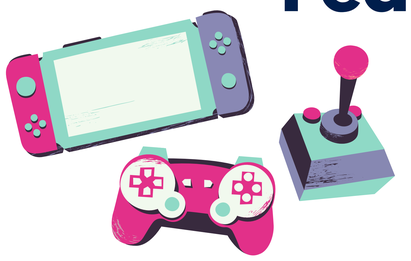
Let Us Play!: An Exploration of Desired Accessibility Features Supporting Students with Disabilities for Digital Serious Games



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Introduction

- Serious games often fail to consider accessibility.[1,3,4]
- People with disabilities are rarely consulted in the development of serious games.[2,6]

Accessibility: the ability for **all people** to **comprehend, use, and work** with surroundings, products, and services.[6]

Serious Games: games developed with their primary **purpose being beyond entertainment** or leisure.[4,5]

Purpose of Study

- Understand perspectives of post-secondary students with disabilities
- Inform accessibility approaches of digital learning games

RQ: " What accessibility features do students with disabilities desire when playing and learning from digital serious games?"

Methods: Survey Study

VIDEO & SERIOUS GAMES

Perception, Knowledge, & Frequency of Playing

DIGITAL ACCESSIBILITY

Desired Features & Perspectives for Accessibility

DEMOGRAPHICS

General Demographics & Specific Nature of Disability

Methods: Focus Group Study

Recruitment (N=16)

Pre-Screening Survey

Focus Group

Wrap-Up Survey

Raw Qualitative Data

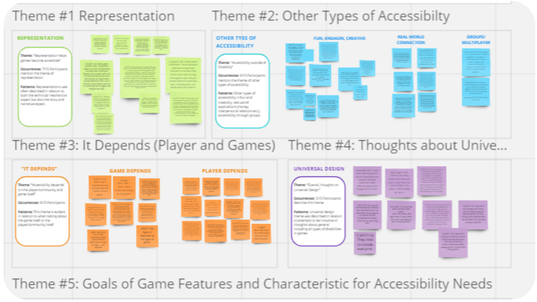
Generating Codes

Inductive Coding Approach

Identify Patterns & Themes

Thematic Analysis

Figure 1. Thematic Analysis Process



Results & Analysis

The data from the survey and focus group aligned and highlighted that students want accessible serious games to have:

- **Disability representation** (in the characters, artwork, creative storylines, and technical features)
- **Disability voices throughout development process**
- **Effortful applications** of universal design principles (game designs for all, inclusion of diverse accessibility options)
- Features that **aid in their understanding** (clear simple language, tutorials, dialogue logs)
- Features which provide **players agency and control** (ability to pause and stop, keyboard changes, difficulty options)
- Features that allow **relearning and repetition** (replay value, hints and in-game messages)

Discussion

Wide range of specific game features and characteristics towards accessibility are desired

Accessibility can come from many game characteristics and not just mechanical features of a game. It all depends!

Limitations: No confirmation of disability, limited pool of students

Future Directions: specific game genres, specific disability groups, wider recruitment scope

Implications

Implications towards development practices and addressing gaps in the literature

Intersectional Lived Experiences

Universal Approach to Accessibility

Feasibility of Inclusion

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