BACKGROUND RESEARCH

Comparative Analysis of Habit Tracking Apps

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Executive Summary: Habit Tracking and Formation

Problem Space Overview

Post-secondary students aged 20-29 represent a particularly interesting demographic for habit tracking solutions. This demographic is digitally fluent yet is at an age where they typically experience significant life transitions and desire non-intrusive tools to improve self development. *For clarity, all references to "students" throughout this report specifically denote post-secondary students aged 20-29.*

By examining how these three solutions address the unique constraints and motivations of post-secondary students, we can identify effective design patterns for a tool that can support habit formation.

Key Findings Summary

Aspect	Finch	Habitica	Bullet Journaling
Motivational Approach	Emotional connection to pet	Gamification and RPG elements	Creative expression and self-reflection
Customization	Moderate	High	Unlimited
Time Investment	Low (5-10 min daily)	Medium (10-20 min daily)	High initial setup, varied maintenance level
Failure and Recovery Mechanism	Minimal penalties, "Try Again" Opportunities	Medium Penalties, Opportunity to erase previous penalties	Self-directed, no built-in failure or recovery mechanics

The comparative analysis of three habit tracking solutions revealed several key insights relevant to designing for post-secondary students:

- **Varied implementations**: by comparing a mobile app, website, and a physical journal, we can identify how different mediums serve students needs
- **Diverse motivational mechanics**: each solution employs different psychological triggers which appeal to different student motivations
- **Customization impact on usage**: the solutions offer varying degrees of customization which may impact their usages
- **Time investment requirements**: the three platforms range from low commitment to high commitment, addressing the constraint of time availability among post-secondary students
- **Forgiveness mechanism** can cause or relieve user stress

These findings suggest that an effective habit tracking solution for post-secondary students should balance structure with flexibility while also implementing a mechanism for failure to maintain consistency of tracking. The following sections explore each solution in more detail

Source Analysis

Source #1 - Finch: Self-Care Pet

Target Users

- Students struggling with mental health need accessible support due to academic and social pressures
- Students seeking self-care motivation need structured tools to maintain healthy habits amid chaotic schedules
- Students who enjoy gamification need achievement-based wellness tracking that resonates with their digital preferences
- Students wanting social connection need community-integrated mental health tools to combat isolation and normalize wellbeing conversations

Core Value Proposition

- "Take care of your pet by taking care of yourself". Finch transforms self-care from a chore to a rewarding, lightweight and fun experience

Key UX Strengths and Weaknesses

✓	✗
Pet-care as an emotional motivator creates stronger commitment than abstract health benefits	May create dependency on external motivation rather than intrinsic self-care desire
Low time investment with quick daily check-ins makes consistency achievable	Forgiving failure mechanisms could potentially enable avoidance of accountability in self-care practices
Multiple reward types (in-app currency, mini-pets, bird growth) provide varied satisfaction	Virtual rewards may lose impact over time for some users
Forgiving approach with "try again" opportunities reduces shame and abandonment	Analytics might be limited compared to specialized mental health apps
Guided exercises instead of blank-page approaches (reducing friction)	Possible lack of clinical backing for mental health exercises

Finch SWOT Analysis

Category	Analysis
Strengths	• Low time commitment makes daily consistency achievable • Combines multiple mental health tools into one cohesive experience • Emotional attachment to the virtual pet results in strong engagement • Approachable and friendly interface reduces stress
Weaknesses	• Lacks robust clinical validation for mental health exercises • Limited customization compared to competitors
Opportunities	• Partner with educational institutions • Integrate with health tracking devices/platforms • Collaborate with schools to support student wellness
Threats	• Rising competition in mental health app market • Market saturation of gamified self-care apps • User fatigue if pet mechanics become repetitive

Source #2 - Habitica

Target Users

- Students who struggle with completing academic tasks and assignments
- Students who are familiar with RPG games and enjoy game-like progression systems
- Students who respond well to gamification elements to maintain motivation
- Students who want strong social accountability features for motivation
- Students who desire highly customizable tracking tools to monitor various aspects of their academic and personal development

Core Value Proposition

- "Gamify your life". Habitica transforms mundane daily tasks, habits, and goals into an engaging role-playing game

