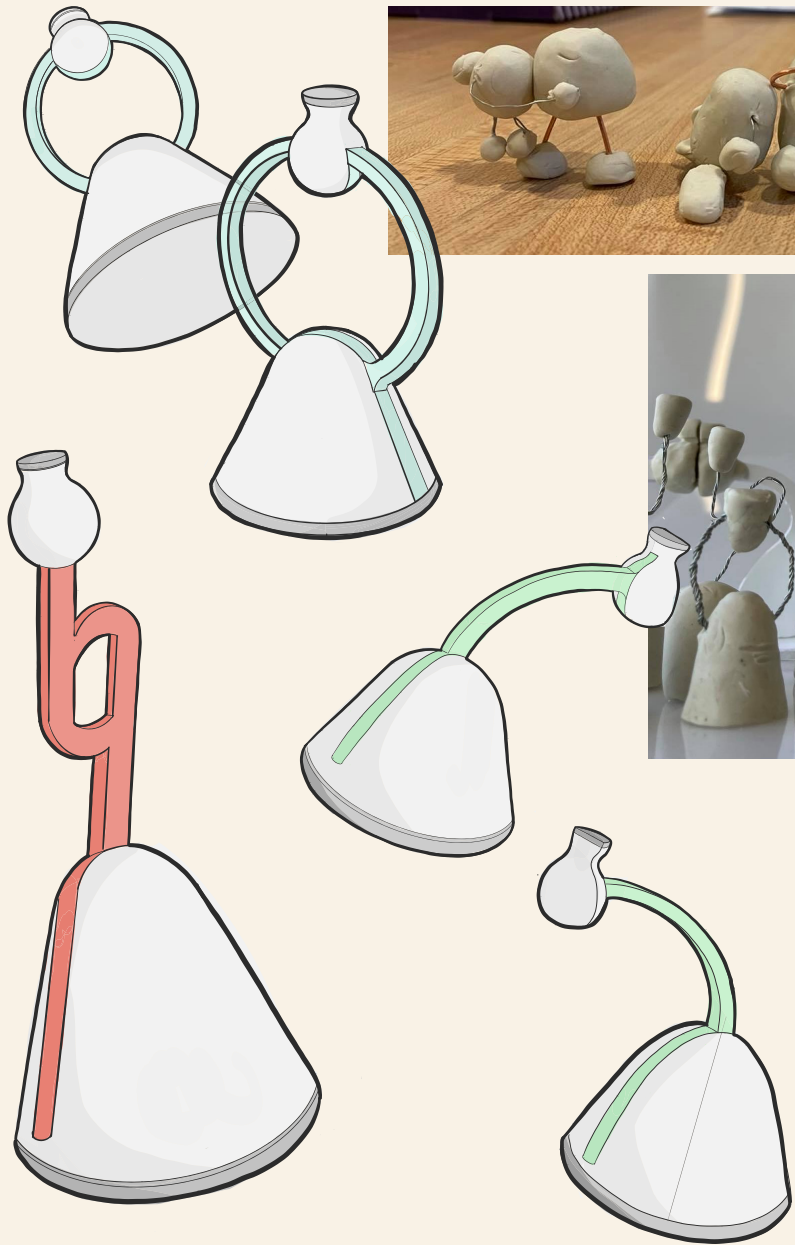


BODIES

HEADS

TOGETHER

MODELING

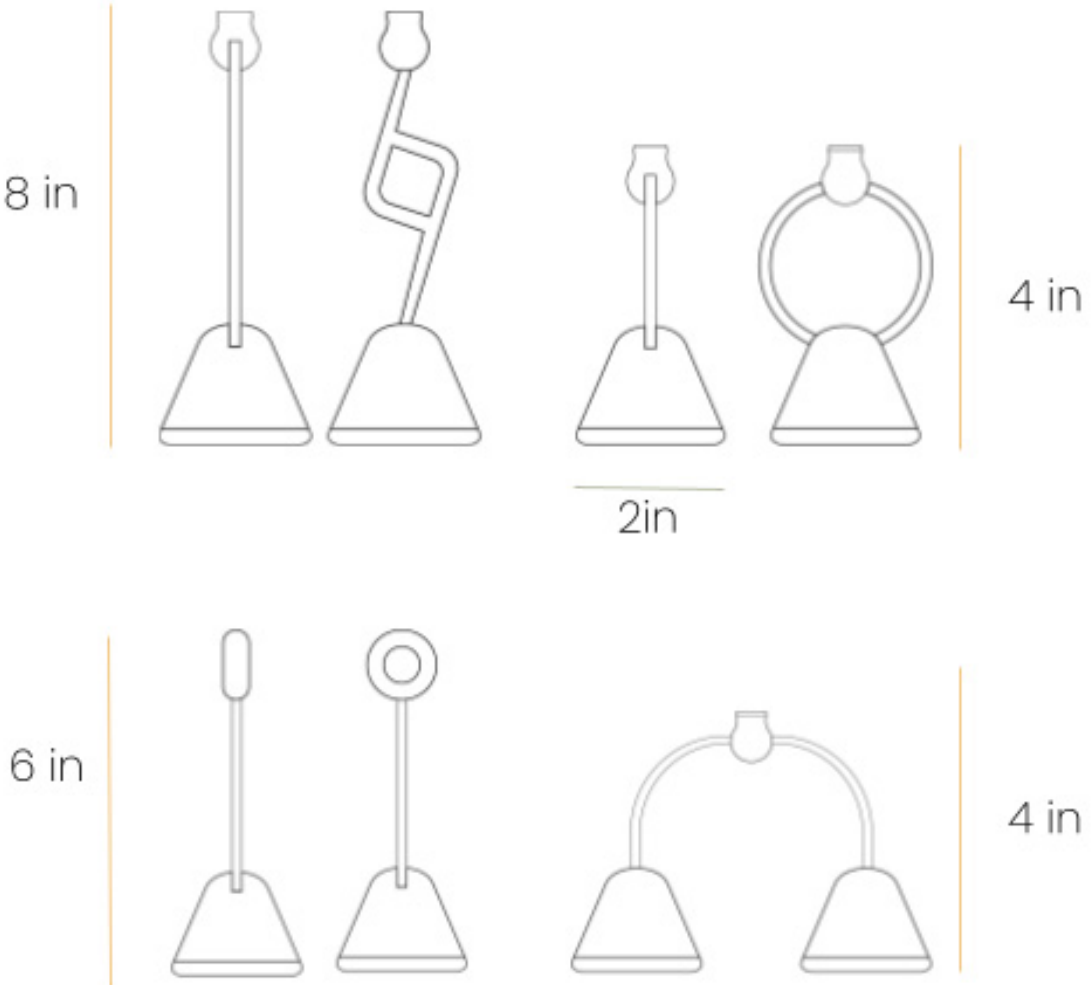


Modeling helped bring the forms to life, learning and altering the interactions between the pieces throughout testing the variety of iterations.

