RESEARCH FINDINGS

UNIVERSITY STUDENTS USA

RESEARCH TYPE: QUALITATIVE RESEARCH

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Research Objectives

The objective of this research was to understand the perspective of university students and their multifaceted experiences at university. The objective was broken into four main goals as listed below.

1. **Identify Career Aspirations**
    - Understand the primary career aspirations of university students including their desired career roles, industries, and job preferences.
2. **Explore Career Decision-Making Factors**
    - Investigate the factors that influence university students' career decisions related to tech careers, such as salary, passion for the field, job stability, growth opportunities, and industry trends.
3. **Understand Attitudes Towards Tech Education**
    - Evaluate the students' perceptions of their current university education and whether they believe it adequately prepares them for future tech careers.
    - Examine students' perspectives on the importance of continuous upskilling for a successful tech career in the long term.
4. **Understand Pain Points & Identify Support Needs**
    - Identify the key challenges and obstacles university students face when planning their future career paths in the tech industry (selecting specializations, finding relevant opportunities, or navigating career uncertainties.)
    - Determine the resources and support services that university students would like to see offered to help with their career planning needs.

Target Audience & Context

10 undergraduate students at the University of Washington were interviewed in total.

- Aged between 18-24 years.
- 6 students interviewed identify as female and 4 students interviewed identify as male.
- 2 students interviewed are from the School of Informatics.
- 3 students interviewed are from the School of Engineering.
- 2 students interviewed are from the School of Arts and Sciences.
- 1 student interviewed is from the School of Business.
- 2 students interviewed are from the School of Computer Science.

Interviewee Demographics and Context:

- 7 out of 10 participants were 19 years of age.
- 6 out of 10 participants were of South Asian origin.

- 9 out of 10 participants are born in an American state.
- 9 out of 10 participants are located in Washington State.
    - 1 out of 10 participants is located in California.
- 7 out of 10 participants speak at least 2 languages.
- 1 out of 10 participants has a disability that requires testing accommodations.
- 8 out of 10 participants are currently employed or involved in an internship.
- 7 out of 10 participants have at least 1 parent/guardian working in the tech industry.
- 10 out of 10 participants do NOT qualify for financial aid and are financially supported by their parents.

Methodology

For this research, one-on-one interviews were conducted with all University of Washington student interviewees. All interviews were done virtually through a phone call.

Pre-Session:

- Each interviewee was contacted personally to schedule a forty-five-minute phone call interview.
- The participants were informed about the interview being very casual and only for informational purposes.

During the Session:

- Participants were welcomed and made comfortable through open conversation (5 min).
- The context and purpose of the interview was explained to each interviewee (2 min).
- A brief overview of how the interview session will be run was given (2 min).
- Each interviewee was informed of the best practices and guidelines (3 min):
    - There are no wrong answers, only diverse perspectives.
    - Each participant will be referred by “Participant #” rather than by name.
- The interview was conducted by asking pre-determined and follow-up questions (30 min).
- After the interview, each participant was thanked for their participation (3 min).

Interview Questions

Each participant was asked standard demographic questions alongside more specific questions that aligned with the four main goals of this research.

Standard Demographic

- What is your age?
- What is your gender?

- What is your race/ethnicity and where were you born?
    - Are you a first-generation American child in your family?
- What is your first language?
    - Do you speak any other languages?
- What is the highest level of education completed by your parents?
    - Are you a first-generation student?
- Do you live on-campus or off-campus?
    - How far is your current residence from the university campus?
- Do you have any accessibility needs or disabilities that require accommodations?
- Are you currently employed or involved in part-time work?
- What is your current major, field of study or intended major?
- What year are you currently in?

Goal 1: Identify Career Aspirations

Academic Performance & Learning

- How did you find interest in your field of study?
- What does a typical school week look like for you?
- What study habits and techniques do you find most effective in improving your academic performance?

Future Career

- Describe to me your future career.
- Do you have interest in any future-technologies that you hope to work with in your future career?
    - How did you first gain interest in these technologies?
- Are there any specific organization or companies you admire or aspire to work with in the tech industry? What attracts you to these companies?

Student Engagement & Involvement

- What are some activities or hobbies you enjoy during your free time?
- What factors contribute to you engaging in extracurricular activities and campus events?
- Have you participated in any internships, projects or extracurriculars that have sparked interest about tech careers?

