Habit Tracking in Post-Secondary Students

Research Report

CARISA COUTINO, AMY CUI, KEVION DALEY, LEI LI

2025/10/09

EXECUTIVE SUMMARY

This study explores how post-secondary students between the ages of 20 and 29 track and form habits in their daily lives. We conducted semi-structured interviews with eight post-secondary students to gain nuanced insights on their habit tracking tendencies

Research Questions

- How do students track their existing habits?
- How do students form new habits?
- Why do students engage in habit tracking?

Key findings:

- **Consistency Challenges**: Students typically start habit tracking with enthusiasm but struggle to maintain consistency, especially when academic or professional demands increase.
- **Motivation Factors**: Automation, visual progress indicators, emotional triggers, and accountability systems play crucial roles in sustaining habit development.
- **External Support**: Students rely more heavily on external motivation than intrinsic motivation to maintain habits.
- **Tool Preferences**: Students prefer systems that are low friction, integrated, and flexible enough to accommodate changes in their schedules.
- **Self-Perception Impact**: Habit tracking success is closely tied to self-esteem. Students feel more positive when maintaining habits and discouraged when failing.

Primary Design Opportunities

Based on our research findings, we've identified five key design opportunities for habit tracking solutions aimed at post-secondary students:

1. **Adaptive and flexible Habit Tracking System** that allow for pauses during high-stress periods without punishing students or causing abandonment
2. **Visual Progress Indicators** that provide immediate feedback and micro-rewards to reinforce motivation and create a sense of accomplishment
3. **Seamless Integration** with existing tools to reduce friction and consolidate tracking across multiple life areas (academic, health, personal)
4. **Customizable Accountability Features** that offer varying levels of social engagement while respecting individual comfort with visibility
5. **Emotional Support Mechanisms** that reframe tracking failures as learning opportunities rather than judgments on self-worth

BACKGROUND

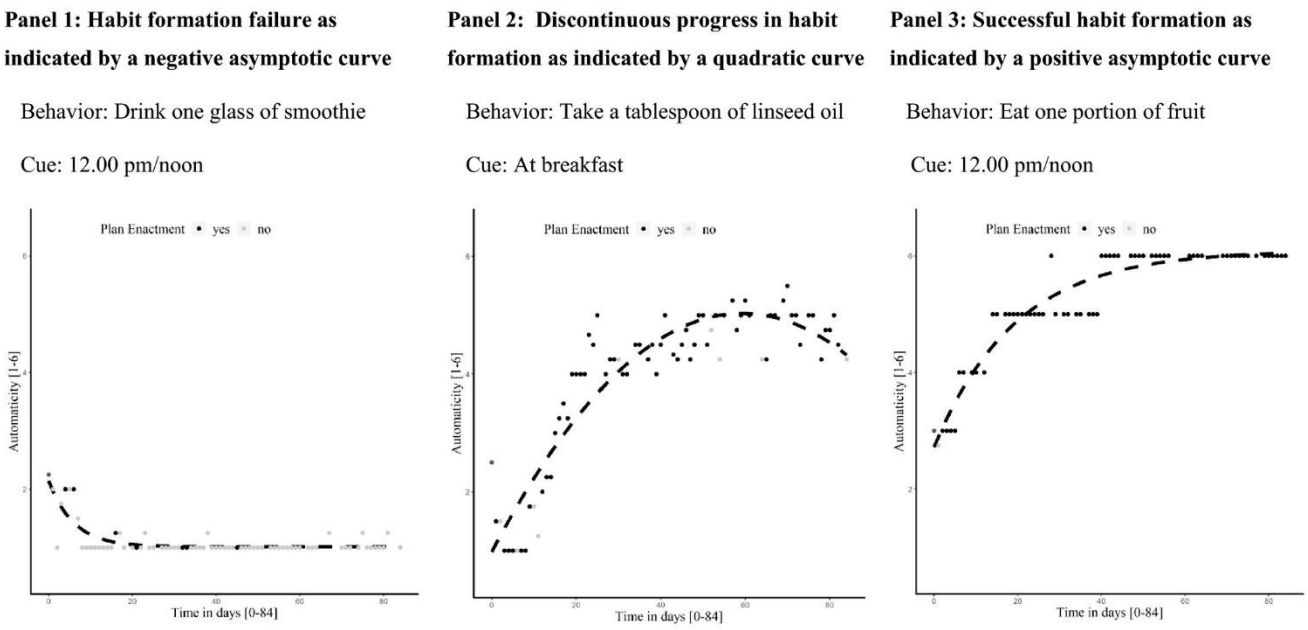
Habit formation and tracking have become increasingly important as students seek to improve productivity, mental health, and overall well-being. Our secondary research reveals that while the market offers numerous digital and analog tracking solutions, many fail to address the unique needs and challenges of post-secondary students.