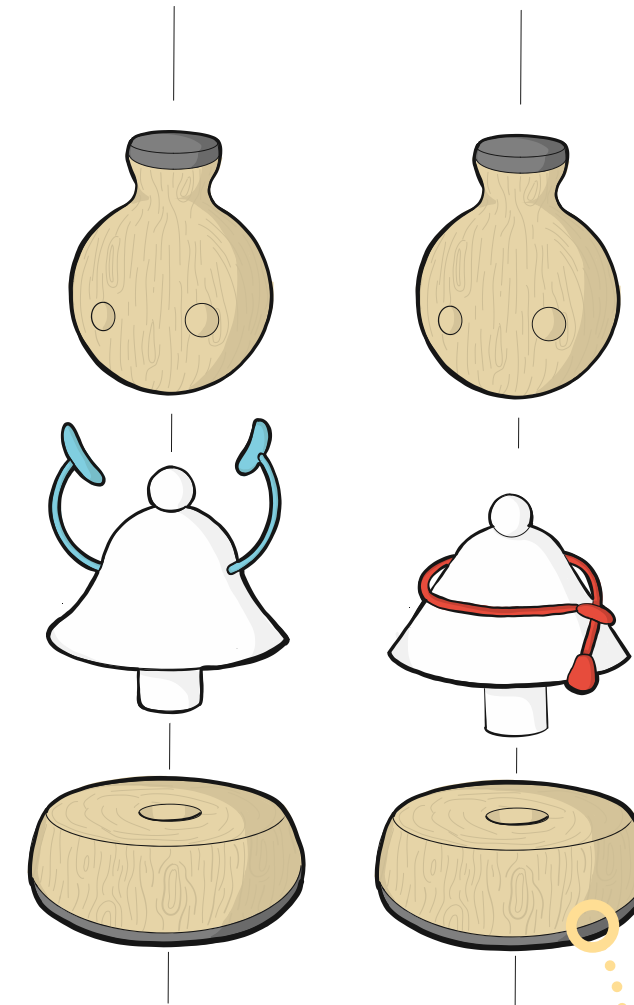


FULL SCALE

Through modeling, the scale of each of the pieces was determined based on the motor skills of the age of the users and wanting a balance between level of difficulty for building and wanting the toy to take the space of the whole table.



How can I make
each of the
characters unique?

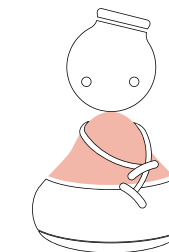


different bases have different
levels of intensity for vibrations
with no indication to add to
suspense of building.

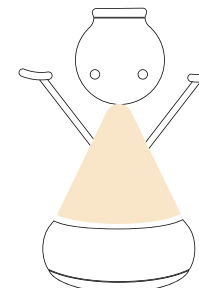
short body
straight sides



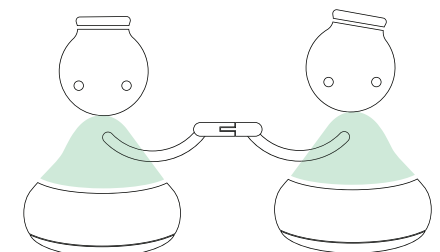
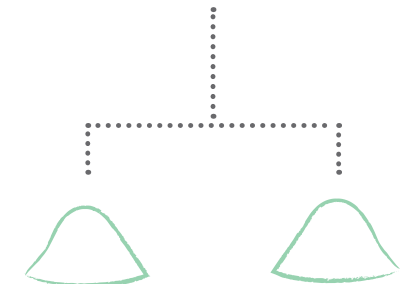
short body
curved sides



long body
straight sides



short body
straight side &
curved side



MODULARITY & BODIES

Each character consists of three body parts
(Dee only has two) - the head, body, and
bottom. Each body has different forms to help
give the characters their own distinctions.

Prototyping

Using 3D printers, I created a set of prototypes to understand the connection points and how the characters interact with one another.



heads need more support to be able to build complex structure

satisfaction gained from building the characters themselves

PLAY TESTING



do they play with them the way I think they would?

Testing with two 8 year olds, I wanted to see how they initially interact with the characters and how they naturally decided to play with it. It was great to see how they started to create personalities for the prototypes, validating that they are able to connect and resonate with them. However, they didn't build with them like I initially perceived they would do. Therefore, I needed to create more challenging prompts that would encourage them to build different structures.

GAME ANALYSIS

To improve the overall experience and receiving feedback, I decided to incorporate more game attributes based on a game analysis with users reflecting on their favorite games growing up.

sound as a result of an action
music after beating game

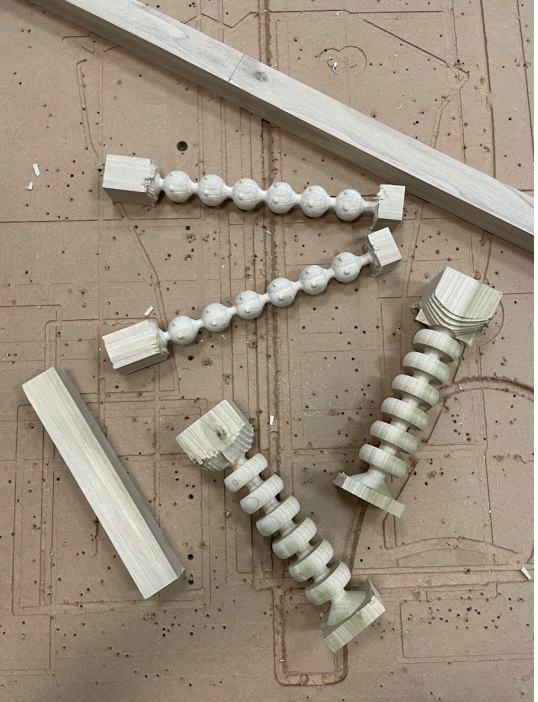
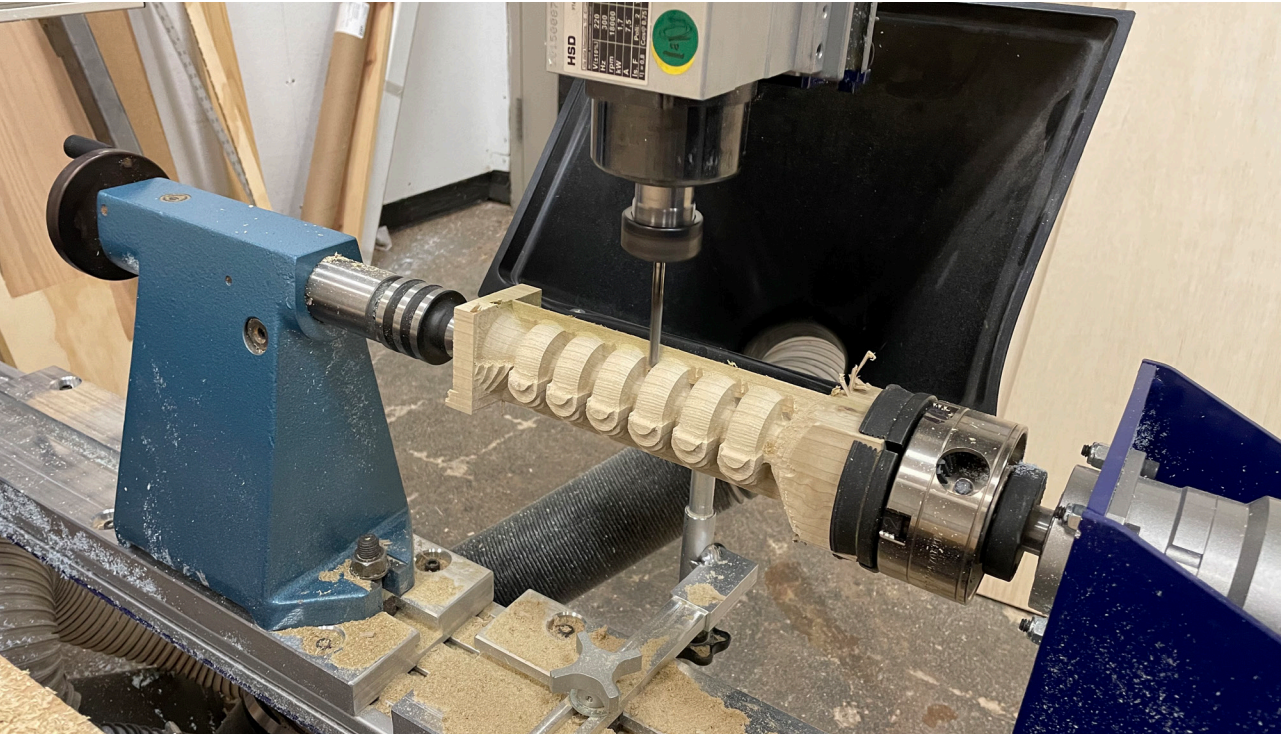


sound as a consequence is annoying
lights as a form of feedback

sound of timer
suspense of known outcome
pressure from time

CREATING FINAL MODELS

Using a CNC indexer and learning how to cast silicone, I worked to create high fidelity communication models to better convey form and materiality of the building characters.





selanions

your self-awareness companions

WHAT IS SELANIONS?

