## Jigsawdio: A Memory Puzzle to Help Patients with Alzheimer's Disease

by Elizabeth Ellis

At 89, Hearthstone Health Campus resident Martha J. Osborn has Alzheimer's disease. According to her son Steve Osborn, if she gets up to use the restroom while having a meal, she often won't remember to go back to finish her food.

But with one click of a correctly placed piece into an interactive frame of an acrylic puzzle called Jigsawdio, a snippet of her favorite song-"Downtown" by Petula Clarkcan be heard, and happy memories come back.



Yongseop Kim is managing the demo study for Jigsawdio, an interactive jigsaw puzzle for people with Alzheimer's disease. Photo by Elizabeth Ellis

This Jigsawdio prototype is described as a "multi-sensory personalized reminiscent puzzle activity" for people with Alzheimer's disease and related dementias. It is being demoed by 12 Bloomington residents and their caregivers (including Osborn) in senior living facilities Bell Trace, Hearthstone, and Jill's House. The demo study is being managed by Yongseop Kim, an Indiana University School of Public Health-Bloomington doctoral student and graduate assistant.

Kim says caregivers can choose a 12, 24, or 36-piece puzzle, depending on the recipients' skill level. Photos are uploaded through an app. and caregivers can also record custom

sounds-up to three minutes each-that can be activated when the correct puzzle piece is placed into six locations on the frame.

"We as a family decided on the 12-piece and chose photos that would encompass everyone from immediate family right down to great-children," says Osborn. "In terms of the sounds, I mixed it up a little bit; picking out songs that my mom and my dad liked listening to."

Osborn says they also included some specific messages about the photos, such as names and ages. And if his mother doesn't remember what the puzzle is as it is sitting in the displayable frame in her room, a caregiver or family member can take it down and they can collaborate putting it together all over again.

"I think that this product has a lot of value," says Osborn. "It's great because it challenges her mental thought process and it's a chance for collaboration and stimulation, which is so important."

The project recently received support from the National Institutes of Health, with a budget of nearly a half-million dollars, due to the efforts of Junhyoung Kim, a former assistant professor at the school, and Jigsawdio CEO Amy Young, both of whom Yongseop Kim is working closely with.

Learn more at publichealth.indiana.edu.



Hearthstone Health Campus resident Martha J. Osborn works on a custom Jigsawdio puzzle in her room. Photo by Elizabeth Ellis