Goal 2: Explore Career Decision-Making Factors

Career Decision-Making Factors

- What factors have influenced your career decision-making process so far?
- Do you prioritize pursuing a career that aligns with your passions and interests, or are other factors more critical to you?
- How do you seek information about potential career options, and what resources do you rely on to make informed decisions?
- Have you sought guidance or advice from mentors/industry professionals in the tech industry to help you make informed decisions about your career? If yes, how valuable/helpful has their input been?

Career Preparedness

- How prepared do you feel about your career upon graduation?
- How do internship opportunities and career development programs help you achieve greater career readiness?
- What is a concern you have about transitioning from college to the job market?

Goal 3: Understand Attitudes Towards Tech Education

Importance of Technology

- How do you perceive the demand of tech in your field of study?
- How do you stay informed and updated about the rapidly evolving technologies?
- Do you believe that tech education will enhance your job prospects or open new opportunities for you? Why?

Goal 4: Understand Pain Points & Identify Support Needs

Mental Health & Wellbeing

- What are the main stressors for you as a university student?
- How do you cope with the stress and manage your wellbeing?

Financial Matters

- Do you pay for your tuition yourself or does a parent/guardian?

Technology

- What social media platforms do you utilize the most and why?
- What are your preferences regarding online vs. in-person communication with peers and professors?

Career Guidance

- How easy is it for university students to access career guidance resources?
- Have you ever personally utilized any of the career guidance resources?
    - If so, which programs/courses and do you believe that the advice enriched your career decision-making process?
    - If not, what were some factors that inhibited you from utilizing those resources?

Participant Responses

Each participants responses are summarized in the table below.

	Goal #1	Goal #2	Goal #3	Goal #4
	- Passion for pre-medicine and interest in science from an early age. - Desire to serve underprivileged	- Prioritizes job satisfaction and positive impact on society. - Focus on aligning career with	- Believes technology is relevant in every industry, particularly in medicine.	- Stressors as a university student include heavy workload and frequent exams. - Coping strategies

Participant 1	communities through healthcare. - Fascination with the intersection of business and healthcare. - Effective study habits, including digital notetaking and time chunking.	passions and interests rather than monetary gains. - Seeks career information through networking and personal research. - Envisions a career combining healthcare and business as a top executive. - Interest in technology's relevance to healthcare and personal development.	- Stays updated on technology through social media, especially LinkedIn. - Acknowledges the potential benefits of tech education for personal hobbies.	involve social activities and prioritization. - Concerns about transitioning to the job market and imposter syndrome. - Desire for more valuable career guidance and support resources. - Parents support college finances, but cautious with spending due to long-term study plans.
Participant 2	- Interested in User Experience and Design to family influence and early passion for creative activities. - Utilizes technology for note-taking and effective study habits, such as breaks and changing environments. - Aspires to work in UX product design and software development, leaning towards product design for creativity.	- Considers pay and creative opportunities when making career decisions. - Relies on personal research and advice from relatives, seeking guidance from mentors. - Feels prepared for the future career due to valuable internship experience.	- Recognizes high demand for tech skills across industries and in UX design. - Stays informed through tech classes at university for personal growth.	- Stressors include pressure to find a job after college and lack of UX-specific classes. - Copes with stress by talking to peers and wishes for more guidance from industry professionals. - Parents support tuition, and TikTok ads are persuasive but not sponsored ones. - Prefers in-person communication for better focus during class. - Accessing career guidance resources can be challenging due to appointment availability and standard responses.
	- Inspired by father's engineering background	- Factors influencing career decisions: pay,	- Believes tech skills essential across industries	- Stressed about keeping up, managing workload