Selanions is an educational toy designed to combat the emotional experiences children feel during unexpected moments of failure. They are a set of reactive, emotional building characters that explore the self-conscious emotions through the blocks' sensory responses of the user's failures.

Pick a challenge, set the clock, and start constructing! As you build, Barry, Stanley, Emily, Pat, and Dee will come to life. If you can beat the clock, the Selanions will play you a song! But watch out! If time runs out or at any moment when building, any of the characters can have a fit and sabotage your tower!



THE CHARACTERS & INSTRUCTIONS

There are four characters - Barry, Stanley, Emily, Pat, and Dee. In addition to the game components, there is an instruction manual with character cards to help kids understand what the characters represent and what the emotions feel like through scenarios at the bottom of the cards.

INSTRUCTIONS

Meet Barry, Stanley, Emily, Pat, and Dee. They're the Selanions. Selanions are a set of emotional building blocks. Each character represents a different self-conscious emotion. These are emotions that are harder to see and handle.

How do you play? Pick a challenge card, put it in the console, set the timer and race to build! As you build, the Selanions will come to life. If you successfully build the structure before time runs out, they will sing you a song. But watch out! If you don't make it in time or at any moment one of them could have a fit and cause your structure to fall!

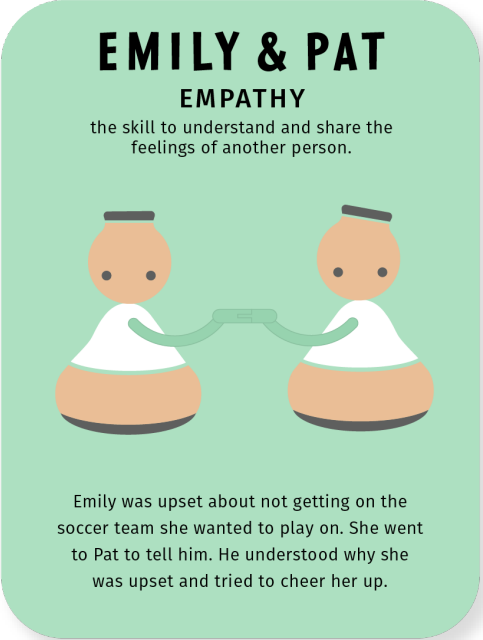
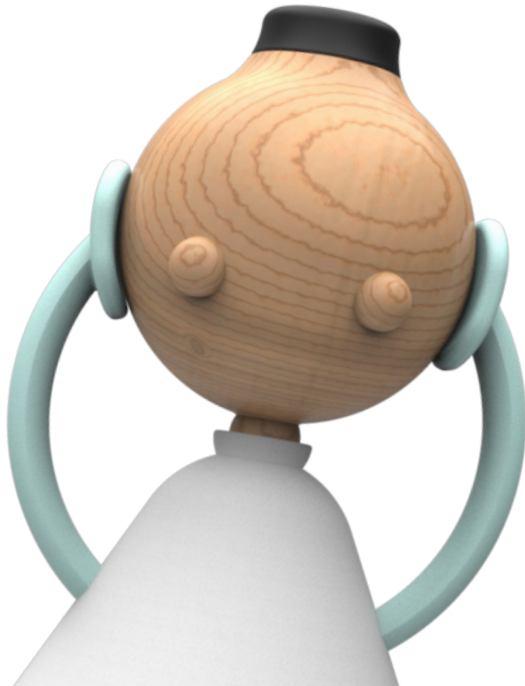
Good luck and have fun!

CHALLENGE CARD LEVELS

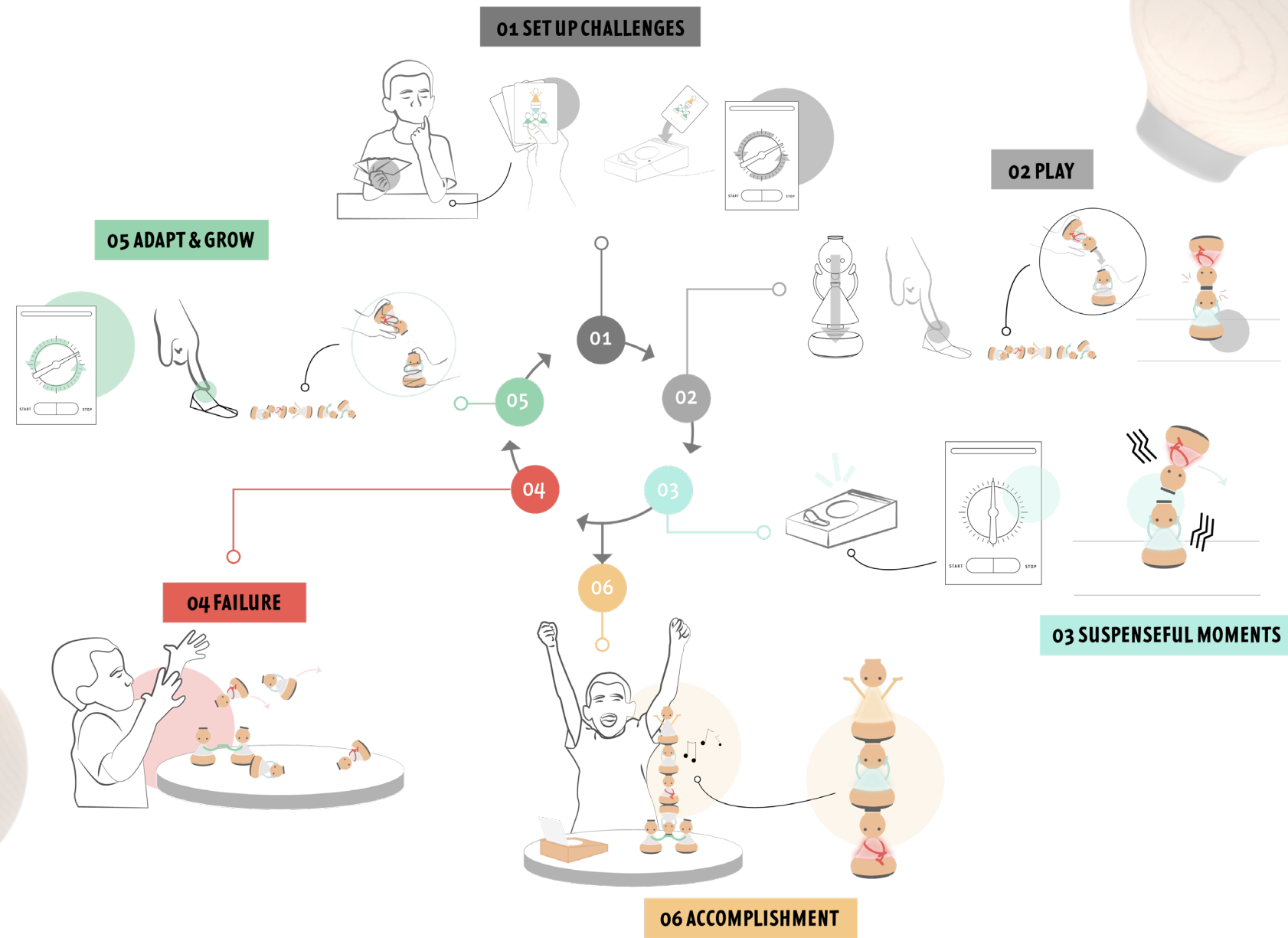
- ★ ☆ ☆ BEGINNER
- ★ ★ ☆ MEDIUM
- ★ ★ ★ EXPERT

TYPES OF CHALLENGES

1. With the cards that show a picture of a tower, try to replicate it!
2. With the cards that show pieces and numbers, use those certain number of peices to make a tower of your own!



