

# ADHD Focus Helper App

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## Summary of the study purpose

This study aims to explore and evaluate the effectiveness of current notifications, reminder systems, and task management strategies for individuals with ADHD. Given the executive functioning challenges associated with ADHD—such as difficulties in organization, time management, and task persistence—it aims to identify the most effective digital tools and techniques.

To achieve this, our research involves both Primary and Secondary methods. Primary consists of observations of individuals with ADHD (or obtaining diagnoses), conducted in real-world environments such as homes, libraries, and study spaces. We will document how participants interact with their surroundings, manage distractions, and utilize organizational tools. Secondary research will involve an in-depth review of existing literature, academic studies, and online discussions to contextualize ADHD challenges and solutions.

The findings from this study will inform the design and development of an ADHD-specific focus and productivity application. This app aims to provide tailored support through personalized reminders, effective notification strategies, and ADHD- friendly task management features. By understanding how users engage with productivity tools and the obstacles they face, we can create inclusive and effective digital assistants that enhance organization, reduce distractions, and ultimately improve the quality of studying for individuals with ADHD.

# Participants

## **Jasmine's participants:**

**Name:** Joshua

**Gender:** Male

**Age:** 23

**Occupation:** Communication Studies student

**Location:** Home

**Diagnosis:** ADHD with Inattentive Type (Inattentive Type or Hyperactive Type or Combined)

**Tech Savviness:** Very Tech Savvy

**Name:** Mio

**Gender:** biological female (goes by they/them pronouns)

**Age:** 18

**Occupation:** Marine Science student

**Location:** Dining Commons

**Diagnosis:** ADHD Combined (Inattentive Type or Hyperactive Type or Combined)

**Tech Savviness:** Very Tech Savvy

## **Teresita's participants:**

**Name:** Salvador Hernandez

**Gender:** Male

**Occupation:** High school student

**Location:** My house

**Diagnosis:** ADHD Combined Type

**Tech Savviness:** Intermediate to high Tech Savviness

**Name:** Ceasar

**Gender:** Male

**Occupation:** High school Student

**Location:** Cafe

**Diagnosis:** Obtaining Diagnosis

**Tech Savviness:** Intermediate to high Tech Savviness

**Victor's Participants**

Link to online ADHD groups visited

General description of users in the online groups, if available

**Brandon's Participants**

Link to online ADHD groups visited

General description of users in the online groups, if available

# Methodology

- Method: Areas of Focus

Build environment	Where do people go to study and complete their work.
Media consumption	How many people look at their phones scrolling through stuff.
Tools and technology	How people organize their work using certain tools.
Overall experience	What keeps them focused day to day.

- Method: Overall Logic

1. Methodology for your observation? (Contextual Inquiry, Deep Hangout, Observation Only...etc.) Describe how you will conduct this research method.

Jasmine and Teresita will do Contextual Inquiry observation by asking their users to walk through and ask them to walk you through the steps they take to stay organized and focused. They will quietly observe how a user interacts with their environment and note the distractions (phone notifications, noise) and how they respond to them. They will also watch how long a user spends on each task and whether they shift focus between tasks quickly. Jasmine and Teresita will observe two users each for at least 30 minutes.

Brandon and Victor will do Deep Hangout by joining online communities such as Reddit, Discord, or Facebook groups for people with ADHD to learn about their struggles and the strategies they use to cope with their symptoms.

- Bring a phone or notebook, pencil, and eraser, or use an app to take notes
- Introduce yourself
- Ask for permission to record or observe
- Observe for 30 mins or more
- Interact with the participant about themselves

2. Location for where the observations will take place.

These are possible locations:

Makerspace

Library (First or Second floor or Library Cafe, not Third)

Otter Express

OSU

Dining Commons

Cyber Cafe (Promontory)

Dorm Lobby (North Quad, Avocet, other buildings with lobby not including Strawberry)

Online

Home (where we live if we have someone who is part of our family who has ADHD)

3. Duration of the observation session

Observe for 30 minutes or more

● **Method: Specific Logic**

- Overall protocol to be followed in carrying out the observation
- Prep for the session: form, thing to take notes(paper, laptop, tablet, phone)
- Have the person set up for their study session as they normally would
- Sit with them or across from them to observe them as they study
- A possible form they can fill out of the effective things they did to stay focused on studying
- Thank them for their time, and maybe give them a small snack
- Maybe we can meet for another session, if possible at a different time

● **Method: Data Collection:**

- free-form notes of the observation
- Forms for them to fill out how they focused during their study session
- Ask permission and analyze screen time usage.

