

Games as therapy for people with language loss

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In a year when many of us worked virtually, a small group gathered online with the common goal of making speech and language therapy more accessible—while having some fun along the way. Their project,

called [Aphasia Games for Health](#), focused on producing games that can provide therapeutic benefits for people with aphasia—a language disorder that can affect speaking, comprehension, reading and writing, which is often the result of a head injury or stroke. It was equally important to the group that the games were entertaining, inherently social and easy and affordable to access.

"Games as an avenue for diversion and fun and silliness is well known, but there's a huge, wide world of games in other domains, too—as a way to support rehabilitation or empower agency over your life—and this project is part of that," said Kathryn Hymes, a graduate student in linguistics at Stanford University and half of the indie game design studio Thorny Games, who was a lead member of the Aphasia Games for Health team.

Aphasia Games for Health was founded by academic speech pathologist William Evans from the University of Pittsburgh and includes people with aphasia from the support group Aphasia Recovery Connection, faculty from Carnegie Mellon University, along with Hymes and her Thorny Games partner, Hakan Seyalioğlu. Together they recruited other [game designers](#) to complete their team. Over the course of the year, the group developed three game prototypes, which are now available online: [The Minister's Cat](#), [Audition](#) and [Do You See What I See](#).

"There are not a lot of games specifically for people with aphasia. A lot of people played games before their injury—and I love playing games—but now, after, they don't want to do it because it's so challenging," said Deidra Brown, another member of the Aphasia Games for Health team who is also a member of Aphasia Recovery Connection and has aphasia. "Games can be very helpful with exercising the brain and getting better and recovery."

This project is central to Hymes' master's thesis, advised by Christopher

Potts, professor and chair of linguistics at Stanford in the School of Humanities and Sciences.

"It's a big ambitious project that Kate started on her own while working in the industry, and she is now pursuing it as a research project for her master's," said Potts. "It's a really exciting interdisciplinary project with the potential for a large societal impact."

Community-driven fun

Making these games relied on a co-[design process](#), uniting the experiences of people with aphasia, the expertise of academic speech pathologists and the skills of the game designers. That meant the team needed to create a productive method for working together across different backgrounds in addition to their goal of designing therapeutic games. As part of this process the game designers sat in on group therapy sessions and the aphasia community members learned about best practices for giving feedback about the games.

Hymes and Seyahioğlu facilitated the co-design process, and the final products went through three cycles of online workshops, where the games were presented, playtested and discussed.

"Co-design was such a fundamental part of this effort, in that it wasn't just medical professionals trying to make games for patients in isolation or game designers working on their own," said Hymes. "This kind of strong community collaboration made these games possible."

"Their creativity was in overdrive. It was awesome to see that," said Brown, referring to the game designers. She added that the most difficult part of the process was choosing only three game ideas from the many that the game designers offered.

For every design, there were five guidelines that had to be met:

- They needed to be based on proven therapeutic methods
- There had to be an opportunity for supportive performance feedback during play—a process known to be useful in therapeutic environments
- Each game had to have adaptable levels of challenge to accommodate the variability of aphasia
- The games had to be playable long-term—unlike, for example, a puzzle that is solved once
- They had to fit the needs of a diverse aphasia community by being affordable, playable online and offline and inclusive of players with or without aphasia

The final games were a storytelling game (The Minister's Cat), a memory and improv game (Audition) and a virtual take on 20 questions (Do You See What I See), each led by a different [game](#) designer supported by the co-design team.

Staying connected

While the Aphasia Games for Health team intends for the games to be useful long-term as tools for rehabilitation and recovery, their additional role as tools for social connection should not be overlooked. As a communication disorder, aphasia can be extremely isolating and so games that can be played online or offline and accommodate various forms of language loss—or none at all—can provide an incredible opportunity.

When asked what she most wanted people to understand about aphasia, Brown said, "Aphasia does not affect your intelligence. It may look like it, but it doesn't. We are still alive. We are still present. We are still knowledgeable. So don't ostracize us."

For people without aphasia who play these games with members of the aphasia community, Brown recommends patience, repetition, speaking slowly, focusing on "yes" or "no" questions and being mindful that communication needs and preferences vary from person to person.

The next step for Aphasia Games for Health is for the team to continue testing and refining the prototypes with [aphasia](#) support groups around the country to make sure they are meeting their original goals. In the meantime, however, the [prototypes are available](#) for anyone to download and play for free.

Provided by Stanford University

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