Key UX Strengths and Weaknesses

✓ Strong motivation through RPG rewards and penalties	✗ Primarily appeals to gamers, limiting broader appeal
✓ Extensive character customization supports player identity and investment	✗ Premium features locked behind paywall can create frustration
✓ Party/guild systems create peer pressure and support for habit maintenance	✗ May overwhelm users with too many features and options
✓ Clear separation between habits, dailies, and to-dos matches realistic productivity needs	✗ Steep learning curve with numerous game mechanics to understand and higher time investment

Habitica SWOT Analysis

Category	Analysis
Strengths	- Social features encourage peers to compete or support each other - Adaptable to user needs - Encourages mindfulness through clear task organization - Extensive customization options - Clear task organization (habits, dailies, to-dos) - Third-party developer support
Weaknesses	- Interface may feel overwhelming - Steep learning curve with complex game mechanics - Requires more time investment than simpler tools - Key features behind paywall
Opportunities	- Integrate with workplace productivity tools - Adapt to multiple productivity methodologies
Threats	- Competition from simpler productivity apps - User burnout from over-gamification - Engagement declines after novelty fades

Source #3 - Bullet Journaling

Target Users

- Students who prefer physical notebooks over digital tools for organization and task management
- Students seeking productivity systems that allow for artistic expression and personalization
- Students with digital privacy concerns who prefer offline, tangible record-keeping methods
- Students feeling overwhelmed by technology who desire a less intrusive planning method

Core Value Proposition

- Bullet Journaling is a journaling method that aims to increase mindfulness and helps arrange users ideas and life (Carroll, 2018)

Key UX Strengths and Weaknesses

✓ Unlimited flexibility to design pages that match exactly what the user needs	✕ Setting up and maintaining layouts can be time-consuming
✓ Internal satisfaction from creating and maintaining an organized system	✕ Can trigger anxiety about making mistakes or having "ugly" pages
✓ Provides screen-free planning and reflection time	✕ Lacks reminders or alerts for important tasks/events
✓ Physical writing enhances memory and comprehension **	✕ Physical notebooks must be carried everywhere and no efficient search functionality
✓ No data collection or subscription costs	✕ Social media showcases of elaborate journals can create unrealistic expectations

** (Marano et. Al.,2025)

Bullet Journaling SWOT Analysis

Category	Analysis
Strengths	- Deep personalization - Fully customizable to user preferences - Screen-free system reduces digital fatigue
Weaknesses	- No built-in accountability mechanisms - May trigger perfectionism or anxiety - Time-consuming setup and maintenance - No automated reminders, search, or tracking features
Opportunities	- Expand stationery and journaling accessory market - Publish guides and creative variations
Threats	- Unrealistic social media standards for aesthetics - Competition from digital journaling tools - Time scarcity among users - Growing digitalization reducing analog appeal

Common Patterns

- These solutions target students struggling with motivation and consistency in different domains (self-care, tasks, organization)
- Provide frameworks that allow for user personalization
- Incorporate failure recovery mechanisms
- Risk of relying on the system rather than internal motivation
- More personalized or complex systems require greater time investments
- Digital platforms struggle with balancing of free vs paid features

These patterns suggest that habit tools should have a balance between the following factors:

- Structure vs. flexibility
- Simplicity vs. customization
- External motivation vs. Internal motivation development
- Time investment vs. convenience
- Specialized appeal vs. broad accessibility

Comparative SWOT Analysis – Key Insights

Category	Key Insights
Strengths	- Low time commitment options accommodate busy academic schedules - Emotional connections to virtual elements maintain engagement during stressful periods - Social accountability features align with students' peer-oriented mindsets - Screen-free alternatives help combat digital fatigue from coursework - Customization options allow adaptation to changing semester schedules - Clear organization systems help manage complex academic and personal responsibilities
Weaknesses	- Learning curves for complex systems compete with academic time demands - Premium features create financial barriers for budget-conscious students - Time-intensive setup deters adoption during busy academic periods - Limited customization in some tools fails to accommodate unique student schedules - Perfectionism triggers may exacerbate academic pressure and anxiety - Lack of built-in accountability in some tools requires additional self-discipline

