" **Design a** study group matchmaking platform **to enable** college students **in** test preparation **to** find compatible study partners **with** similar goals**. "**

1. Problem definition

- **Lack of Motivation:** Many students may find it challenging to maintain consistent motivation to excel in their academics. This lack of motivation can lead to procrastination, lower academic performance, and a sense of disengagement from their coursework.

- **Difficulty in Maintaining Focus:** Students may have trouble concentrating on their studies, especially with the numerous distractions and competing interests they encounter in college or university life.

- **Isolation and Lack of Peer Support:** While students desire peer input and collaboration, they might struggle to find or establish meaningful connections with fellow students who share their academic goals and interests.

- **Productivity Issues:** Without adequate motivation, focus, and peer support, students may not be as productive as they could be in their studies. This can lead to missed deadlines and subpar academic performance.

- **Limited Opportunities for Improvement:** The absence of a supportive academic community can hinder students' opportunities for growth and improvement in their coursework.

📌 In essence, the problem revolves around the challenge of balancing academic pursuits with motivation, focus, and peer engagement, ultimately impacting the overall academic success and experience of college and university students. Addressing this problem involves finding solutions to enhance motivation, improve focus, and foster a supportive peer network that can help students achieve their academic goals effectively.
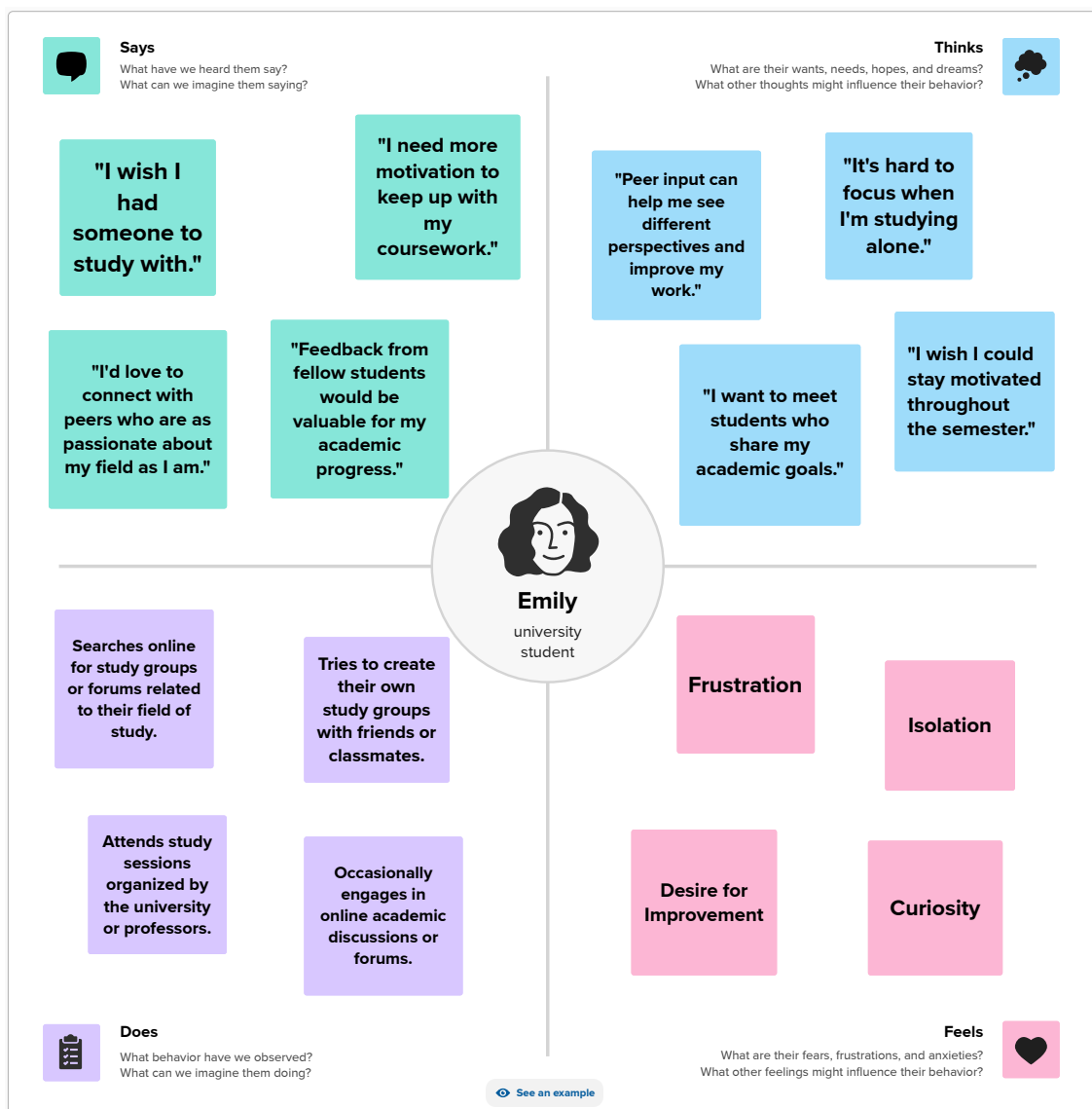
2. Target users