# Who did what and went where? How did you divide up the work?

The following is how we divided up the work and our observation notes.

## Deep Hangout (Conducted by Victor)

- For this deep hangout I visited Reddit to see and research what kind of tactics and methods people with ADHD typically use for concentration purposes and the reasoning behind them. Since all users are anonymous on the website I will use their screen name. Additionally, I will only include methods/strategies that are being used actively during something. So factors such as sleep and rest will not be accounted for.
  - The following is a list compiled by a user named “SpareAd2794” under the ADHD subreddit/thread.
    1. Medication
    2. Getting dressed up
    3. Allowing poor performance
    4. Having music/videos run in the background.
  - From what’s been gathered there seems to be a universal pattern where people, aside from medication, will use a physical ailment that they utilize to enhance their concentration and performance. The following is a quote from user “SirNobOff” in reference to getting dressed up to enhance performance:
    - “On my days off I usually chill in just pajama bottoms and end up doing entirely nothing... Unless I get dressed then I become ridiculously more productive in what I'll do throughout the day, even if it's just adding a pajama top and socks.”
  - Upon doing further research in the same reddit thread. There also seemed to be universal appeal and usage with strategies that don’t necessarily involve external physical factors but rather change in setting/environment. The following is a quote from user “seasuighim”
    - “For some reason, I always have to have it completely silent to work. I just created a soundscape on that website, the sound of summer where I live, as I've always wanted to capture that. However, I would become too busy looking up what type of birds I hear, and then go down the rabbit hole. For me, it's just silence I guess. Although,if I have to get college work done, I go to a more academic setting, or away from my computer/bedroom, At the cafe, library, around the main building are tables/seats, I usually take up one of those for four to five hours and get all my work done there.”

- From the two sources that I pulled there was no logistical explanation as to why those methods work for them other than personal experience/preference. The following will be common explanations and definitions for the reasoning behind why they primarily aid those with ADHD and performance.
  - Getting Dressed Up: Dressing well can boost self-esteem and confidence. When individuals feel good about their appearance, they're more likely to feel competent and capable. This is often referred to as "enclothed cognition," where the clothes we wear affect our psychological state and performance.
  - Working in Silence: Working in silence can often reduce cognitive load which helps the brain focus on the task without distractions, enhancing memory and reasoning. Quiet environments allow individuals to enter a state of flow, leading to higher productivity and better task performance.
  - Change in setting: A change in scenery provides new stimuli, which can refresh your mind and prevent feelings of monotony. This can reignite your creativity and help you approach tasks with renewed energy and perspective.
  - Having music/videos run in the background: Music has the ability to elevate mood, reduce stress, and induce positive emotions. When individuals are in a good mood, they're more likely to be productive and motivated. For some people, having background videos can provide a sense of company or engagement, reducing feelings of isolation, especially when working alone.
  - Allowing Poor Performance: Allowing for poor performance gives individuals the chance to make mistakes. Mistakes are valuable learning experiences that provide insight into what doesn't work and how to improve. This iterative process of trial and error is crucial for skill development and innovation.

## Deep Hangout (Conducted by Brandon)

- For my research, I observed open forums as well, particularly Reddit and YouTube, and open source articles/studies on the struggles and daily battles with ADHD.
- For apps like Youtube and TikTok, the rise of short-form content and the tendency to engage in multiple tasks simultaneously for constant stimulation are notable trends that have created a trajectory towards how many view the entertainment they engage with.
- Users on Reddit have pointed this out, particularly on the ADHD subreddit. Many are looking for remedies for this addictive form of entertainment.