Participant 3	- Effective study habits: solo study, note-taking, review before tests - Envisions an office-based corporate job in software engineering with hardware-software integration - Attracted to AI and robotics and admires Microsoft, Apple, Netflix for good pay - Networking and communication skills need improvement	CAD and coding, job satisfaction - Prefers pay over satisfaction - Uses LinkedIn for career information - Feels somewhat unprepared for career post-graduation - Worries about job market expectations and uncertainty	- Sees high demand for tech in field of study - Stays informed through friends and social media - Will only pursue tech education if necessary, believes UW prepares well	- Coping strategies: extracurriculars, improved study schedule - Parents pay tuition, applied for scholarships - Utilizes LinkedIn for academics and social interaction - Prefers in-person over online communication with peers and professors - Career resources available but hard to find - Limited use of career guidance resources due to access issues
Participant 4	- Interested in dentistry due to healthcare interest, detailed work, and work-life balance. - Envisions owning a dentistry practice, self-employed. - Open to incorporating AI into dentistry. - Values engagement in extracurriculars for personal development and resume building.	- Influenced by family, dad's medical background. - Considers helping people and flexible hours in career decisions. - Values financial stability and job security. - Gains career insights from fraternity connections. - Feels mostly prepared for post-graduation career.	- Acknowledges importance of tech skills in industries, including dentistry. - Stays minimally informed about evolving technologies. - Believes tech education offers valuable skills for dental practice. - Sees potential in technology integration in dental care. - Emphasizes practical, hands-on learning.	- Main stressors include managing workload and maintaining balance. - Copes with stress by seeking social interactions and personal time. - Receives financial support from parents. - Prefers in-person communication, finds online learning challenging. - Values accessible and approachable career guidance resources, especially from peers.
	- YouTube videos related to robotics sparked interest in mechanical engineering.	- Influences: Financial stability, math and science orientated. - Prioritizes passion	- Sees tech skills demand in various fields. - Stays informed through social	- Stressors: Fast-paced classes, future worries. - Coping: Staying present, pushing

Participant 5	- School week: Classes, study, relaxation. - Effective study: Repetition, practice problems. - Future: Research, design; planes, cars, trains. - Interest: Robotics, self-driving cars, AI. - Admires Boeing, Microsoft because of their big name in Seattle - Limited extracurricular involvement due to schedule.	in math, science. - Career info: High school and Beyond plan, Gen St 199. - Limited guidance from mentors/industry. - Feels somewhat unprepared for job market. - Concerns: Transition to work environment.	media. - Believes tech education enhances prospects.	worries aside. - Tuition supported by parents. - Social media and email for communication. - Prefers in-person interactions. - Finds career resources somewhat accessible but intimidating.
Participant 6	- Found interest through roommate and cross between technology and people. - Typical week: Morning classes, study, hang out with friends. - Effective study: Quiet environment, no music, repetition. - Envisions future as a project manager or UX designer. - Interested in AI and flexible work time. - Admires Microsoft, Google, Amazon.	- Values helping people, seeks work-life balance. - Prioritizes financial stability and supporting family. - Gathers career info from dad, videos, guidance. - Concerns about preparedness and confidence. - Worried about losing support post-graduation.	- Sees ongoing demand for tech skills. - Stays updated through social media and peers. - Values tech education for enhanced job prospects.	- Stresses balancing academics and social life. - Coping through conversations, counsellor. - Parents support college finances. - Uses social media for connections. - Prefers in-person communication. - Values easily accessible career resources.
	- Early interest in computer science through programming classes. - Joined "Girls Who Code" for a supportive	- Prioritizes passion and balance in career. - Inspired by dad and tech hub city exposure. - Seeks mentorship from friends in tech	- Sees tech skills as essential across industries. - Stays updated through news, LinkedIn, peers. - Believes tech education	- Stressors: Short project timelines, balancing commitments. - Copes through extracurriculars, family, friends. - Balances college

Participant 7	community. - Pursuing Software Engineer career with management goals. - Interest in neural technology and fintech. - Admires Microsoft, Neurolink for tech-human connection.	industry. - Concerns about job market uncertainty.	enhances job prospects.	finances with parental support. - Utilizes Instagram, TikTok, LinkedIn for academics. - Prefers in-person communication for collaboration. - Accesses career guidance through university resources.
Participant 8	- Interest in applying computer science to non-tech fields like physics. - Balances classes, labs, and extracurriculars. - Effective study habits include repetition and understanding. - Envisions research career with computer science integration. - Interested in neural technology and material science. - Admires professors' guidance, seeks research roles.	- Values hands-on physics application. - Keeps options open due to physics' versatility. - Passion and doctorate-level research are priorities. - Parents' IT careers influenced decision-making. - Concerns about competitive academic job market.	- Sees tech skills as vital in all industries. - Stays updated through clubs, collaboration. - Tech education enhances job prospects and resume.	- Stresses about challenging physics courses. - Coping through study groups and collaboration. - Tuition supported by parents. - Prefers in-person networking and communication. - Limited access to career guidance resources in field of physics specifically. - Mixed experience with career counsellor’s expertise.
Participant 9	- Found interest in computer science through robotics and father's influence. - Organized study habits with time blocking. - Envisions a software engineering career. - Interested in innovation and	- Prioritizes future happiness, financial stability, and growth. - Interested in software engineering and product management. - Seeks insights from articles, peers, and family friends. - Feels relatively	- Stays informed through LinkedIn, social media, and news. - Believes tech education enhances job prospects.	- Stresses about career prospects and daily assignments. - Coping through time management and communication. - Tuition supported by parent. - Prefers in-person communication for engagement.