Key Insights and Discoveries

Post-secondary students aged 20-29 represent a unique demographic for habit tracking solutions, as this particular group has digital fluency combined with significant life transitions that benefit from structured development tools. Research demonstrates that **students who successfully establish habits show improved academic** performance (Aljaffer et al.,2024).

The habit formation process is non-linear and accelerated by perceived rewards while being largely unaffected by changes in context (Schnauber-Stockmann and Naab, 2019). Their research revealed that short gaps in consistency don't significantly weaken habit strength and that long-term repetition matters more than short-term regularity.

Evidence from multiple studies confirms that cue-based habit development produces superior results, with event-based cues generating higher automaticity than time-based reminders (Stawarz et al., 2014). This finding suggests that **effective habit tracking solutions should help students anchor new behaviors to existing routines rather than relying solely on time-based notifications**.



(Keller et al., 2021, p. 815)

Our research also highlights the potential of micro-habits—small, easily achievable behaviors—to help students balance academic workloads with personal development while maintaining consistency. These micro-habits are particularly valuable during high-pressure periods like exams when maintaining larger habit commitments may become overwhelming.

Patterns Across Competitor Analysis

Analysis of six distinct habit formation approaches reveals consistent patterns that impact their effectiveness for post-secondary students.

	Approach	Motivation	Customi-zation	Time Needed	Key Strength	Key Weakness
Forest	Gamified	Growing Trees	Limited	Session-based	Visual Progress	Limited focus times
Finch	Emotional	Pet Care	Moderate	Low	Makes self-care fun	Requires daily usage
Habitica	Gamified	RPG Elements	High	Medium	Game-like rewards	Can overwhelm users
Habit Tracker	Structured	Statistics	Moderate to high	Medium	Comprehensive tracking	Complex interface
Bullet-Journal	Structured	Self-Expression	Unlimited	High initial	Complete flexibility	No built-in functionaltiy
iPhone Reminders	Structured	None	Low	Low	Extremely simple	Not habit-focused

Market Gaps and Design Opportunities

Current habit tracking solutions reveal significant gaps that present design opportunities for targeting post-secondary students.
Existing platforms struggle to effectively balance external and internal motivation systems, creating an opportunity for solutions that transition users from extrinsic motivators toward intrinsic motivation as habits become established.

Recovery mechanics represent another critical gap, as current solutions either overemphasize accountability (causing abandonment when users fall behind) or offer too much forgiveness (undermining commitment). Further research is needed to understand users'

emotional responses to missed goals and identify recovery mechanisms that prevent abandonment while maintaining accountability.

Finding the right balance between personalization and simplicity presents a significant design challenge. Overly complex customization overwhelms users while too little flexibility fails to meet individual needs. Successful solutions must support various engagement levels, from quick daily check-ins to deep personalization. Our research suggests that quick set-up and simple templates for micro-habits may be more important than additional advanced features for student users who need tools that are both flexible and motivating.

Finally, sustainable engagement is largely missing from current offerings, which often become counterproductive when the tracking system itself requires too much time and energy to maintain.
Primary research should examine when tracking systems become too burdensome for students, potentially causing them to abandon the very habits they're trying to build.

METHODOLOGY

Post-secondary students often develop micro-habits to boost their productivity and support their well-being. For many, habit tracking helps reduce stress and improve goal achievement.

The research gathered from primary and secondary research encouraged us to explore how reflection, rewards, and motivation affect habit tracking and formation which leads to the following research questions:

- How do students track existing habits?
- How do students form new habits?
- Why do students track their habits?