- A user going by “DunnoMyself” stated in a thread: “I’ve wasted nights with shorts (YouTube videos less than 30 seconds long) before and it was terrible. So now I allow myself nothing. I don’t have a TikTok/Instagram/Snapchat and other social medias of any kind. I use a Youtube APK with shorts disabled.”
- One method discussed in a separate thread regarding battling ADHD methods was “Body Doubling.”
- This method has two different meanings, one of them is:
- Working alongside another person, physically or virtually, enhances focus and accountability.
- The second definition is seeing your future self and holding yourself today accountable. In a way, you aren’t who you are today, you’re always your future self and can reinvent yourself at the moment and begin going down a new path.
- Many on the subreddit talked about how they implement prompts or mini-tasks throughout their day to overcome a feeling of inertia and start bigger tasks.

## Contextual Inquiry (Conducted by Jasmine)

I conducted a contextual inquiry with two people on what they do to stay focused in class and organize their assignments on how they handle their ADHD. I will use their real names. I will be adding the methods or strategies they used while keeping track of their assignments.

**User 1:** The first person I asked to participate was my older brother Joshua where I observed him at home.

Time: 10:00 AM, Saturday, Feb. 8

- Before starting his work, I noticed he had gone into the bathroom with his phone and had been there for 10 minutes.
- He finally came back to his room and got on his computer to look at his email, however only looked briefly and has a lot of unread emails and only read ones that are from Handshake for job opportunities.
- He then logged into Canvas, looked through each class module, and took note of any new assignments. He is currently taking three classes this semester.
  - He checks his first class which is a physical education class. So far, no assignments.
  - He checks his second class and sees there are no new assignments.
  - He then checks his third class and sees that the professor has posted two homework assignments that are due Feb. 16.
  - He then copies the assignments and puts them in his Google calendar on the date they are due.

- He also plans out when he will start on the assignment so he has enough time to do them.
- I observed other things are planned on his Google calendar such as planning to work out and attend some career workshops at school.
- However, he admits he doesn't stick 100% to his plans as he gets distracted by fun things or gets tired and puts off the task.
- He then receives a text message from his friend which he responds to right away.

#### Quotes

- “Usually I like to listen to some chill hip hop music or lo-fi music or I listen to white noise or just kind of ambient stuff in the background. It helps me focus a lot more.”
- “The way I stay organized is first off, categorizing my time schedule and in different tasks that I have to get done in a day. And then I usually just prioritize the ones that are most important and I make sure to keep them different in sections.”

#### Observation summary:

Joshua keeps his room dark and doesn't like to use his ceiling light. He says he doesn't like bright light as he finds it hurts his eyes and being in a darker room makes him feel calmer, but sometimes sleepy. He spends a lot of time in the bathroom and seems tied to his phone. He says he gets text messages a lot or phone calls, which distracts him. He admits he has a hard time telling his friends he is busy, so it takes away from his focus. Putting his assignments and other important tasks in a Google Calendar is a technique he learned from an academic coach. This helps him feel more structured and organized.

**User 2:** The second person I asked to participate was my friend Mio (they/them) whom I observed at the Dining Commons.

Time: 12:00 PM, Monday, Feb. 10

- Sometimes they would go to the Dining Commons to do their work and eat lunch at the same time.
- They showed me how they take notes in class as they were taking notes for their math class on their iPad.
- They usually take notes to stay organized when they take notes in class with their notebooks.
- They usually like to draw in class while in class and it helps them pay attention in class and lectures or take notes in their notebook.
- They like to take one assignment at a time either using Google Docs.
- They usually write something physical for their Japanese class and they showed me how they write hiragana, katakana, or kanji on the paper and the proper way to write the characters.
- They also showcased to me what they draw in their notebook during lectures.

Quotes:

- “I like to draw or write notes to keep me entertained during lectures and organize my notes on a Google docs or **write it down in my notebook**. Then I check on my to do list with the work I got done one at a time. I feel that this is easier rather than tampering with multiple assignments at one time. I also take notes using the Glean app.”
- “I prefer to **draw or write notes** rather than looking at my phone when the professor is talking and I feel that looking at my phone makes me feel more distracted. I will be glued to watching videos of different things when I should be focusing on the lecture.”

### **Observation Summary:**

Mio prefers to bring their iPad to class because it is easier to carry compared to their computer because their computer is bulkier and heavier to carry around campus. They also like to take notes or draw during lectures because it keeps them focused in class rather than looking at their phone. They admit that looking at their phone makes them feel more distracted and become more focused on watching videos rather than focusing on lectures. They prefer to organize their assignments using a to-do list on their notebook or iPad to keep track of the assignments they finished. This helps them feel more structured and organized.

