

Project Proposal

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Team Web Page: <https://github.com/brendan-fullerton/hci-project.git>

1. Problem

Studying for exams can be a stressful experience—not only can studying the material be difficult in itself, but the way in which people schedule and format their studies can be an additional stressor, especially when they find themselves in a situation where they need to study for long periods of time. These long study sessions can be unhealthy for the body and mind when combined with procrastination, distraction, and poor study habits; this is due to short-term issues like poor posture and burnout, along with the long-term effects of stress. While a more ideal goal may be to improve study habits such as procrastination and cramming, it is important to provide more resources for those who need to study consistently for longer.

2. Evolution

Original Idea: Our individual ideas had a thematic overlap in addressing the stress that accompanies classwork and studying for exams that students face. These included Pomodoro-technique ideas to help better manage time during studying, improving posture that tends to weaken during work, blocking social media and other distracting notifications, and a personalized study companion application. Certain tools address these issues/functions individually, but there isn't one that tackles all of them, so our idea was to combine these into one catch-all app.

Changes: We changed from a more generalized app, which included greater focus on scheduling and reducing distractions, to a more refined and health-oriented app that specifically helps users study for long periods of time, reducing burnouts, keeping students healthy, and building good habits.

What We Learned: Our original problem statement was too generalized—we were using the “everything in the kitchen sink” approach, but this solution was both less focused and less viable, and warranted switching to a more narrow and specific approach. We learned that it's important to start small and specific before expanding out into different features that may not be essential for the app's functionality.

3. Target Users

Our target users are anyone with irregular long-term study patterns. This would encompass high school & college students, working professionals continuing their education, and instructors who need help with their grading sessions. These users have long work sessions, whether reading textbooks or crunching homework the day it is due. Users who lack study habits, get distracted, or need redirection should be helped most by the app. Users should be tech-savvy, or at least willing to implement more technology into their lives. Further users who could also benefit from this app would be workers whose companies want to experiment with productivity, or students with good study habits. Since they can already self-regulate their study sessions, using this app would reinforce these habits. This app could be used in non-academic settings as well, such as for parents who want to limit their children's screen time,

company employees, or people who want to reduce screen time and explore physical hobbies.

4. Solution

StudySesh is a studying application that accompanies your studying time, encourages good posture, and blocks distracting notifications. It is similar to a Pomodoro timer, where the student focuses on the task at hand until the timer expires, at which point a break is initiated. During these breaks, the user is given audio and visual feedback encouraging them to remove themselves from their screens and fix their posture. The app can also send encouragement to the user, acting as their personal study buddy. StudySesh would primarily be used when studying for a particular subject or upcoming exam using a computer, as it runs on a browser (although it could theoretically be turned into a desktop or even mobile app if developed further). The goal is to integrate time management, distraction blocking, and health reminders into one app. Made to be user-friendly and efficient, it would help users stay on track with their studies. Differing from other apps, it encourages prioritizing mental and physical health throughout the user's studies.

The main aspects of the interface would include the Pomodoro-style interval timer, where users can customize the length of their work intervals, break intervals, and longer-term study time; notifications to remind users of their posture and of interval changes, along with sending study encouragements; and a section that incorporates gamification by displaying study streaks and rewards the user can earn by using the app consistently. These rewards include collectibles and cosmetics, which can be used to customize the look of the app and of a little "study-pet" character that appears in the app.

5. Tech Plan

The project will be developed using React (JSX) on a laptop/desktop platform. It will be a web application accessed via browser. Key components include a timer method, a posture reminder, notification blocking, and a habit tracker, with user data stored locally. Additionally, APIs may be integrated to monitor user stress levels, enhancing the app's effectiveness if deemed beneficial. No external devices or sensors will be incorporated, as the app will only interact with the local computer.

6. Risks

The biggest risks for the app include not being strict enough in enforcing study sessions and the app becoming too generic, blending in with other similar tools. To minimize these risks, we will test whether users respond better to a lockdown browser or to receiving notifications to encourage focus. Additionally, we'll ensure the app carves out a specific niche by incorporating a spectrum of unique features that differentiate it from existing study apps, such as gamification and a more positive and encouraging ethos.