College and University Students: These are the primary users who are experiencing the challenges related to motivation, focus, and the desire for peer support in their academic journeys. They could be undergraduates, graduate students, or learners pursuing various forms of higher education.

3. User scenario

Emily's biology midterm is looming, and she realizes that studying with a like-minded partner could be more effective. She hears about "StudyBuddy," a new platform for college students preparing for exams, promising to connect them with suitable study buddies. Intrigued, Emily visits StudyBuddy's website, signs up, and shares her major, study habits, and her biology exam details. Emily completes her profile by specifying her study preferences, like study times, location, and topics she wants to focus on. She clicks "Find a Study Buddy." StudyBuddy uses her info to find potential study partners prepping for the same biology exam. Emily reviews profiles of potential study partners, checking their majors, habits, and availability. She spots Alex, who shares her study schedule and biology passion. She sends a message expressing her interest. Emily and Alex meet virtually on StudyBuddy, study together, discuss topics, and quiz each other. StudyBuddy helps Emily and Alex monitor their progress, set study goals, and use integrated tools for better collaboration. Thanks to their productive study sessions, Emily and Alex both ace their biology midterm, proving StudyBuddy's effectiveness.

4. Empathy map

Says
What have we heard them say?
What can we imagine them saying?

Thinks
What are their wants, needs, hopes, and dreams?
What other thoughts might influence their behavior?

"I wish I had someone to study with."

"I need more motivation to keep up with my coursework."

"I'd love to connect with peers who are as passionate about my field as I am."

"Feedback from fellow students would be valuable for my academic progress."

"Peer input can help me see different perspectives and improve my work."

"It's hard to focus when I'm studying alone."

"I want to meet students who share my academic goals."

"I wish I could stay motivated throughout the semester."

Emily
university student

Searches online for study groups or forums related to their field of study.

Tries to create their own study groups with friends or classmates.

Attends study sessions organized by the university or professors.

Occasionally engages in online academic discussions or forums.

Frustration

Isolation

Desire for Improvement

Curiosity

Does
What behavior have we observed?
What can we imagine them doing?

Feels
What are their fears, frustrations, and anxieties?
What other feelings might influence their behavior?

See an example

5. POV

User	Need	Insight
Collage and university students	- Motivation, confidence, connection, and anxiety reduction while preparing for exams or assignments. - Spend time studying with students with similar goals	College and university students want to be more motivated and focused on their academics while spending time and engaging with other students who share their goals, in order to push themselves, be more productive, and receive peer input so they can improve their work.

6. HMW

- How might we foster a sense of motivation and focus among college and university students in their academic pursuits?

- How might we create a supportive community of like-minded students to help each other achieve their academic goals?

- How might we leverage peer input and collaboration to enhance the productivity and learning outcomes of college students?

- How might we design a platform or system that encourages students to set and achieve academic milestones while engaging with their peers?

- How might we facilitate meaningful connections between students who share similar academic goals and interests to foster a sense of community and accountability?

- How might we provide students with the tools and resources they need to better manage their time and prioritize their academic responsibilities?

- HMW use technology and digital platforms to create an environment where students can connect, collaborate, and motivate each other effectively in their academic pursuits?

7. Concept Justification and Potential Strengths

The concept of creating a platform or system to help college and university students enhance their motivation, focus, and engagement with like-minded peers in their academic pursuits has several potential strengths that suggest it could work:

- **Fulfilling Unmet Needs:** The concept directly addresses the needs and desires expressed by college and university students in your insights. It seeks to provide solutions for their common challenges, such as motivation, focus, and the desire for peer support.