USER JOURNEY



STEP 01 SET UP

players choose or pick randomly a challenge card with a structure on it to build. They then place it in the main console and select the time difficulty. players only have a certain amount of time before the characters act out.

ATTRIBUTES:
Time pressure
Expected consequence of the structure falling

STEP 04 FAILURE

if the player can't build the structure and stop the clock on time, all of the characters start shaking and fail out of their postions, ruining the tower. Some characters might vibrate randomly and make the tower fall unexpectedly! As they fall they lose their color/no longer light up and make some unpleasant nosies.

ATTRIBUTES:
Vibration
Unpleasant beeping

STEP 02 PLAY

after picking out a card, the player builds the characters needed for the structure. when they are ready, they start the timer and start building. as they build, the charaters click together by the magnets, they light up their respective colors, and make a please noise when they connect.

ATTRIBUTES:
Lights
Plesant noises and clicks

STEP 05 ADAPT & REBUILD

the player can then try again and again, repeating the challenge or other ones.

ATTRIBUTES:
Time

STEP 03 SUSPENSEFUL MOMENTS

a character or two might softly shake during the tower causing suspense for the user in whether or not the tower will fall during their building.

ATTRIBUTES:
Vibration

STEP 06 ACCOMPLISHMENT

as the player gets better at the game, put the final pride character on top, and successfully build a structure, they stop the timer and the whole tower will light up, and play bunch of fun sounds.

ATTRIBUTES:
Pleasant sounds / music
Lights

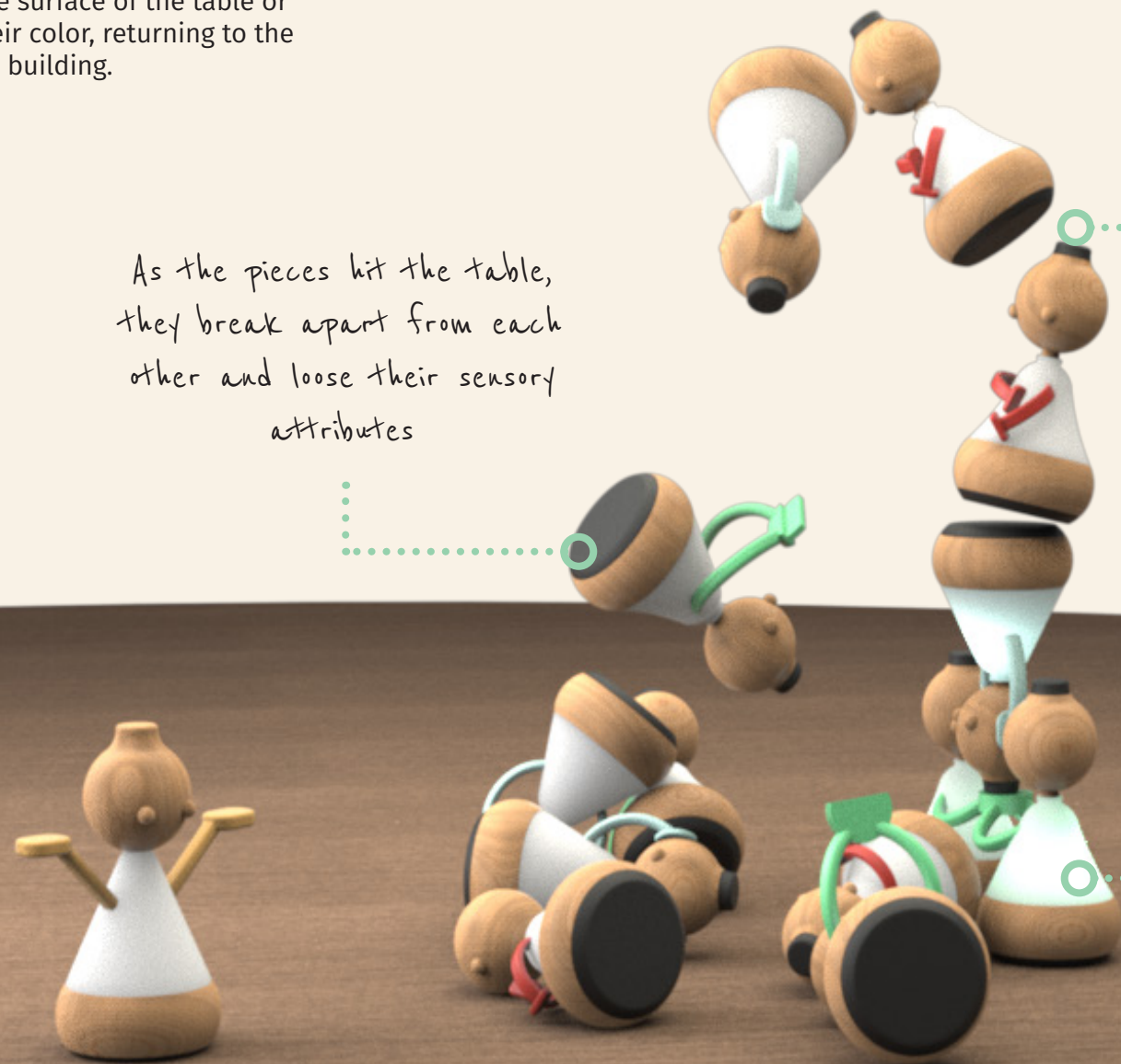
FEATURES

When connected, the characters will light up their respective colors and make a sound upon clicking together. If a character has a fit, they will vibrate, causing them to fall and break apart from one another. As they hit the surface of the table or floor, they will lose their color, returning to the state they were before building.