Opportunities	- Academic institution partnerships could provide subsidized access - Integration with existing student productivity tools creates seamless workflows - Cross-platform compatibility accommodates students' device-switching behaviors - Support for varying engagement levels meets fluctuating availability during term cycles - Mental wellbeing focus addresses growing student mental health concerns - Adaptation to academic calendar cycles (semesters, finals, breaks)
Threats	- Growing app fatigue among digitally saturated student population - Competing priorities during academic crunch periods lead to tool abandonment - Privacy concerns regarding personal data collection - Short-term engagement followed by abandonment after novelty fades - Financial barriers limit long-term premium feature access - Time constraints during high-stress academic periods reduce consistent usage

Design and Research Implications

Key insights to guide

- **Event-based Cues vs. Time-based Reminders**: The analysis of Finch and Habitica reveals that both rely heavily on time-based notifications, which our users often ignore during busy academic periods. Research by Stawarz et al. (2014) suggests that event-based cues lead to higher automaticity and better habit formation. Therefore, design should prioritize contextual triggers (such as completing a class or arriving at the library) rather than fixed time reminders
- **Skill Development Over Consistency Tracking**: All three solutions track habit consistency, and users often abandoning tools after experiencing multiple 'failure' states. A more effective approach would highlight skill development and improvement over time rather than just tracking consistency
- **Balanced Customization**: The SWOT analysis reveals a clear tradeoff between customization and accessibility. An optimal design would balance customization options to provide flexibility without overwhelming new users
- **Variable Engagement Levels**: Post-secondary students' available time fluctuates dramatically throughout the academic term. An effective system would accommodate varying engagement levels—from quick daily check-ins to deep personalization
- **Failure Recovery Mechanisms**: A critical finding across platforms is the impact of failure handling on continued engagement. Supportive failure recovery mechanisms should be a core functionality for maintaining student engagement

Key insights that will inform primary research design

- Conduct longitudinal studies to determine how different motivational approaches sustain engagement over extended periods
- Implement observational field studies of students' interactions with productivity tools in natural settings
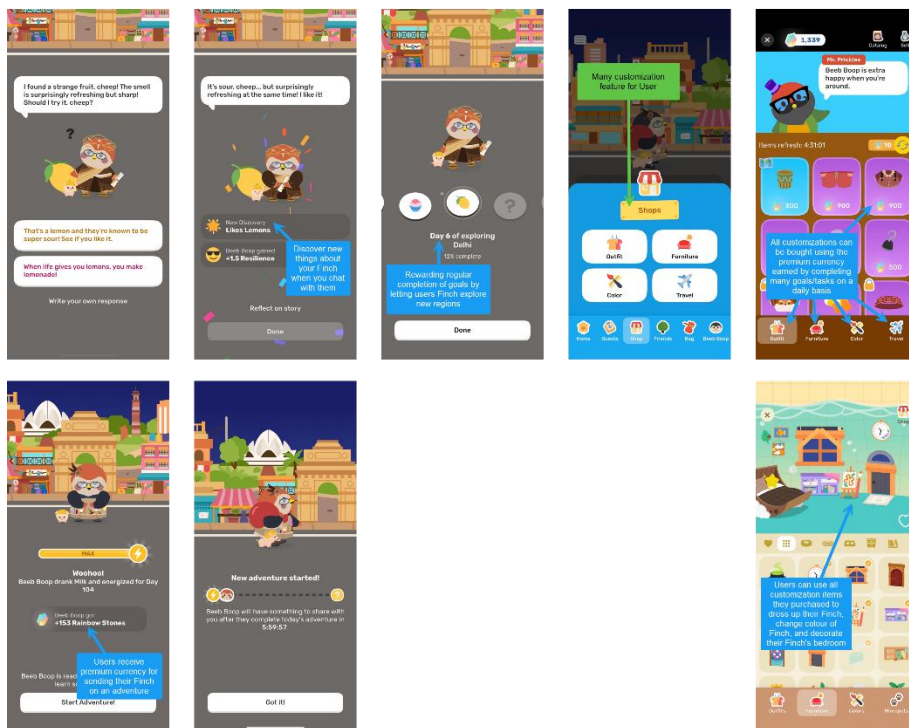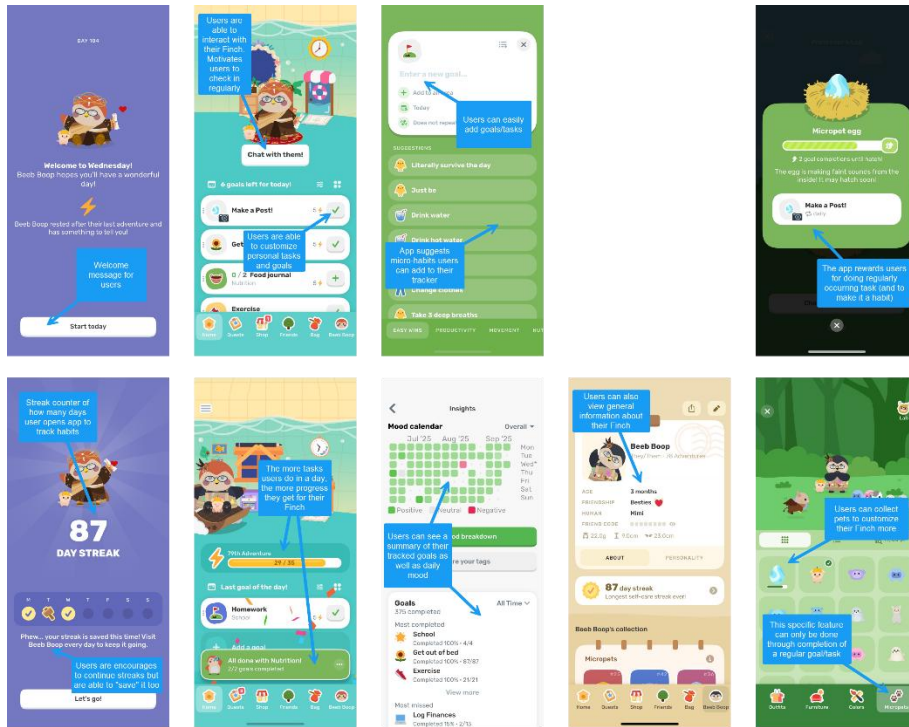- Develop methodology to identify critical moments that lead to tool abandonment