## Contextual Inquiry (Conducted by Teresita)

**User 3:** I will be observing my younger brother Salvador Hernandez and how he manages to stay focused while doing his work. He is a senior in high school and is in independent studies. He was in regular school for the first few weeks but due to his ADHD, he realized he had a really hard time focusing in class. He wasn't able to use his earbuds or any of his usual tactics, as well his friends proved too much of a distraction so he migrated to independent studies which has significantly helped him improve his grades.

- Logs into his laptop and then goes to his Google Drive to see what the plan is for the week and what he needs to catch up on. He meets with his advisor to monitor his progress this meeting takes an hour and a half more or less
  - He starts with checking his assignment folder and starting with the easier work which is online work through APEX
  - After setting up all the work he needs to do in different tabs he takes a small snack break and watches Instagram reels and messages his friends through Snapchat and Instagram.
  - Once he finishes his snack he goes back to his laptop opens a separate tab for Spotify and YouTube and proceeds to bounce between music and random gameplay videos
  - He puts his headphones on and starts to do his online module work to “get started

and in the mood for studying” which is computer applications, Spanish, and I believe math

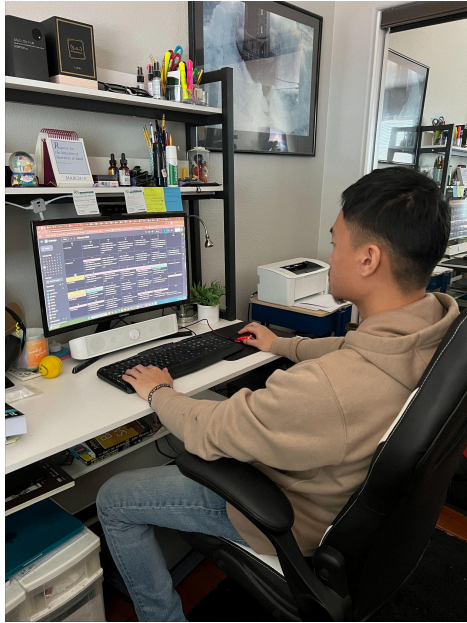
- After finishing his modules he moves on to his reading and writing assignments for history and English
- He goes into a separate tab for a **text-to-speech website downloads** all his reading into PDFs then uploads them to help him read his work then answers his work.
  - He sometimes uses **voice-to-text to get his thoughts out faster** then uses chat GPT to organize them in a better format
- Takes a break again to eat then plays video games for a bit on the laptop
- He starts by looking at work he needs to catch up on and proceeds to do it after getting permission from his teacher which opens the math modules he needs to work on and other work.
  - I'm not too sure what it is but he works on it as much as he can before calling it a day then proceeds to play video games with his friends for the rest of the day.

**User 4:** This is my brother's friend, Ceasar, who goes to school physically, they are old enough to go to the doctor and are actively trying to get a diagnosis in the meantime they manage along with teas, music, and fidget toys. I was able to do a partial observation because they had sports events during the weekend and we both go to school physically so I did what I could with this one.

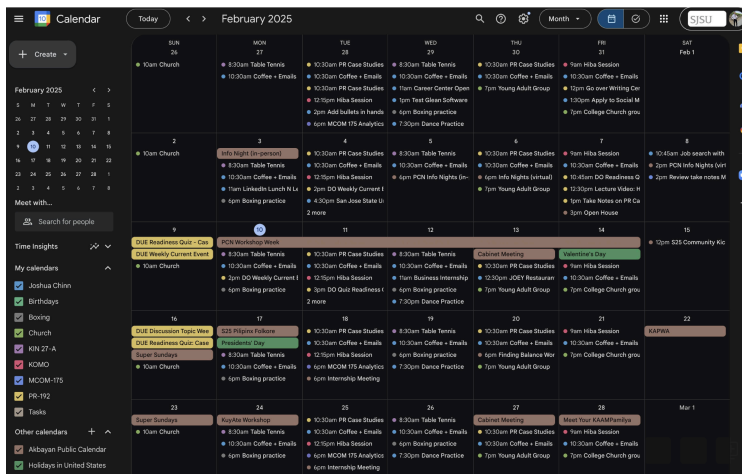
- Once getting home from school they take a resting break
- Depending on the assignment workload they either extend their break or immediately get to work
- They open Google Drive and open the docs they need, they look at their written agenda
- Put on a **music playlist** then put their phone to the side to focus
  - depending on the workload they take a hand full of short breaks or one long break in between
- They have snacks nearby because they like to snack while they study/do hw
- After finishing he plays video games