To investigate these questions, we conducted semi-structured interviews with eight university students aged 20-29 who intentionally track their habits. During screening, we selected respondents who demonstrated a clear understanding of habits, specifically those who indicated that habits are automatic, repeated, and triggered by specific cues. We recruited participants primarily through social media platforms like WhatsApp, WeChat, and Instagram. This approach allowed us to efficiently recruit students with varied tracking experience at no cost. Out of the initial nine screening survey respondents, 89% met our inclusion criteria.

Each group member used a shared interview guide to conduct two interviews. Each session included 14 questions and lasted no more than

30 minutes. This qualitative approach was chosen because it allows for open-ended responses, enabling us to examine nuanced factors (such as why students abandon habit tracking or how they recover from inconsistency) that other research methods might not capture.

All research was conducted in accordance with the TCPS 2: CORE 2022 ethical guidelines. Key ethical considerations included:

1. Informed Consent: Before each recorded session, we provided a formal overview of the study (explaining its purpose, potential risks, and data retention policies) and obtained both written and verbal consent.
2. Privacy and Confidentiality: We used approved platforms like Microsoft Teams, Apple Voice Memos, and Otter for recording. We anonymized all participants' personal data, stored it in a secure location, and retained only audio for analysis.
3. Risks and Benefits: We provided detailed documentation informing participants about the risks and benefits of the study and addressed any questions they raised.
4. Inclusive scheduling: We offered flexible scheduling to accommodate students' busy and varied timetables, ensuring voluntary participation was possible without monetary incentives.

PRIMARY RESEARCH RESULTS

Interviews were conducted with post-secondary students to investigate habit tracking behaviors, with focus on motivations, challenges, and tool preferences. Participant responses revealed consistent patterns that aligned with secondary research findings while providing deeper contextual understanding. These findings were categorized into four overarching themes.

Theme 1: Simplicity of Tracking

Students consistently reported that effort required for habit tracking significantly influenced if they continued or abandoned tracking. Complex and time-consuming tools often led to students abandoning habit tracking. Participants felt more encouraged to track when tools were efficient and easy to use. This led to many participants opting to use a physical or digital calendar rather than a productivity app.

As one participant explained, "Other times, I'll write it out on a piece of paper. Sometimes I have, like, a weekly schedule that I write out, and then I'll write it out there and I can track it that way. I have used apps before to track habits. I don't really need to do that anymore." This preference for simple analog methods over specialized applications was repeated across multiple interviews.

This strong preference for efficiency directly correlates with the multitude of obligations and limited time resources that students face. This aligns with secondary research conclusions regarding the importance of self-monitoring for consistent and rewarding habit tracking.

Theme 2: Visual Progress

Visual representation of progress was also a determining factor for continued or abandoned tracking. Participants reported that visual indicators like checkmarks, completed lists, or streaks created a sense of accomplishment that reinforced continued tracking behavior.

One student described the satisfaction of completing tasks: “after that, whenever I would finish the task... I would rip off that sticky note, crumple it up and throw it away. That felt really nice."

Another participant directly connected visual tracking to motivation, stating "I think having a record of my progress can be very motivating, and that's part of why I track my habits, because it helps me see that I'm making progress."

This finding reflects the importance of progress visibility that was identified in secondary research. Confirming that visual feedback mechanisms strengthen the connection between tracking behaviors and internal motivation development.

Theme 3: Motivation

Social accountability and external motivational factors significantly influenced motivation for habit tracking. Students frequently cited peer encouragement and external reward systems as key drivers for consistent habit maintenance. Students also mentioned that external reward systems encouraged them to put in consistent effort. These external frameworks helped participants associate positive emotions with tracking activities, making them less burdensome.

One participant articulated this need for external support: "It's a lot

easier to track a habit when there is some kind of external accountability... if it's for health reasons, like my doctor tells me, Oh, I need to eat Iron, for example, then I need to track that, because I need to report that to my doctor. When it's something I do for the sake of myself, it's harder to be motivated to track."
Another student noted the value of social support: "Having an accountability partner is also incredible."

These observations align with secondary research findings regarding monitoring and goal awareness. Monitoring and awareness of goals plays a large factor in achieving said goals. External accountability mechanisms increase progress awareness and encourage appropriate behavioral adjustments, while reward systems provide immediate reinforcement for longer-term habit development.