Preliminary assumptions to test or validate

- Users initially require external motivation but gradually develop internal motivation as habits form
- Visual aesthetics significantly impact initial adoption but become less important for retention compared to functional benefits
- The effectiveness of social accountability features varies significantly based on personality type and goal domain
- Gamification elements have diminishing returns on motivation after a certain time threshold

Specific areas requiring user investigation

- How do users emotionally respond to missed goals/tasks, and what recovery mechanics most effectively prevent abandonment?
- At what point do users transition from needing external rewards to being internally motivated?
- How do users adapt their productivity systems when moving between different domains (school/personal)?
- Which types of rewards (visual, functional, social) create the most sustained motivation across different user types?
- At what point does managing a productivity system itself become counterproductive?

Finch screenshots

Habitica Screenshots

Bullet Journal Photos

High amount of personal customization

Many different formats

User can also track based on months

User can also track based on singular or multiple dates

Appendix

Website Image Sources

Earley. (2022, March 14). What Is a Bullet Journal? (And How to Get Started). Oprah Daily. https://www.oprahdaily.com/life/work-money/a32155559/how-to-start-a-bullet-journal/

Archer and Olive. (2022, June 24). Bullet journal habit tracker ideas to help you make lifestyle changes. https://www.archerandolive.com/blogs/news/bullet-journal-habit-tracker-ideas-to-help-you-make-lifestyle-changes

Yop & Tom. (n.d.). The complete guide to habit trackers & habit tracker template. https://www.yopandtom.com/blogs/news/the-complete-guide-to-habit-trackers-habit-tracker-template

HabitsBuzz. (n.d.). 52 bullet journal habit trackers ideas to improve your life. https://habitsbuzz.com/bullet-journal-habit-trackers-ideas/

In-Text Citations

Aljaffer et. Al. (2024). The impact of study habits and personal factors on the academic achievement performances of medical students. PMC. https://pmc.ncbi.nlm.nih.gov/articles/PMC11334364/

Carroll, R. (2019). The bullet journal method: Track the past, order the present, design the future [Summary]. Durmonski.com. https://durmonski.com/wp-content/uploads/2019/01/The-Bullet-Journal-Method-by-Ryder-Carroll-The-book-in-30-seconds-desktop.pdf

Finch. (n.d.). Finch - Self Care Pet [Mobile app]. App Store. https://apps.apple.com/us/app/finch-self-care-pet/id1528595748

Habitica. (n.d.). Features - Habitica. Retrieved September 18, 2023, from https://habitica.com/static/features

Marano et. Al. (2025). The Neuroscience Behind Writing: Handwriting vs. Typing—Who Wins the Battle?. PMC. doi: 10.3390/life15030345.

