



Early College High  
School  
Salem-Keizer School  
District  
High school  
Oregon State

# GAMIFY THE WORLD (GTW)



## PROBLEM STATEMENT:

- Client invests large amount of time forming connections with special-needs children
- Shortening this time allows for further educational room for growth
- We must create a product to foster connection building

## OBJECTIVES:

### Primary

- Build a device that encourages student communication through collaborative gameplay

### Secondary

- Gameplay should be educational and teach students

## USER REQUIREMENTS:

### Explicit User Requirements

- Keep stress-free by avoiding overstimulation for children with Autism Spectrum Disorder
  - Kid friendly (easy to understand, no sharp corners)

- Teaches collaboration and teamwork

### Implicit Requirements

- Device must be durable
- Device must be tactile



"My Goal...I want  
[my kids] to feel  
loved, and know  
that they're loved"

## TEAM

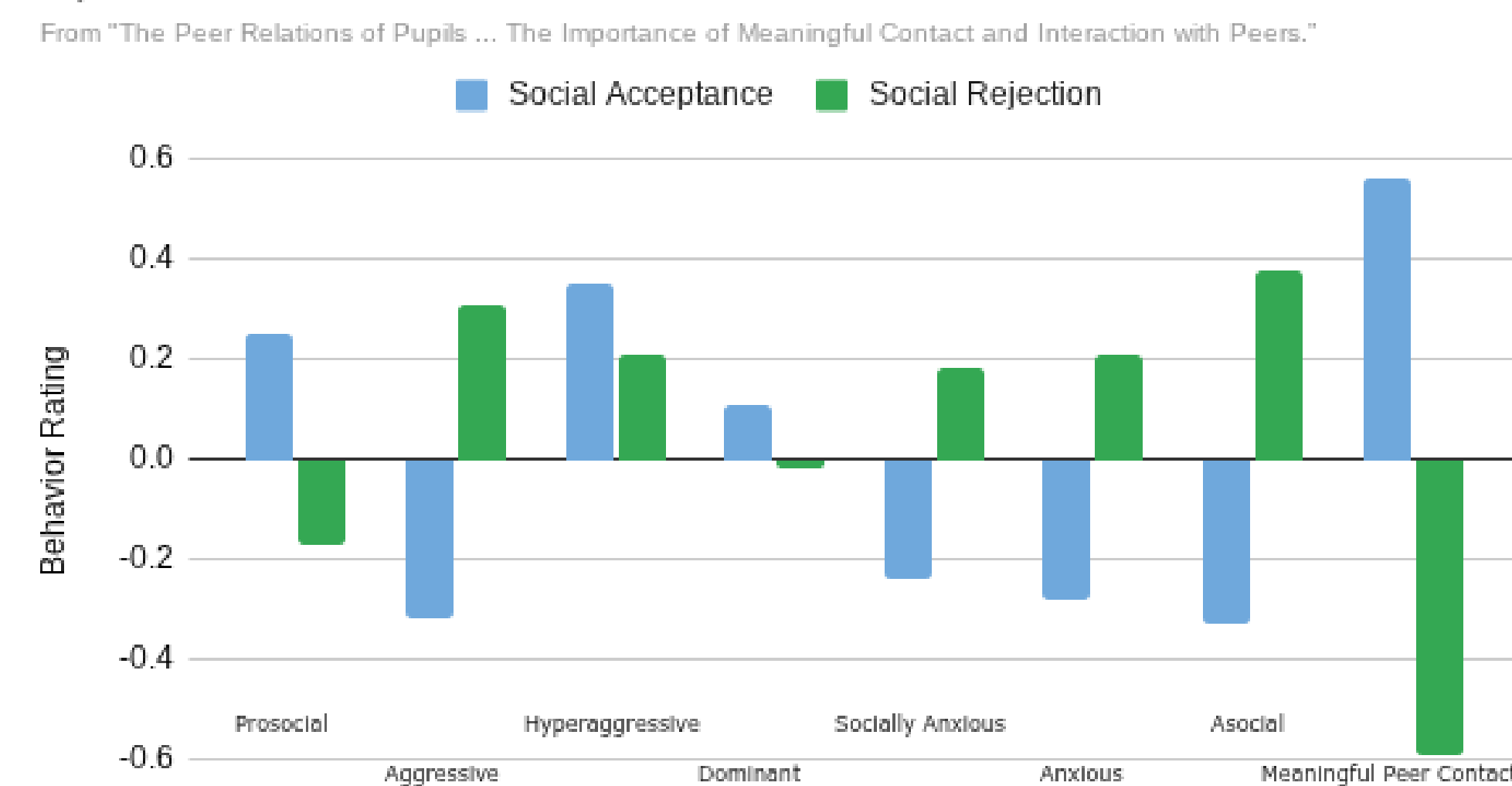
Andrew Curtis, Senior  
Mia Curtis, Senior  
Melody Ferch, Senior  
J. Becket Lush, Senior