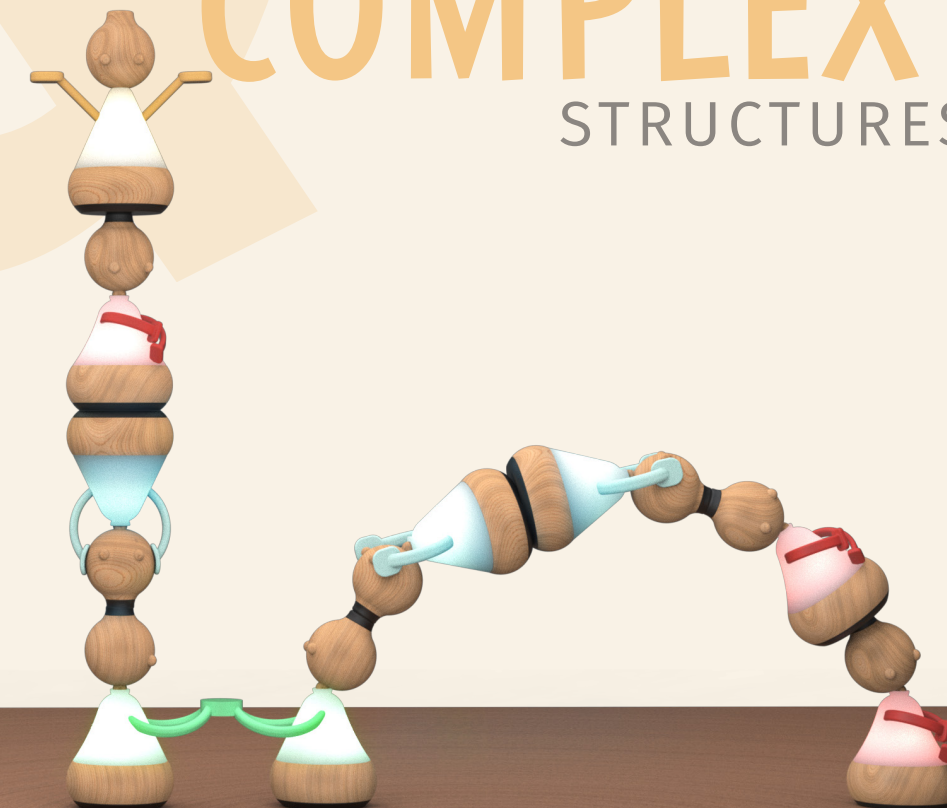
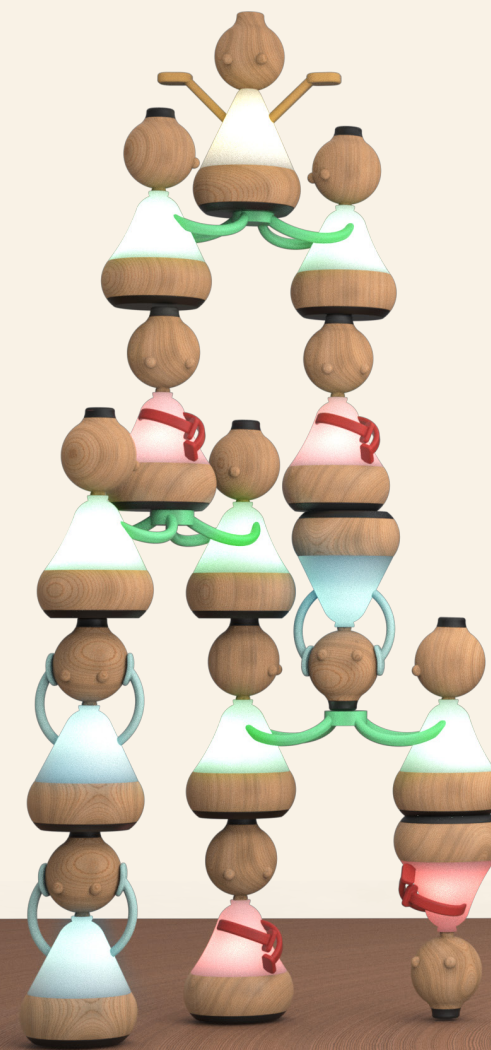
As the pieces hit the table, they break apart from each other and lose their sensory attributes

The pieces vibrations of the pieces causes the structure to fall

The pieces glow their respective colors when they connect with



SIMPLE STRUCTURES.



COMPLEX STRUCTURES.

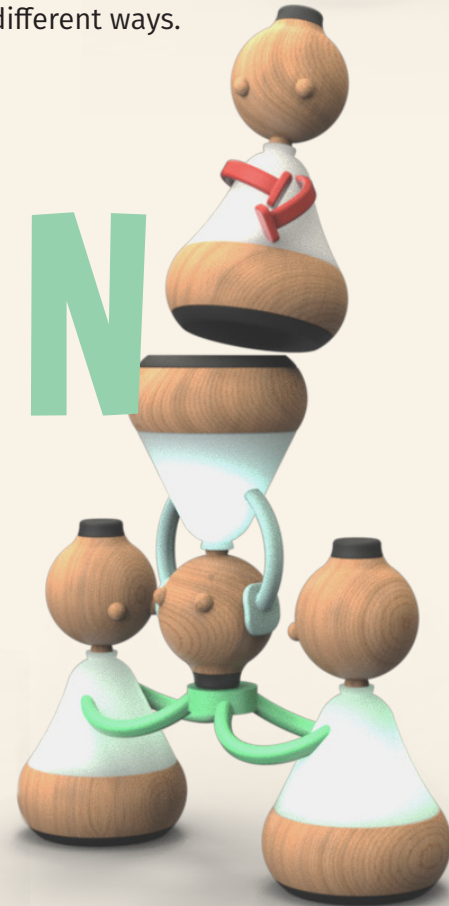
MODULARITY

The pieces are modular and need all of the components together in order for the character to work properly. This brings in the concept of needing the head, body, and soul in order for the individual to be alive. The bottom pieces have different sensors in them, making the characters shake or act in a variety of different ways.



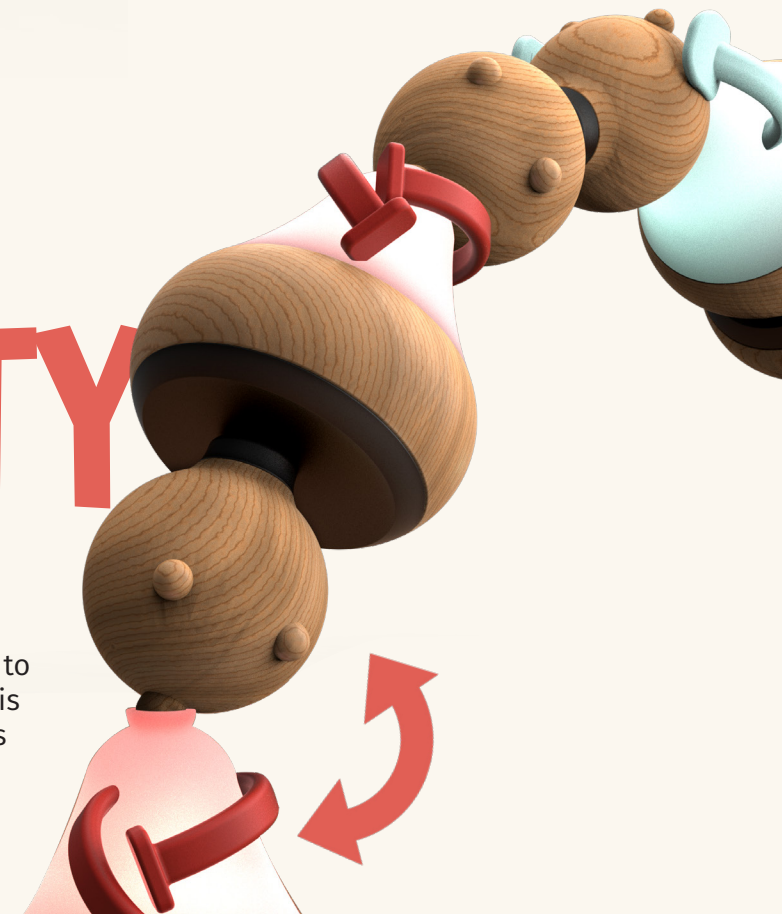
CONNECTION

The characters connect via the magnets on the top of the head and the bottom of the bodies. However, the magnets are not uniform, allowing for a head to be connected to a head, a head to a body, or a body to a body. This allows for more complex and unstable structures. It also creates an unknown component when building under the pressure of time.



COMPLEXITY

The head work on a ball joint with a hidden magnetic connection to the body. This allows for more complex building and for the user to be able to create structures such as arches. This also causes the structures to be less stable and adds to the difficulty of building and the game experience.