Theme 4: Personalization and Control
Participants demonstrated strong preference for customizable tracking experiences that preserved their autonomy. Many students disliked tools that imposed rigid tracking patterns. Students valued the ability to set their own parameters, schedules, and reminder frequencies.
One participant directly addressed notification fatigue, stating "I often find that if I constantly hear alarms going off for something, I'll just turn them off."
Another described a similar experience with alerts: "I would get a notification, and I would just either I would just dismiss the notification or like I would forget about it."

This theme directly supports secondary research findings regarding flexibility as a key factor in maintaining habit tracking. Adaptable systems prevent user frustration and resistance and allow users to feel in control of their habits.

Summary of Findings

Interview results demonstrate that students were most successful with habit tracking when it was simple, provided visual progress, and customizable. Efficient interactions and flexible frameworks encourage persistent use, while complex, rigid methods typically lead to abandonment.

Primary research findings closely parallel secondary research conclusions regarding progress visibility, monitoring ease, flexibility, and motivational mechanisms. These suggest that effective habit-tracking tools for students prioritize low-friction interactions, meaningful visual feedback, and customizable design to support long-term tracking and internal motivation.

NEXT STEPS

Design Opportunities and Rationale

1. Adaptive and flexible Habit Tracking System

- Rationale
    - Students abandon tracking tools when they feel punished for missing days or when the system demands too much effort during busy academic periods or schedules.
- Design Direction
    - Introduce "pause" or "recovery" modes that allow users to temporarily suspend habits or miss days without penalty.
    - Enable automatic re-entry through gentle prompts, such as "Ready to restart?" rather than "loss of progress" warnings. For instance, emphasize positive reinforcement rather than streak penalties.
    - Incorporate adaptive function or system, where daily task loads adjust dynamically based on users' reported stress or previously set schedule.
- Prototype Need
    - Create simple paper sketches or digital wireframes through Figma or Miro that show how users can "pause," "resume," or "restart" a habit.
    - Conduct a short peer test to see whether students feel less pressure when the system allows flexible breaks. Then gather quick feedback on what feels motivating or what feels discouraging.

2. Meaningful Visual Feedback and Micro-Rewards

- Rationale:
    - Participants reported feeling most motivated when they could see progress like visual confirmation and gamified progress, for instance through streaks, charts, or rewards such methods. However, they feel the least motivated when feedback is missing or lacking.
- Design Direction
    - Use dashboards, color indicators, or milestone badges to display progress.
    - Offer small motivational animations or "mini rewards."
    - Daily encourage quotes for positive framing.
    - Allow users to switch between minimalist and detailed visual modes to avoid clutter or anxiety.
- Prototype Need
    - Use basic prototype tools such as Figma, Miro, or Canva to design a few visual dashboards or streak trackers, such as calendar view, progress bar, or reward badge.
    - Ask the interviewers or eligible users to test and compare which layout feels more satisfying or easier to understand. Record the suggestions or recommendations regarding increasing motivation from the feedback.

3. Seamless Integration

- Rationale
    - After interviewing, many participants reported that they were using multiple apps simultaneously, such as Notes, Calendar, Finch, etc. Therefore, it would be best to design one unified tool that minimizes setup effort or combines multiple tracking needs in one interface through cross-integration.
- Design Direction
    - Combine multiple tracking needs, such as health, studying, wellness in one view or platform.
    - Include options to connect with existing phone tools like Reminders or interaction functions like Apple dynamic island.
    - Keep the interface minimal and low friction to minimize manual input.
    - Automate habit logging through user tracking devices such as step counter on phones, heart rate monitoring on wearable accessories, etc...
- Prototype Need
    - Build a clickable interface by Figma showing all habits or multiple functions on a single "home" screen or platform. Then, test with peers to see if the layout feels organized, time-saving, and easy to navigate.

4. Personalized Accountability and Social Encouragement

- Rationale
    - Accountability partners and online communities significantly improved consistency for most participants. However, some found public leaderboards stressful.
- Design Direction
    - Add optional social features, such as private sharing, peer groups, or friendly check-ins.
    - Allow users to choose their comfort level of visibility or preferred social depth, such as solo, private circle, or public community.
    - Use positive reinforcement language like “You’re improving”, instead of comparative ranking systems.
- Prototype Need
    - Sketch or prototype three options for sharing progress: private, small groups for friends or classmates, and public for anonymous leaderboard. Moreover, ask participants or eligible users to test and compare level of usage.