### Current Prototype



## FIGURE 1

Correlation Between Social Dynamics and Performance in Special Education

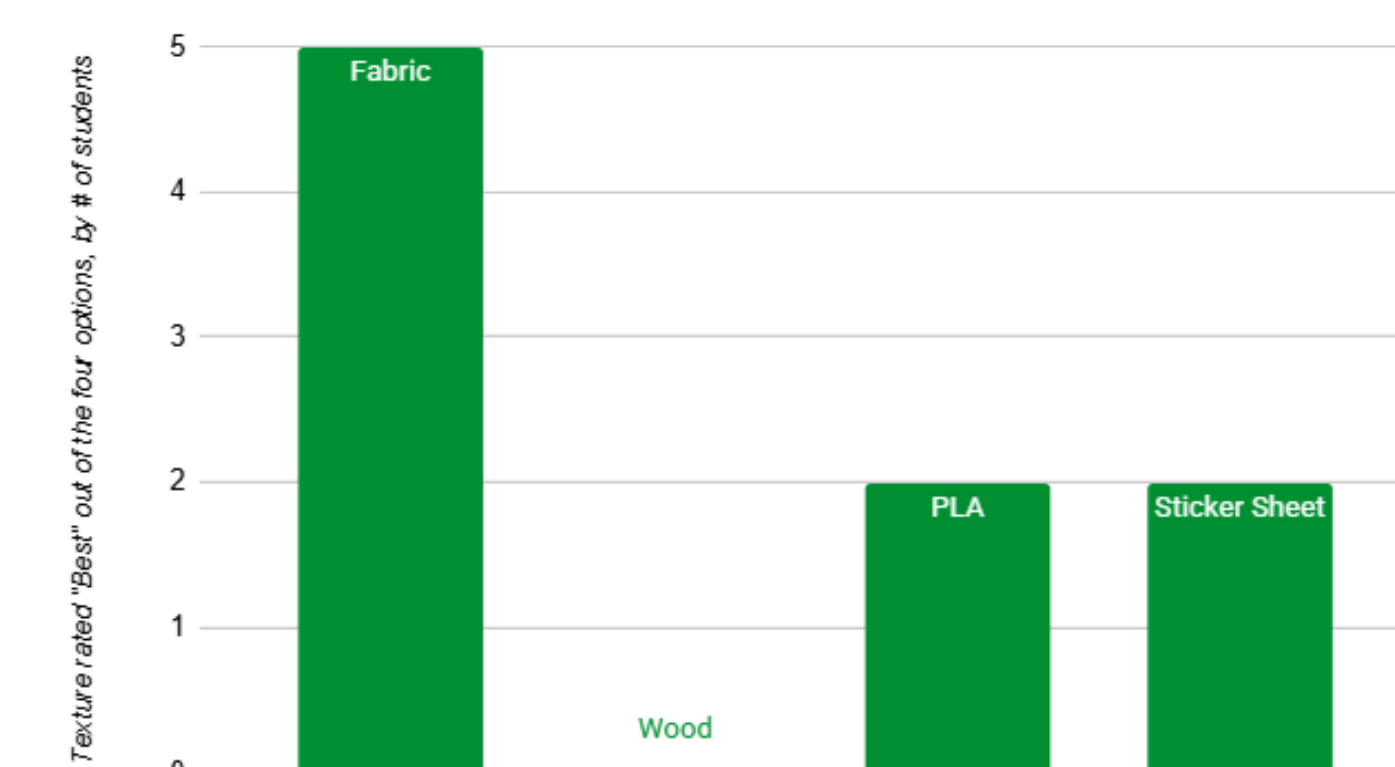


## ADVISORS

Devon Reseburg  
Jo'lynn Espinosa

## FIGURE 2

Special Education K-2 Texture Ranking Of Various Materials



## THE STATS:

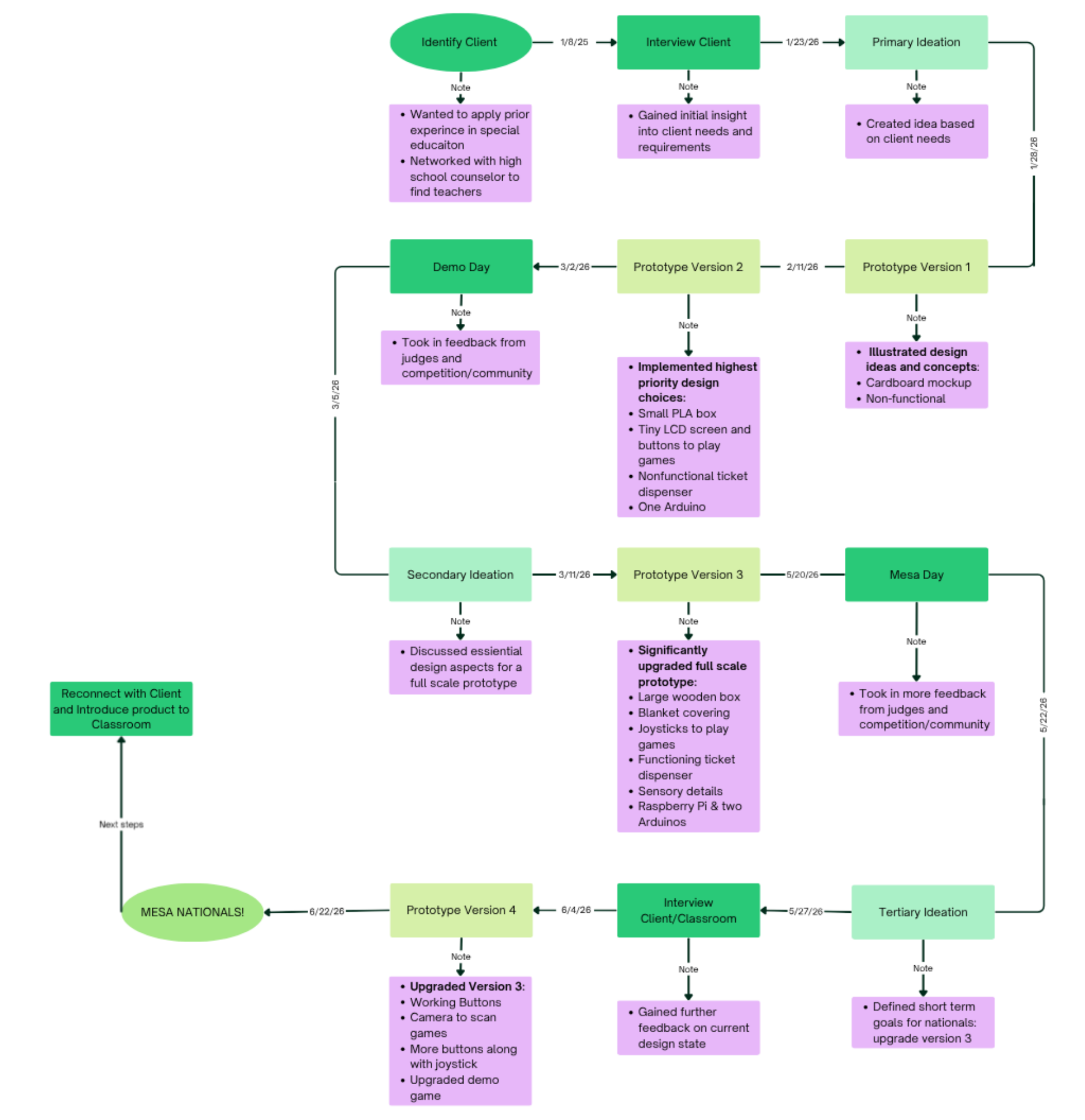
### FIGURE 1:

- Research designed to prove the potential efficacy of a device that supports interpersonal connection
- Research conducted at our client's elementary school
- Purpose was to determine most sensory-friendly textures for neurodivergent students

## TESTING:

- Tested materials of differing textures and fidgets with special needs children
- Trial and error to get electronics configured
- Reached out to client to get feedback
- Process of trial and error to get peices of hardware working together

## DESIGN PROCESS:



## RESULTS:

- Console is built for collaboration between two students
- Provides educational benefit while also teaching students how to work together
- By developing these skills earlier, students are given a head start

## CONCLUSIONS:

- Maintains understimulating nature
- Teaches collaboration and teamwork
- Moderitly kid freindly: requires padding around corners, higher qualtiy construction and materials
- Device is tactile and texturally pleasing

## Citations

Cavaille, Liz. Personal Interview. 23 January 2026.

Pinto, Cynthia, et al. "The Peer Relations of Pupils with Special Educational Needs in Mainstream Primary Schools: The Importance of Meaningful Contact and Interaction with Peers." British Journal of Educational Psychology, vol. 89, no. 4, Dec. 2019, pp. 818–37. EBSCOhost, <https://doi-org.chemeketa.idm.oclc.org/10.1111/bjep.12262>.

González Sánchez, J., Cabrera, M., Gutiérrez, F., Zea, N.P., Paderewski, P. (2009). Design of Videogames in Special Education. In: Macías, J., Granollers Saltiveri, A., Latorre, P. (eds) New Trends on Human–Computer Interaction. Springer, London. [https://doi.org/10.1007/978-1-84882-352-5\\_5](https://doi.org/10.1007/978-1-84882-352-5_5)