CHALLENGES

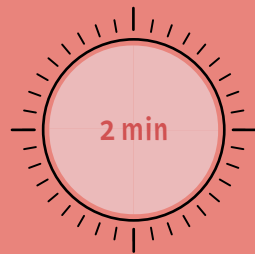
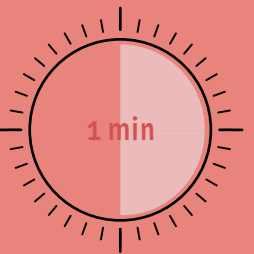
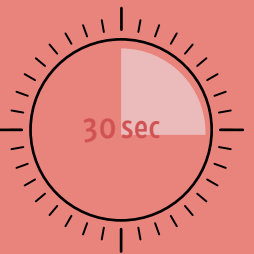


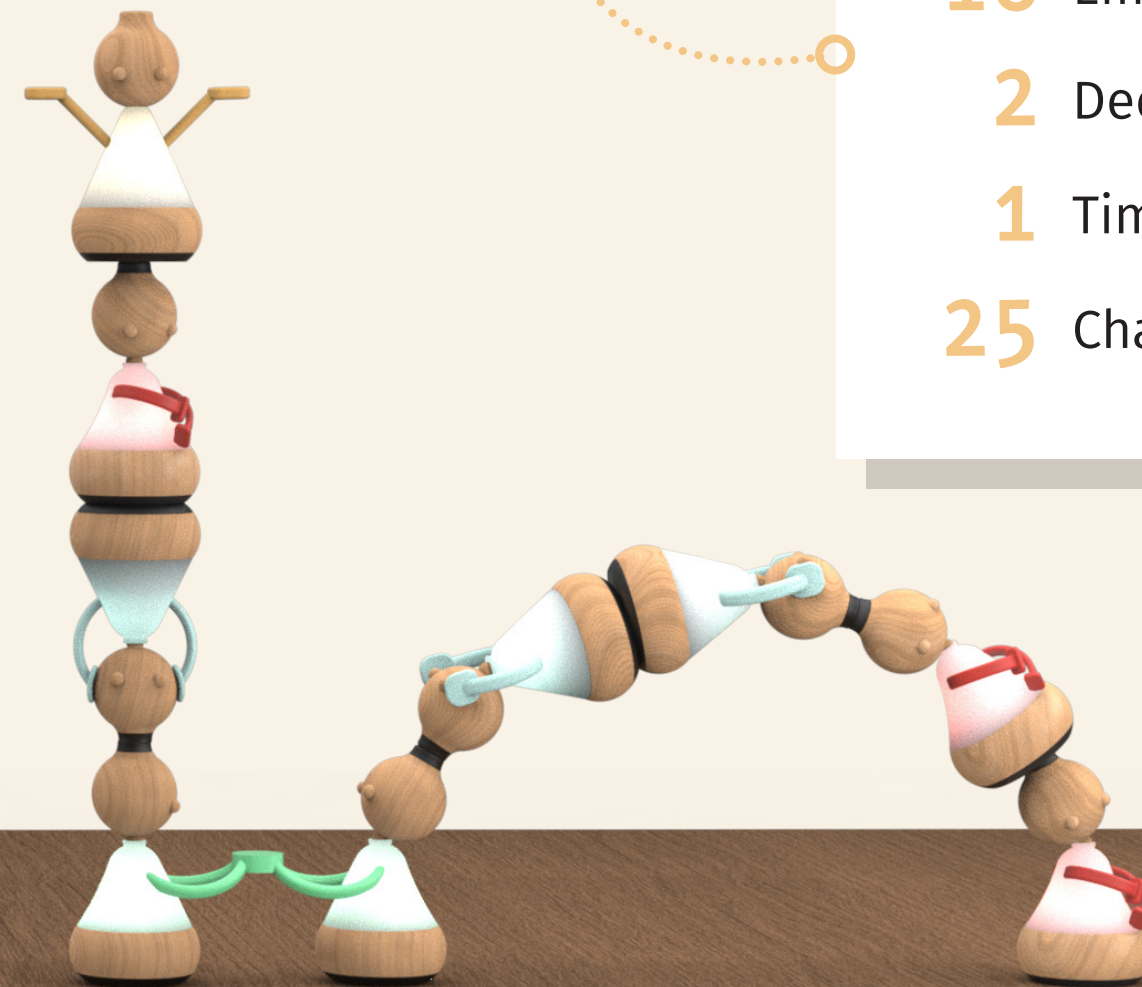
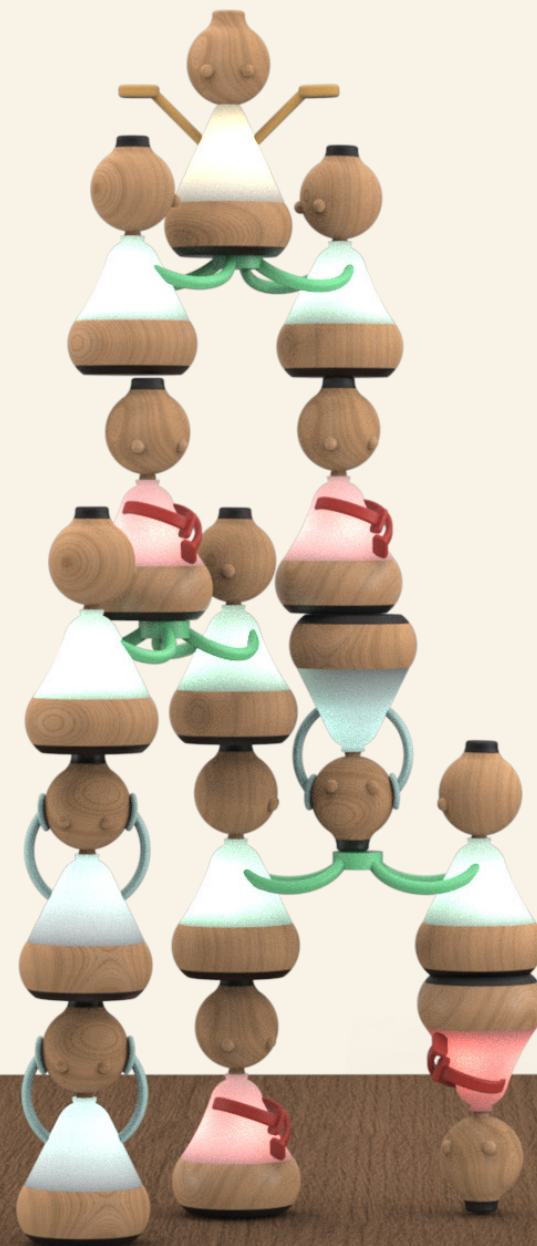
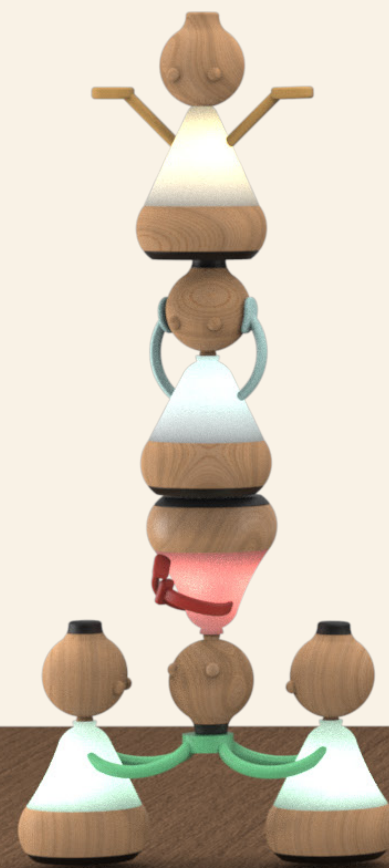
gives game player the number of pieces to build with

