

# Mobile Games for the Visually Impaired

By Sebastian Fugmann



**01**

## **Introduction**

Objectives,  
Research Question,  
Hypothesis

## **Results**

Data Analysis,  
Representations,  
Publishing

**03**

**02**

## **Methodology**

Guideline Analysis,  
App Development,  
User Testing

## **Conclusions**

Tendencies,  
Representations,  
Publishing

**04**

# Introduction

# Objectives



Determine if increasing the activation of the human senses in mobile games can enhance the experience for people with vision impairment.

Develop a small mobile game that will activate the senses of touch and hearing during the usage of the game.

Conduct user testing of the developed mobile game on a small group of 25 individuals to evaluate the effectiveness of different combinations of senses.

## Research Question

**“To what extent does incorporating multiple senses in mobile game design impact player engagement and enjoyment, and should mobile game designers focus more on multisensory experiences to enhance player experience, especially for people suffering from vision impairments?”**



## Hypothesis

**Incorporating multiple sensory modalities in mobile games enhances overall player engagement and enjoyment for people with vision impairment.**

# Methodology

## Guideline Analysis



Guidelines from literature  
Improving features  
Extreme cases  
Few improve extremes

## User Testing



25 participants  
5 groups  
All followed the same steps  
Data issues

## App Development



Unity  
3 levels  
Activates touch and  
hearing

## Changes



Hidden Playermodel  
Movement  
Another screen  
No Preparation

# Conclusions

- Current guidelines improve accessibility
- Does not focus on activating other senses

- Too little data
- Increasing difficulty
- Significant standard tendencies
- Difficult to confirm hypothesis

- 10 times larger dataset
- Acceptable range
- Divide into 30 second groups
- Compare percentage of data within range



# Thanks!

Do you have any questions?

CREDITS: This presentation template was created by **Slidesgo**, including icons by **Flaticon**, and infographics & images by **Freepik**.