	ethical companies. - Participates in clubs for community and practical knowledge.	prepared for career transition. - Worried about the competitive job market.		- Utilizes university and department resources for career guidance.
Participant 10	- Found interest in bioengineering through exploration in college. - Considering bioengineering industry or law. - Balances busy schedule with school, Japanese minor, and HuskyAdapt. - Effective study habits involve planning and time management. - Envisions future career in bioengineering design.	- Values aligning career with passions and interests. - Considers input from family, neighbours, and peers. - Participates in extracurriculars for career readiness. - Concerned about lifestyle change after graduation.	- Perceives high demand for tech skills, especially in practical settings. - Believes tech education enhances job prospects.	- Stressed by balancing academics, research, work, and social life. - Coping strategies include journaling and engaging in Japanese. - Tuition is supported by parents. - Uses TikTok for breaks and LinkedIn for networking. - Prefers in-person communication for connections. - Utilizes university career guidance resources for advice and action plans.

Research Analysis

Goal 1: Identify Career Aspirations

- **Qualitative Analysis:**
  - Most participants have clear interests and aspirations related to specific fields such as healthcare, technology, engineering, and computer science.
  - Effective study habits across diverse courses (STEM and non-STEM) such as digital note-taking, time chunking, and repetition were emphasized in many interviews.
  - Students value the intersection of their academic pursuits with personal interests.
- **Quantitative Analysis:**
  - Passion and Interest: **7** out of **10** of participants showed a strong passion for their chosen field of study since an early age.

- Study Habits: **9** out of **10** of participants mentioned using effective study techniques such as digital notetaking and time chunking to improve their academic performance in STEM and non-STEM courses.
- Admired Industries: **4** out of **10** of participants showed interest in technology-related careers and were inspired by companies like Microsoft, Apple, Google and Amazon for their impact and innovation. All 4 participants expressed admiration that stems from living in Seattle where there is a large tech culture and constant inspirational exposure to companies like Microsoft and Amazon.

Researcher's Observations:

- The data on effective study habits may not be reflective of the entire student population at the University of Washington since all participants completed high school education in Washington State. Furthermore, almost all participants either attended Kent school district, Bellevue school district or Issaquah school district. It may be that similar study habits were encouraged across all school districts. A greater number of out of state students need to be research to reach a conclusion.
- Since all participants either belong to Washington or California, the data may not reflect the interest in tech companies of the entire student population at the University of Washington. Participants may have a bias since they are constantly exposed to the tech industry and many have at least one parent employed in a tech related job.

Goal 2: Explore Career Decision-Making Factors

- **Qualitative Analysis:**
  - Participants prioritize job satisfaction, positive societal impact, and aligning careers with personal passions.
  - Most seek career information through various sources like personal research, networking, and guidance from relatives/mentors.
  - A significant number express interest in combining their field of study with technology and business.
- **Quantitative Analysis:**
  - Job Satisfaction vs. Pay: **6** out of **10** of participants prioritize job satisfaction and societal impact over monetary gains.
  - Career Decision Factors: **7** out of **10** of participants consider job satisfaction, alignment with passions, and societal impact when making career decisions.
  - Preparedness for Future: **6** out of **10** of participants feel somewhat prepared for their post-graduation careers because of the experience they have gained from internships, extra-curricular activities and other outside of school opportunities. **4** out of **10** participants feel underprepared for their post-graduation careers due to the lack of human skills education in University of Washington sponsored courses.