5. Emotional Support Features

- Rationale
    - Habit tracking is emotionally tied to self-esteem. Participants expressed anxiety about failure and a desire for reflection and encouragement instead of judgment.
- Design Direction
    - Add weekly reflection prompts, such as "What went well this week?".
    - Include mood-tracking or journaling functions.
    - Emphasize progress and learning rather than perfection.
- Prototype Need
    - Design a low-fidelity journaling pop-up or reflection card by using Figma or paper sketching. A think-aloud test should be conducted on testers to evaluate if the feature feels comforting, neutral, or intrusive.

Integrated Research and Implementation Plan

To address each design opportunity, we will employ specific research methods that connect directly to our design goals:

- User Journey Mapping: Map daily academic routines to show the emotions and feedback of users at each stage of their experience with our group project or tracking progress.
- Participatory Design: Invite peers or participants to co-design visual and motivational elements.
- Accessibility and Inclusivity: Compatibility and inclusiveness testing, such as color-blind modes and multilingual text, also included tests for readable typography, and language clarity.

- Iterative Prototype Testing: Employ 2-3 testing rounds of low-mid-high fidelity, such as from paper sketches to mid-fidelity Figma then interactive prototype.
- Behavioral tracking: Track streaks, restart rates, and emotional feedback to evaluate motivation.

