1 Rapid Prototype





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An Iterative Process:

bigger + more interactive + more lights + more light colors + plastic

make translucent (hide systems) + alternative plant + no rolling

Abstract

College is marked by a set of multidimensional changes that can amplify a sense of loneliness. In a survey by Sodexo, over 50% of college students report being affected by isolation. In particular, I address isolating situations confronted by difficult challenges amid heavy workloads. Central problems (difficulty concentrating, anxiety, and loneliness) guide informed design choices. Using UX studies and SUS studies, and role plays, I iterate upon prototypes to advance key outcomes (a working, interactive device, encouragement of positive habits for wellbeing, a familiar integration into the user's lifestyle). Thus, I introduce flo: a plant-like device that uses humidity sensors to pick up deep breathing. Deep breathing is an effective intervention for alleviating stress, with positive benefits for wellbeing. Flo encourages deep breathing by generating pleasing, timer-based feedback that incrementally recenters the focus of users to return to a psychological flow (flo) state of mind. In the future, I aim to maximize the calming effect of the sensory experiences generated by the current prototype. Flo contributes to the design of products that adapt to different lifestyles and spaces to make better situations of isolation.

3 User Experience Study



Current

Prototype

4) System Usability Scale Study

Grove

decrease plant-base ratio + intentional lighting + wooden box + green plant

simplify interaction (misleading plant choice)+ increase air vents

3.75" x 3.75" x 3.75" box occupies little

1. "More Than 50% of Gen Z College Students Report Feeling Lonely According to Sodexo Student Lifestyle Survey." Sodexo, 9 August 2022, https://us.sodexo.com/media/news-releases/gen-z-college-students-Ionely.html. Accessed 1 December 2022.

Stills from Role Play





space + clearly visible air vents hint breathing mechanism + aesthetic minimal design + purposely timed, easy-to-follow feedback promotes refocusing

"It's a cute little thing to have on the desk for stressrelieving. The dancing plant immediately cheers me up."

User Experience Study (2 male, 3 female; aged 18-20; prototype 3)



UX (left): Key findings were that device attractiveness and effectiveness were somewhat ambiguous, but people's first impressions connected the device to calming purposes.

SUS (bottom): Participants found the interactions to be well-designed and easy to interact with, but required some guidance. SUS scores ranged 72.5-100 (x=86.5) and are shown below.

heavy academic workload difficulty concentrating. sees flo. She thinks it looks nice as desk decor.

Anne (student), 19, has a Anne is stressed and finds and often works alone. At A post-it next to flo says, the study lounge, Anne "Take a deep breath." She does, and the light slowly brightens.





Enjoying the calming glow The light turns purple. This

System Usability Scale Study (2 male, 3 female; aged 19-21; prototype 4)



"It is easy and convenient to use, yet produces a satisfying result. I like that there is immediate feedback so I know it received my actions."

and sway of flo's leaves, Anne, intrigued, wonders what will happen if she takes another deep breath. She takes a deep breath.

deep breathing exercise and delightful surprise are a nice distraction and help Anne refocus through her busy schedule.

flo offers a breath of fresh air to provide clarity in lonely hours of struggle.

steady breath, steady flo.