Researcher's Observations:

- The data on job satisfaction vs. pay may not be representative of the entire student population at the University of Washington. A majority of the participants personally believe that they belong to privileged families due to which they had the opportunity to prioritize job satisfaction over pay. Similarly, it is important to note that all 10 participants do not qualify for financial aid per the financial aid requirements.

Goal 3: Understand Attitudes Towards Tech Education

- **Qualitative Analysis:**
  - Most participants recognize the relevance of technology in various industries and their respective fields.
  - Participants use social media platforms like LinkedIn, TikTok, Instagram and other online resources to stay informed about tech trends and internship/job opportunities. Many participants expressed that they are more receptive to advertisements on social media platforms like TikTok and Instagram where their peers or influencers are able to share about honest experiences and feedback.
  - Participants perceive tech education as a valuable asset for personal and career growth. Participants expressed that tech education can only boost an individuals resume and help them stand out during the hiring process.
- **Quantitative Analysis:**
  - Tech Skills Demand: **9** out of **10** of participants acknowledge the high demand for tech skills across different industries.
  - Tech Education: **8** out of **10** of participants believe that tech education enhances job prospects by boosting an individual's resume.

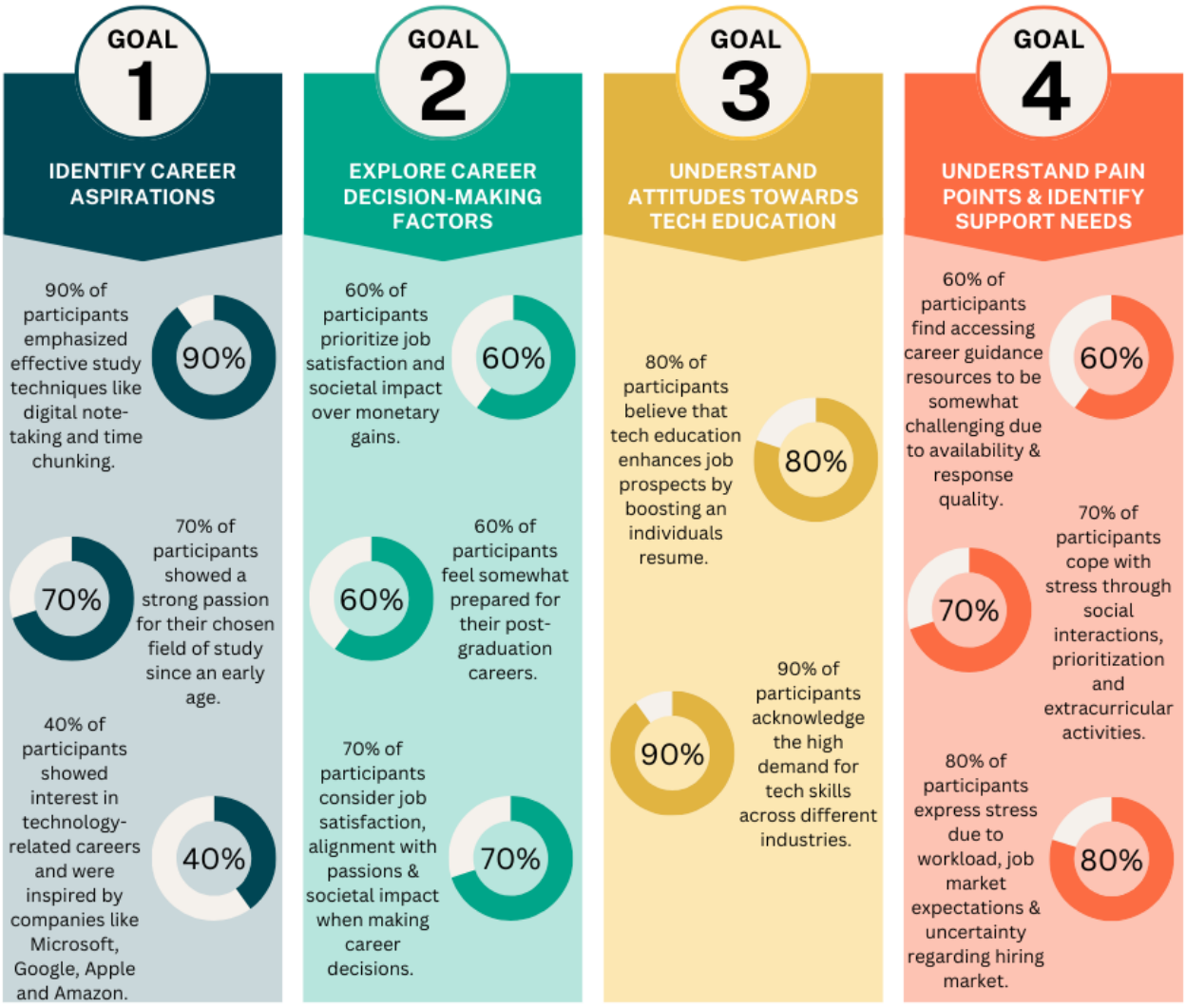
Goal 4: Understand Pain Points & Identify Support Needs