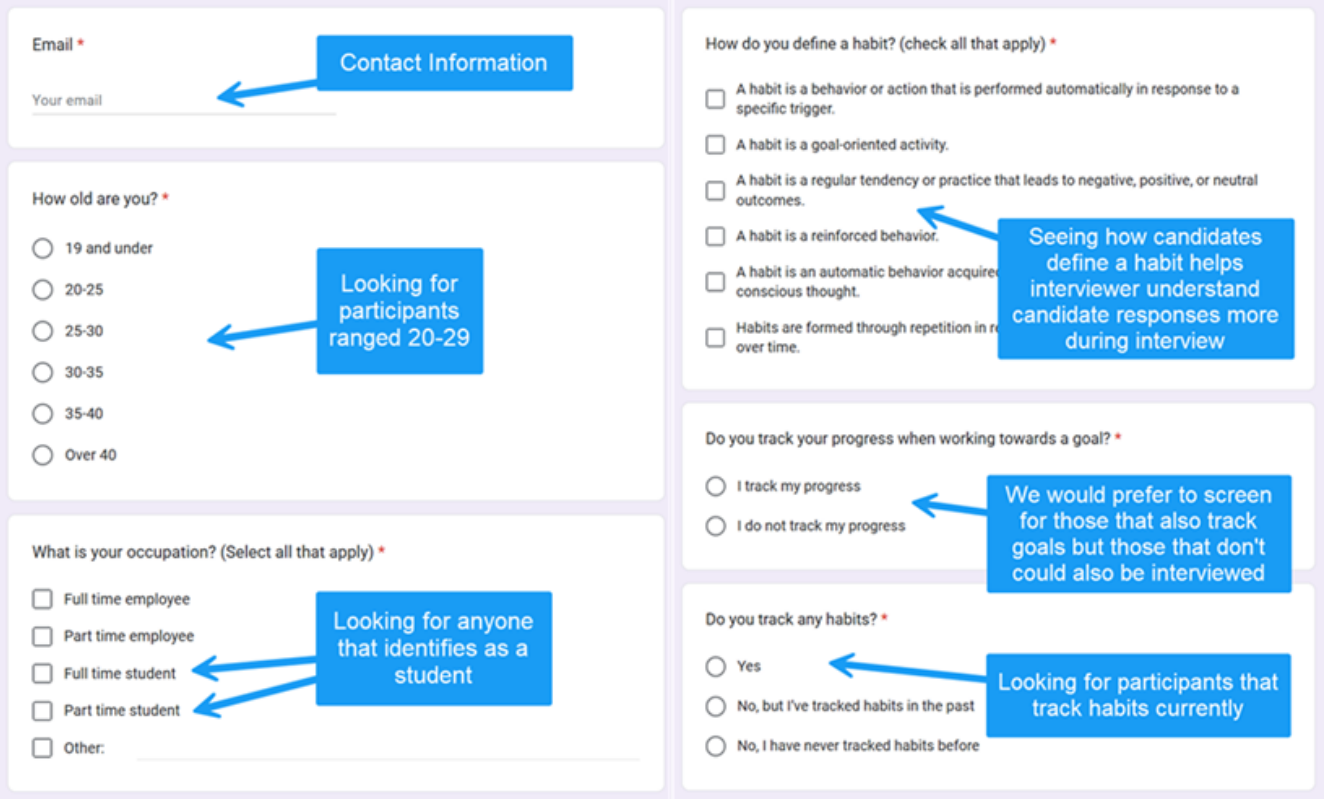
Future Validation

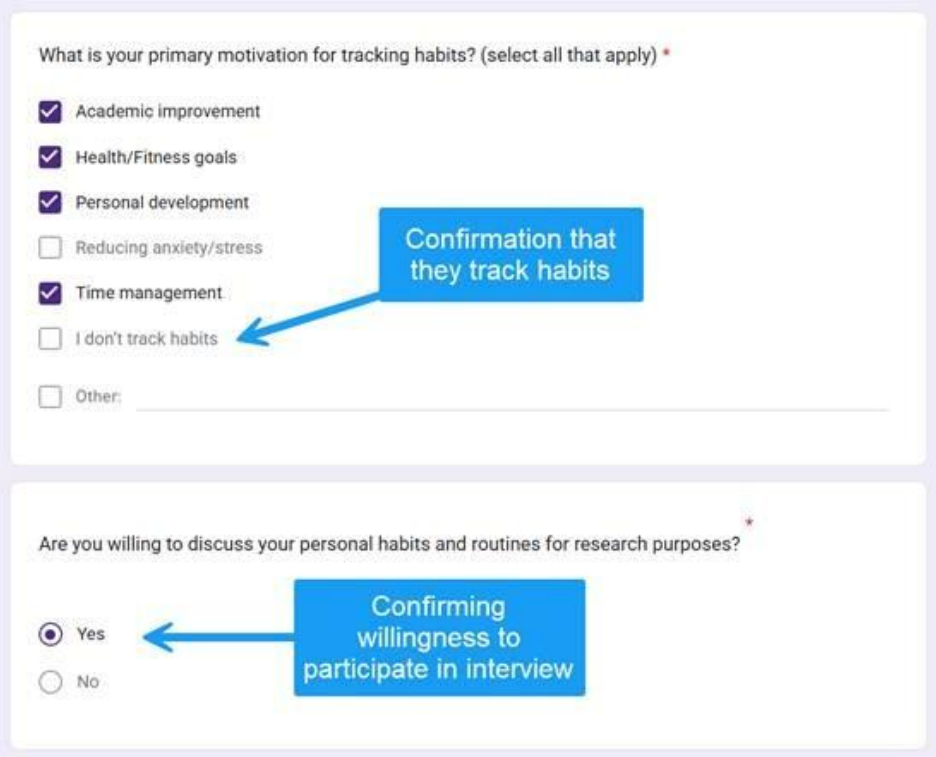
Stage	Goal	Method	Expected Outcome
Low-Fidelity Prototype	Test conceptual clarity and basic user flows	Paper wireframes with peer feedback	Identify confusing elements, unclear visuals, and initial emotional responses
Mid-Fidelity Interactive Prototype	Evaluate engagement and flow	Clickable Figma UI interface demo	Observe usability and emotional response and feature preference
Refined Version	Validate design decisions	Test with volunteers from multiple disciplines	Collect data and feedback on consistency and satisfaction

APPENDIX

Process Documents

Interview Screener





Informed Consent Form

Interview Invitation & Participant Consent

You are invited to take part in a student-led research study as part of a class project. We are asking you because **you are a post-secondary student between the age of 20-29 that has noted in the screening survey that you track habits.**

Taking part in this activity is your choice. Please read this letter and ask any questions you have before you decide.

Purpose of the Study

The purpose of this study is to learn how and why post-secondary students track habits as well as why they create habits. It is also for me as a student at the University of Toronto to learn how to conduct these kinds of research activities.

What You Will Do

If you agree, you will:
Take part in an approximately 10-minute in-person interview. This interview will be recorded through the iPhone voice memo application which stores all recording and transcriptions locally.

Voluntary Participation

Being a part of this study is completely voluntary.
You may skip any question.
You can stop at any time, without giving a reason.
If you withdraw from the study during or after the session, we will delete any information you have shared and not include it in any analysis after your withdrawal.