# Appendix

## Jasmine's users:



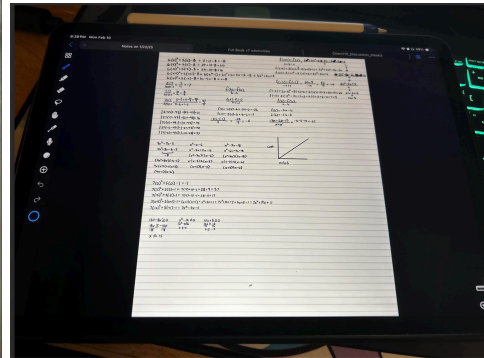
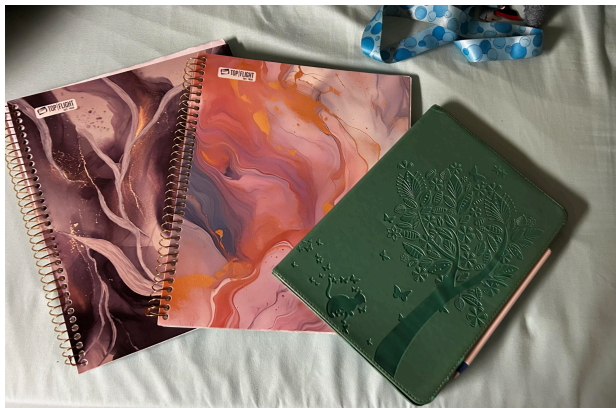
## Joshua's workspace