gives game player a diagram of a structure they have to build

TIME COMPONENT

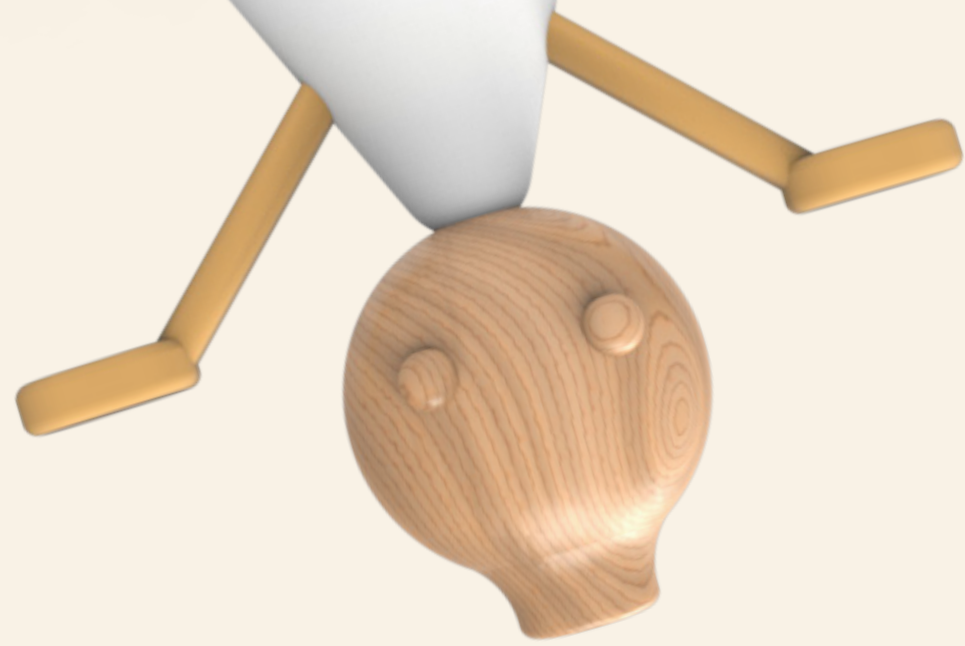
Once the challenge card is picked and placed in the console, the user can set the time they want to try and beat. The maximum of time the user can have is two minutes.





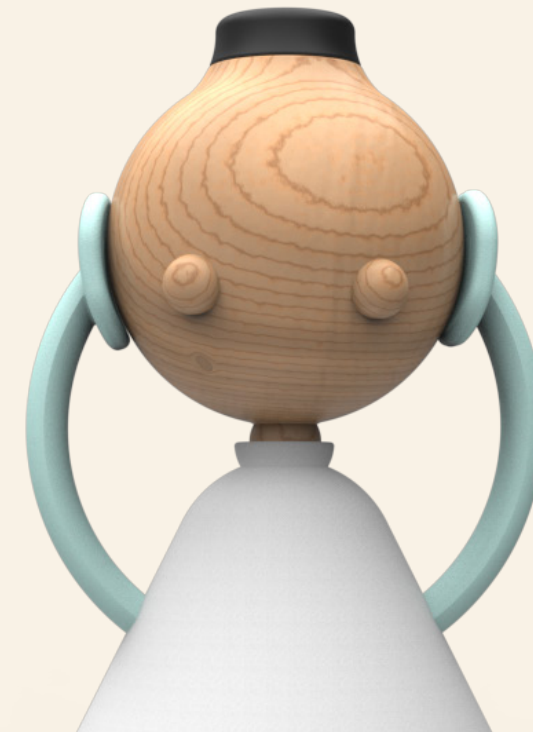
how many come in a set

- 12 Barry
- 12 Stanley
- 16 Emily & Pat
- 2 Dee
- 1 Time console
- 25 Challenge cards

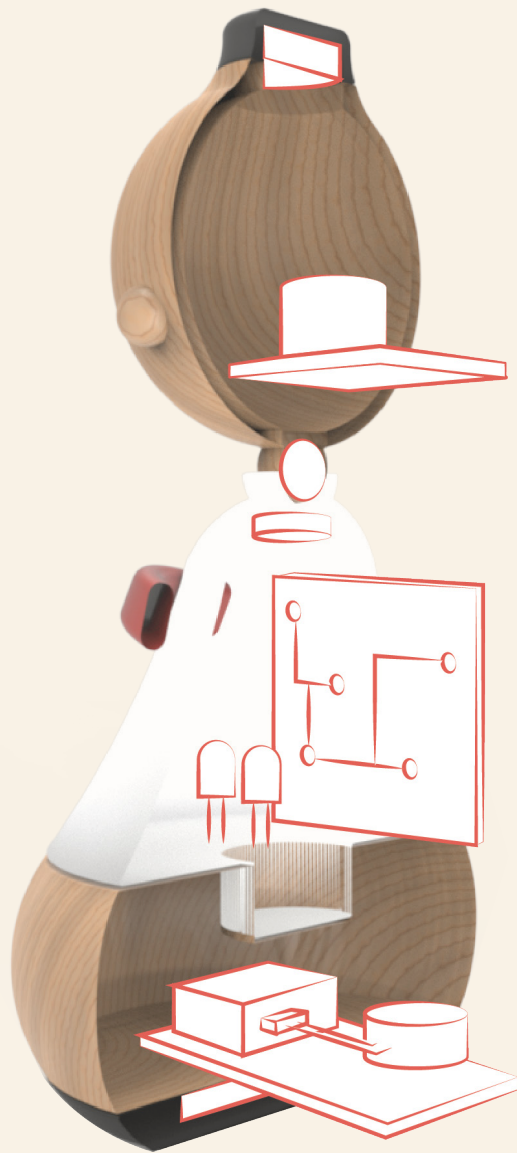


PHYSICAL PROTOTYPES

Collaborating with another product design student with a passion for making, we worked together to create partially working communication models. This final step brought Barry, Stanley, Emily, Pat, and Dee to life!