Risks and Benefits

Risks

- You may feel uncomfortable answering some questions, please feel free to skip any questions you do not wish to answer.

Benefits

There may be no direct benefit to you, but what we learn will help me develop my skills and improve the outcome of my student project.

Incentive

There is no monetary incentive or reward for participating in this study.

Privacy and Confidentiality

We will keep your information private.
Only the research team will see your data.
We will not use your name in reports or presentations.
Results of this and other sessions may be presented in our class or assignments, but you will not be identified.
Data will be stored securely and kept only until February 1, 2026.

Questions

If you have questions about this study, please contact **adam.rallo@utoronto.ca**.

Consent

Please read and check the boxes that apply:
[] I understand the study and agree to participate
[] I agree to be audio recorded

Name (print): _____

Signature: _____ Date: _____

Interview Protocol

Introduction

"Hi there! Thank you for joining me today. We really appreciate you taking the time to share your experiences. This interview aims to understand how university students like yourself manage habits. There are no right or wrong answers.

Before we start, we received your consent form and just want to review some quick reminders.

- Taking part in this interview is completely voluntary. You may stop at any time for any reason.

- Everything shared today will remain confidential and to be used for research purposes only.

- With your permission, I would like to record an [audio/video] recording of this interview, so I don't miss anything. This recording will not be shared with anyone but my supervisor [professor/TA]. An anonymous transcript will be shared with my group mates.

- Please feel free to ask questions at any point during the interview.

- If you are not comfortable answering any questions that come up during the interview, then you may abstain from answering.

- This interview will take approximately 5-10 minutes.

Do you have any questions before we start?"

Interview Questions

What's your experience been like with habit tracking?

What motivates you to create a habit?

In the past, what have you done to establish a new habit?

What motivates you to track your habits?

- What makes you decide if a habit needs tracking or changing?

What factors influence whether you continue or abandon habit tracking?

What specific methods do you use to track your habits?

- What about these tracking methods do you find most helpful?

How has your approach to habit tracking changed during your time at university?

In what ways has habit tracking been useful to you?

Which supports might help you to improve your habit tracking?

Do you have any questions for me about this research?

Closing

That's everything that I have planned for today. Thank you for your time and sharing your thoughts and experiences with me. Your insights will be valuable in helping us understand how university students approach habit formation and tracking.

After this interview, your input will be anonymized and combined with the input from other interviews. Your individual responses will remain confidential.

Are there any questions for me that you would like to ask?

Once again, thank you for coming in today. We really appreciate your help.

Visual Summary of Themes

Theme	Primary Research Key Finding	Secondary Research Findings	Quote
Simplicity of Tracking	Students are encouraged to track habits when tracking is efficient and requires minimal effort.	*Ease of Self-Monitoring* Tracking works best when it is quick, easy, and rewarding.	*I'll write it out on a piece of paper. Sometimes I have, like, a weekly schedule that I write out, and then I'll write it out there and I can track it that way. I have used apps before to track habits. I don't really need to do that anymore"*
Visual Progress	Visible progress such as checkmarks or streaks,reinforces motivation and consistency.	*Progress Visibility* People prefer visual proof of their progress.	*"I think having a record of my progress can be very motivating, and that's part of why I track my habits, because it helps me see that I'm making progress. "*
Motivation	Social accountability, and external reward systems help students stay consistent.	*Ease of Self-Monitoring* Tracking habit-related behavior increases awareness and accountability.	*Having an accountability partner is also incredible, but harder to find.*
Personalization and Control	Flexible, customizable tools encourage long-term use and provide a positive experience.	*Flexibility* Rigid, unforgiving tracking systems can be demotivating.	*"I often find that if I constantly hear alarms going off for something, I'll just turn them off"*

References

Keller, J., Kwasnicka, D., Klaiber, P., Sichert, L., Lally, P., & Fleig, L. (2021). Habit formation following routine-based versus time-based cue planning: A randomized controlled trial.

Schnauber-Stockmann, A., & Naab, T. K. (2019). The process of forming a mobile media habit: results of a longitudinal study in a real-world setting. Media Psychology, 22(5), 714–742. https://doi.org/10.1080/15213269.2018.1513850