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Teaching game accessibility to designers and design students

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Publication Date

2022-09-18

Peer reviewed

Teaching game accessibility to designers and design students

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Abstract

Accessible games are valued, doable and ultimately, accessible design is *teachable*. While the game community has been increasing its accessibility efforts, it can still feel challenging for design teams to prioritize and design for accessibility, particularly on games for learning. Some guidelines can be overwhelming and intimidating and may present contradictions when addressing different players' needs. Learners need an opportunity to think through accessibility needs on a spectrum, consider categories (such as visual, hearing, motor and cognitive), and review designs in ways that are meaningful and doable. Designers and design students can learn accessibility design through a collaborative and participatory process. This established accessibility framework has been designed to help a facilitator guide participants through best practices on accessibility and apply it to the design process of transformational games. This collaborative learning leads to shared reflection on how to best teach accessibility and can be adjusted for use in formal classes or informal professional settings tailored based on the participants' needs.

Teaching game accessibility

This approach to teaching accessibility encompasses three activities in a collaborative and participatory approach, which can take approximately one hour.

- 1. Ice breaking by reviewing a game (15 min):** Arrange participants in small groups to evaluate a game. Ask participants to choose any game and select two or three accessibility features that they think are good, or things that are not accessible. Discuss their findings as a large group.
- 2. Accessibility framework (15 min):** Introduce the framework for discussing accessibility in games (Figure 1, Cezarotto and Chamberlin, 2021). The framework connects the game interaction cycle (game provides information, players determine actions, player takes action) with the four main areas of users' needs (visual, hearing, motor, cognitive). This connection allows designers to discuss and identify possible accessibility barriers in existing or in developing games.
- 3. Regroup to discuss how to teach this (15 min):** Arrange participants in the same small groups to think about how they can teach accessibility to design students. Give each group paper and markers to produce a GRS (Graphic Representation for Synthesis - Bueno and Padovani, 2016). Ask participants to use text, diagrams and graphics to express their ideas and better articulate their group thoughts to be shared with the larger group later.
- 4. Debriefing discussion (15 min):** Each group can present their representation to the larger group. In a collaborative process, the facilitator guides participants to outline best practices on how to teach accessibility for researchers. Use a collaborative note taking space (such as Google doc, Padlet) for the entire group to share their collaborative takeaways.

How participants will be transformed

Accessibility is complex and requires a constant effort to execute and learn. By asking participants to think about ways to teach accessibility, they gain a practical way to articulate strategies and reiterate the knowledge they already know, with others' perspectives and experiences. After each session, participants will have a clearer understanding of how to teach accessibility to others, considering a wide range of user needs. Attendees will be able to use an established research-based framework to discuss accessibility, identify accessibility issues in games and engage in a co-design process on how to teach that to others in a formal or informal setting.

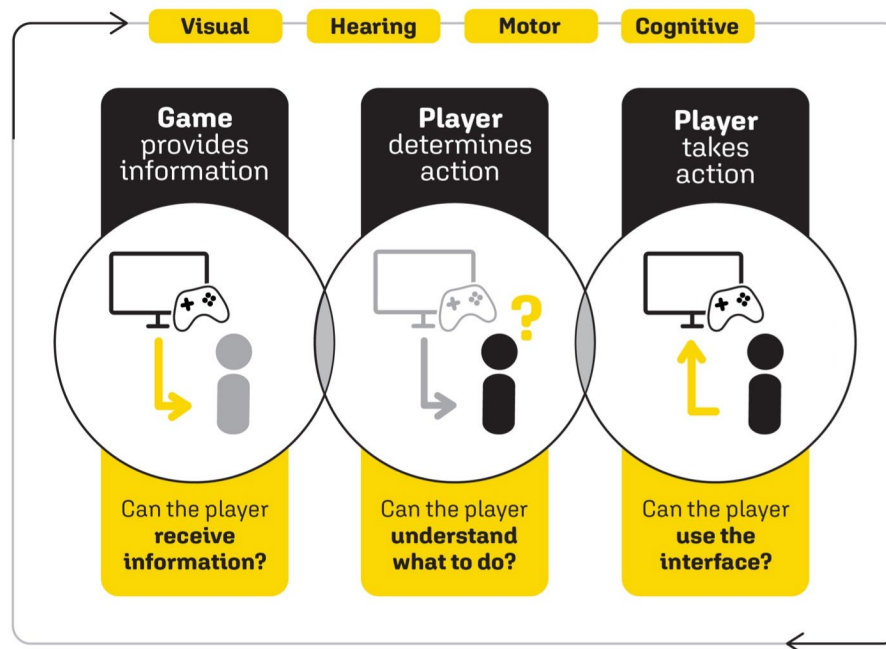


Figure 1

Framework to discuss accessibility in games. Source: adapted from Cezarotto and Chamberlin (2021).

Acknowledgement

We wish to thank the developers in the Learning Games Lab at New Mexico State University. The team's constant efforts to improve accessibility in their games has enabled this lesson: We recognize the contributions of everyone on our team in making games better and helping us articulate these processes for others.

References

- Cezarotto, M. A., & Chamberlin, B. (2021). Towards accessibility in educational games: a framework for the design team. *InfoDesign - Revista Brasileira De Design Da Informação*, 18(2). Doi: <https://doi.org/10.51358/id.v18i2.931>.
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