Stawarz. (2014). Beyond Self-Tracking and Reminders: Designing Smartphone Apps That Support Habit Formation. designwkn.com. https://designwkn.com/wp-content/uploads/2023/09/Beyoung-Self-Tracking-and-Reminders.pdf

Process Documentation

Date (MM-DD)	Action	Notes
09-12 (during class)	Decision to do competitive/comparative analysis	Decided on Finch and Habitica. Have not found a 3rd source yet.
09-16 (4-5PM)	SWOT analysis of 3 tools	Decided on Paper journalling as last source as I wanted to analyze multiple different mediums.
09-17 (2-5 PM)	Grabbed screenshots/stock photos and annotating	Spent a while testing Habitica as I have not used it before
09-17 (8 PM)	Accidently spent about 2 hour reading research papers due to misunderstanding of instructions. Also wrote formal academic research analysis due to this misunderstanding.	Lesson learned: read instructions fully before starting an assignment.
09-18 (1 AM)	Scratched all previous progress and restarted analysis	
09-18 (3 AM)	Started working on section 2. Source Analysis	
09-18 (5 AM)	Started working on section 3. Design & Research Implications	
09-18 (6:30 AM)	Finished report. Started checking over process	
09-18 (7 AM)	Done editing.	
09-19 (9:30 AM)	Revisions	Granted extension
10-16	Edited document for resubmission	Following feedback received: • Turned SWOT analysis into actual text tables rather than image • Separated into individual tables for better organization • Made a combined SWOT analysis summarization to connect material better • Reworded a few points to connect them more with researched material. • Added more detail to process documentation section.

AI Usage

- Input
    - Output + Modifications

- "Help me figure out the layout of this assignment [pasted all sections pertaining to Option A]"
    - Suggested layout of report for specifically Option A analysis (AI Figure 1), suggested tips from assignment information, and evaluation of assignment.
- "Turn the following into a short, summarized list [pasted Previous Key Findings Table]"
    - Output: what's now in the key finding section
- "Help me cite these courses in APA format [list of links]"
    - Most of it was wrong. I just used it as a template to put in correct names and dates.
- "what's the proper format for a target user statement?"
    - A proper target user statement (sometimes called a user persona statement) typically follows this format: [Target user] needs [need/goal] because [insight/motivation].

Executive Summary (<1 page)

- Brief overview of your problem space
- Summary of key findings from your analysis
- Rationale for selecting these particular solutions

Source Analysis (2-3 pages)

For each competitor/comparator:

- Name, screenshot with annotations
- Target user demographics
- Core value proposition
- Key UX strengths and weaknesses (presented in a table)

Then analyze across all three:

- Common design patterns and their effectiveness
- SWOT analysis of current solutions

Design & Research Implications (<1 page)

- 3-5 key insights that will guide design decisions
- 3-5 key insights that will inform primary research
- Preliminary assumptions you'll need to test
- Specific areas requiring further user investigation

AI Figure 1

Previous Key Findings Table

	Motivational Mechanisms	Customization	Engagement Requirements	Reward Mechanisms	Failure Recovery Mechanisms	Target User Alignment
Finch	pet-care as an emotional motivator	Moderate customization	Low time investment with quick daily check-ins	In-app currency, Mini-pets, Bird growth	Forgiving approach and "try again" opportunities	appeals to students seeking emotional support or comfort
Habitica	RPG game like mechanics to gamify habit formation	High customization	Medium time investment but provides deeper social reinforcement mechanisms	In-app currency, Items, Level progression	Missed habits cause character damage	resonates with students motivated by social accountability
Bullet Journaling	creative expression and physical documentation	Unlimited customization	High initial setup time but could have low time investment on regular use	Visual satisfaction through manual tracking and creative documentation	Allows complete flexibility. Based on users' self-discipline	attracts students who enjoy creative expression

Previous Key Findings Table (Too extensive. More suited for source analysis)