- **Qualitative Analysis:**
  - Common stressors include heavy course workload, transitioning to the job market, and concerns about the future hiring market. Concerns about the unstable hiring market were mostly expressed by Computer Science, Engineering and Informatics students. There is a common fear surrounding the large number of layoffs and hiring freezes that have occurred recently in the tech industry.
  - Coping strategies include social interactions, prioritization, extracurricular activities, and talking to peers.
  - Access to valuable career guidance resources is challenging for some participants due to availability and standard responses.
- **Quantitative Analysis:**
  - Stressors: **8** out of **10** participants express stress due to school course and extracurricular workload, job market expectations, and future uncertainty about hiring in the tech market.
  - Coping Strategies: **7** out of **10** participants cope with stress through social interactions, prioritization, and extracurricular activities.

- Career Guidance Resources: **6** out of **10** participants strongly believe that accessing career guidance resources is challenging due to availability and response quality. **4** out of **10** participants strongly felt that career guidance resources were extremely easy to access on at the University of Washington and that the quality of guidance provided was resourceful.
- Online vs. In-Person Education: **9** out of **10** participants strongly prefer in-person education over online education. Many participants expressed frustrations like lack of collaboration, difficulty focusing and lack of immediate support during their online schooling period. All participants interviewed have experienced online and in-person education in high school and/or college.

Researcher's Observations:

- The data on career guidance resources may represent such extreme opinions because participants who believe accessing career guidance resources is simple, belong to a program with multiple guidance opportunities. Such programs include computer science and engineering. Other programs however, like business and science, lack career guidance resources due to the large number of students admitted into the program.



Researcher's Recommendations

Based on the research conducted, here are 2-3 suggestions for SkillUp Online.

1. **Social Media Marketing:** Several participants have conveyed a stronger inclination to interact with advertisements encountered on Instagram and TikTok. They hold the view that showcasing success stories and relatable experiences of product users significantly heightens their responsiveness. In light of this, it could be beneficial for SkillUp to expand its marketing endeavors onto social media platforms like Instagram and TikTok. These platforms offer an ideal avenue for the target audience to access candid feedback from previous users and influencers, thereby fostering a sense of authenticity and credibility.

2. **Addressing online education concerns:** Several participants have shared their experiences of encountering academic and social challenges during online schooling. Many participants believe that the absence of collaborative opportunities and immediate assistance hindered their ability to receive effective education. To address this concern, SkillUp might consider adapting their online courses by incorporating discussion boards that facilitate whole-class interaction. For example, many universities use the platform Canvas which seamlessly integrates a comprehensive system for class discussions. This platform allows for dynamic and interactive communication among peers. On Canvas, these discussions can serve as assignments for evaluation purposes or as open forums for sharing insights. Incorporating a similar approach at SkillUp could potentially decrease the communication barriers that often arise during online learning, thus promoting a more engaging and productive educational experience.

3. **Stress Management & Well-being Resources:** Given my own research, university students value mental health and well-being resources greatly. Thus, SkillUp should consider developing resources to address stress management and well-being, recognizing the common challenges faced by students, such as heavy workloads. As a potential solution, implementing a system wherein students are prompted with a reminder to take a break, stretch, and hydrate every 45 minutes could be immensely beneficial. This proactive approach encourages students to actively manage their well-being through mindful intervals. Given that numerous participants have voiced their struggle with finding time for self-care, this resource stands as a purposeful mechanism, deliberately prompting busy students to prioritize their well-being. By incorporating such a feature, SkillUp demonstrates a genuine commitment to the holistic development and mental health of its learners.