## Joshua's artifact–Google Calendar

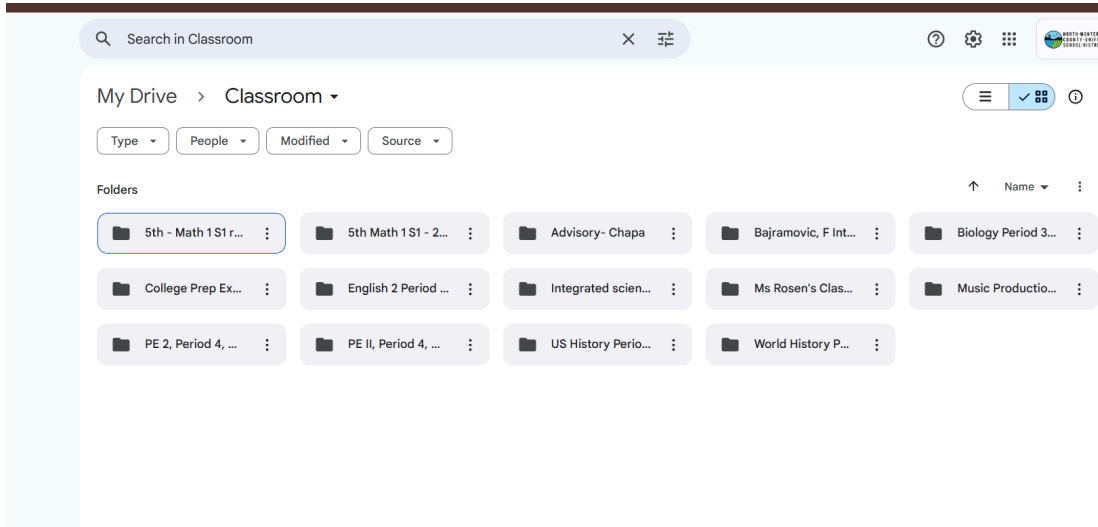












Mio's picture




Mio's artifacts – notebooks and iPad notes


## Teresita's users:




2	 <b>Motion Sickness</b> Vestron Vulture	Lionheart
3	 <b>Gallowdance</b> Lebanon Hanover	Tomb for Two
	 <b>Dirty Cash (Money Talks) - Sold Out 7 Inch Mix</b> The Adventures Of Stevie V	Dirty Cash (Money Talks)
5	 <b>Alien Blues</b> Vundabar	Gawk
6	 <b>My Flaws Burn Through My Skin Like Demonic Flames from Hell</b> \$uicideboy\$	I No Longer Fear the Razor Guarding My Heel
7	 <b>NEW MAGIC WAND</b> Tyler, The Creator	IGOR
8	 <b>Neglect</b> Mr.Kitty	Time
9	 <b>Sixteen Tons</b> Tennessee Ernie Ford	Sixteen Tons
10	 <b>Feathered Indians</b> Tyler Childers	Purgatory
11	 <b>(Ghost) Riders in the Sky</b> Johnny Cash	Hello I'm Johnny Cash



**Poppy Playtime: Chapter 4 - Part 2**  
Markiplier  
352K views · 5 hours ago















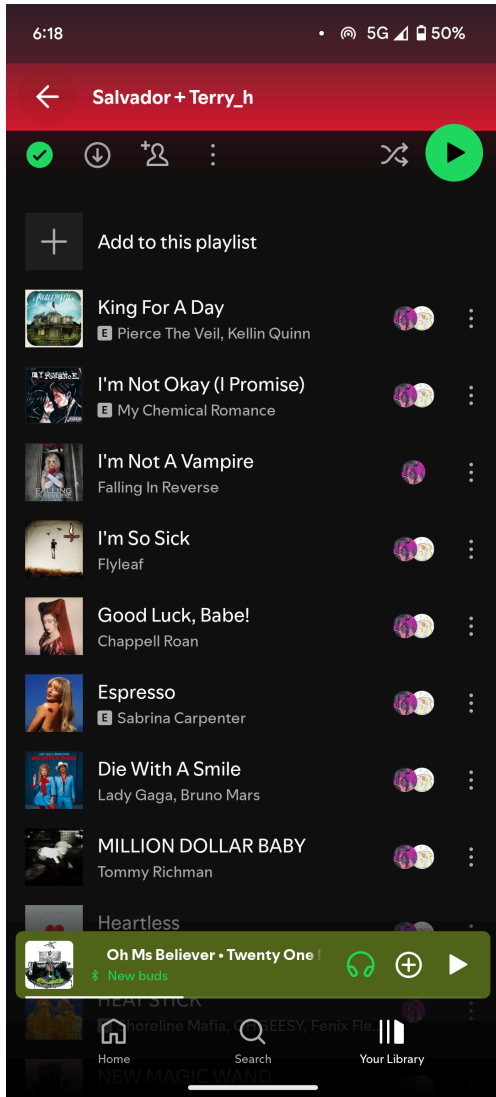
**Just Tostada being silly ✨**  
Fanforever :/  
1.6M views · 1 year ago



**I Locked Myself in a Haunted House for 24 Hours (Part 1: Meet Malvern Manor)**  
Watcher  
1.2M views · 1 month ago

## Quick picks Play all < >

 <p><b>GOSSIP (feat. Tom Morello)</b> Måneskin · 155M plays · RUSH!</p>	 <p><b>Running Up That Hill (A Deal With...)</b> Kate Bush · 63... · Hounds Of Lo...</p>	 <p><b>My Way (2008 Remastered)</b> Frank Sinatra · 2.. · Nothing But T...</p>
 <p><b>死ぬのがいいわ - Shinunoga E-Wa</b> Fujii Kaze · 459... · HELP EVER H...</p>	 <p><b>The Ballad of Mona Lisa</b> Panic! At The Disc · Vices &amp; Virtues</p>	 <p><b>T-Pain Mashup</b> T-Pain · 65M pl... · Oblivion (Expa...</p>
 <p><b>Daydream in Blue</b> I Monster · 19... · Neveroddorev...</p>	 <p><b>Daydreamer</b> Adele · 29M plays · 19</p>	 <p><b>Enormous Penis</b> Da Vinci's Notebook · Brontosaurus</p>
 <p><b>Sit Next to Me</b> Foster The Peopl · Sacred Hearts...</p>	 <p><b>Good Luck, Babe!</b> Chappell Roan · ♯ · Good Luck, Ba...</p>	 <p><b>Ain't No Sunshine</b> Bill Withers · 109M... · Just As I Am</p>



**Victor:**

**Brandon:**