MATERIALITY



TOP CAP

HEAD

BODY

BOTTOM

BODY CAP

EXTERNAL

INTERNAL

silicone/
natural
rubber cap

magnet

ash wood

magnetic
sensors

PLA housing
with a silicone
or natural
rubber sleeve

LEDs,
speaker,
magnetic sensors,
magnets

ash wood
housing

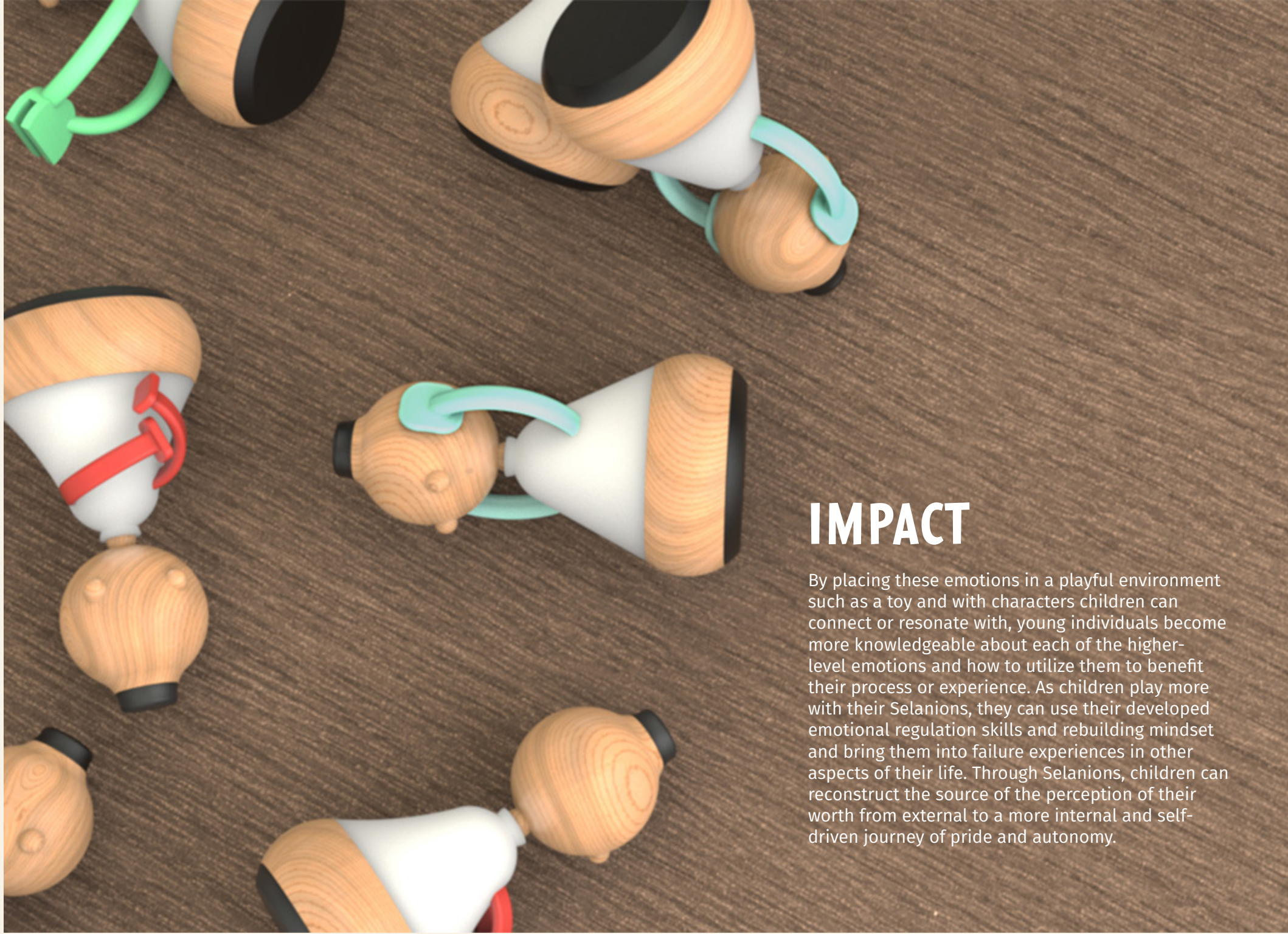
batteries,
circuit board,
vibrating sensor,
magnets

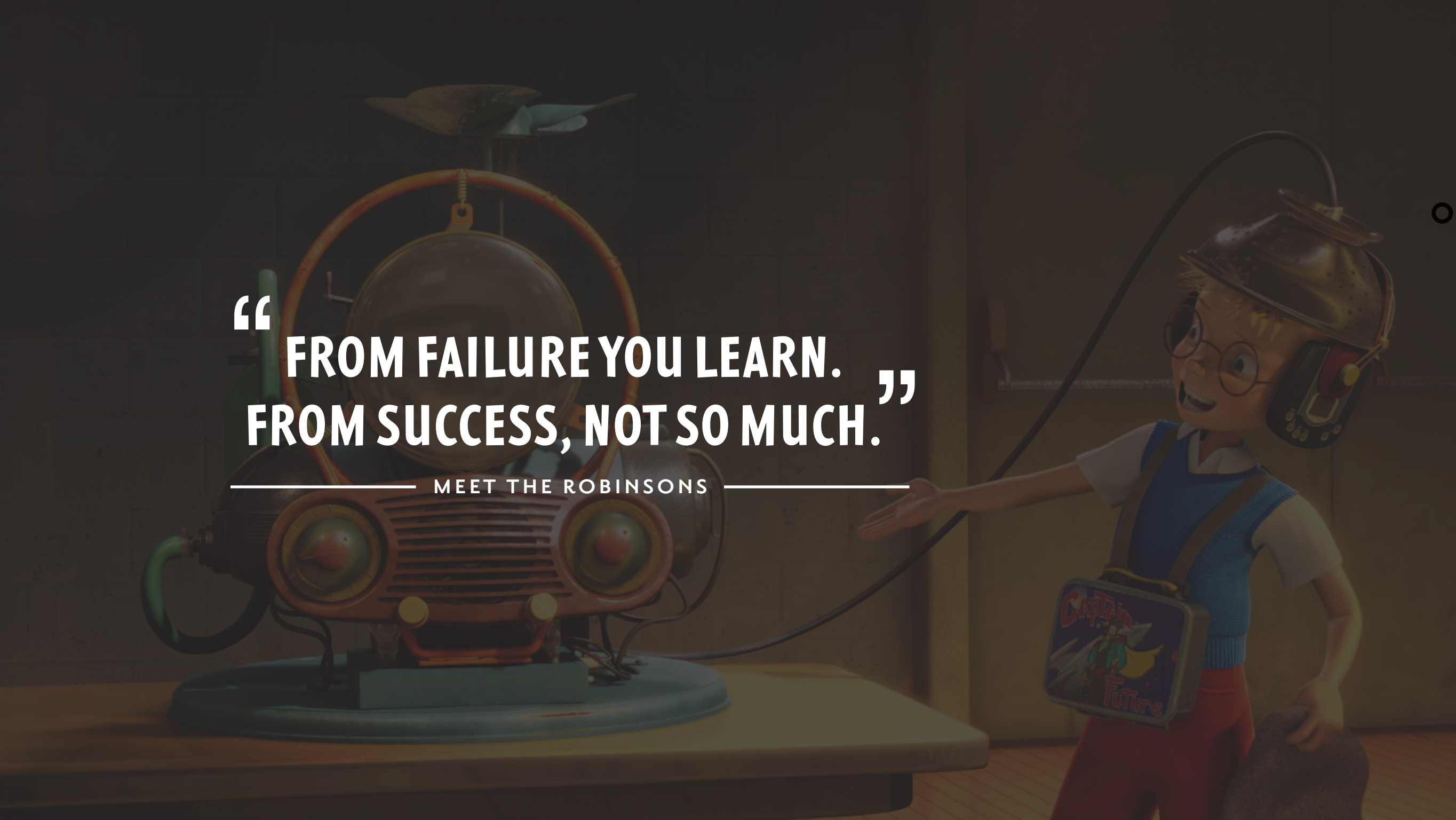
silicone/
natural
rubber cap

magnet

IMPACT

By placing these emotions in a playful environment such as a toy and with characters children can connect or resonate with, young individuals become more knowledgeable about each of the higher-level emotions and how to utilize them to benefit their process or experience. As children play more with their Selanions, they can use their developed emotional regulation skills and rebuilding mindset and bring them into failure experiences in other aspects of their life. Through Selanions, children can reconstruct the source of the perception of their worth from external to a more internal and self-driven journey of pride and autonomy.





“FROM FAILURE YOU LEARN.
FROM SUCCESS, NOT SO MUCH.”

MEET THE ROBINSONS

CLOSING THOUGHTS

With every failure and process like this, the emotional journey is long and difficult. My goal is to continue to create experiences like Selanions to help people further their psychological and emotional development. Selanions embodies the need for emotional regulation through play, reflection, and grit.

Throughout this nine month process I was continuing to try to solve a problem that I, myself struggle with. I had numerous moments of failures whether it was taking an extended amount of time trying to come up with the “perfect” concept or people not understanding the intent of my project. Through it all, there was the constant fear I was failing as a designer and making all of the wrong decisions. I was constantly thinking that the final experience I designed was going to define me as either a good designer, or a flop. However, not only have I created an experience I am proud of, I’ve learned more about myself as a designer and problem solver in my thesis more than any other project that preceded it.

Thank you!



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