- **Peer Learning and Accountability**: By facilitating connections with peers who share similar academic goals, the concept taps into the power of peer learning and accountability. Collaborating with others who have similar ambitions can motivate students to perform better.

- **Motivation through Gamification:** If designed with gamification elements, the concept can make the academic experience more engaging and motivating for students. Gamification can provide incentives, rewards, and a sense of achievement that drives students to stay on track.

- **Technology Integration:** Leveraging technology and digital platforms aligns with the preferences of today's college students, who are often tech-savvy and comfortable with online interactions. Technology can also provide tools for effective collaboration and study.

- **Community Building:** The concept fosters a sense of community among students, which can combat feelings of isolation and disconnection often experienced in higher education. A supportive community can boost overall well-being and academic performance.

- **Data-Driven Improvements**: With data collection and analysis, the platform can continually refine its matching algorithms and features based on user feedback and behavior, making it increasingly effective over time.

- **Scalability:** The concept has the potential for scalability, reaching a broad audience of college and university students with diverse academic interests and goals.


📌 However, the success of such a platform would depend on several factors, including effective design, user-friendly interface, security, and the ability to create a vibrant and active user community. Conducting user research and testing would be essential to fine-tune the concept and meet the specific needs of your target audience.

8. Survey results

I created a small survey to help me conduct information about users' wants and needs and their studying habits. These are some of the results:

How important is it for you to have study partners who share similar academic goals and interests? (1 = Not Important, 5 = Very Important)

4 responses
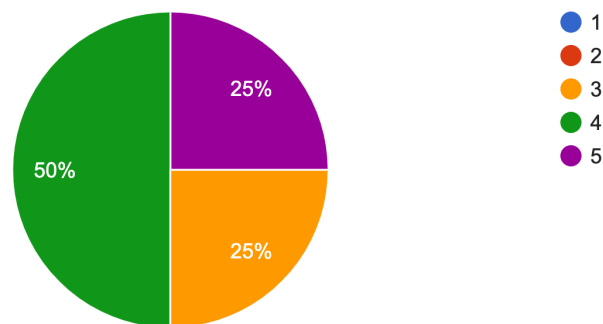
Half of the participants find having study partners who share similar academic goals and interest important.

How do you think being part of a study group with like-minded peers would impact your motivation and productivity?

6 responses

Yes

it will make me more productive

It would motivate me more
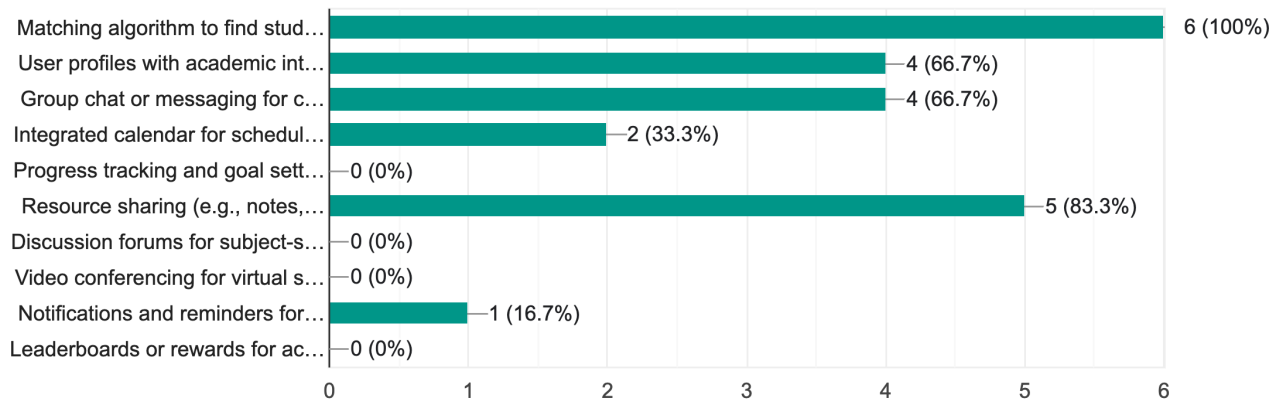
We could help each other

i will work more

I will be more productive if I am around people that study

The participants think that they will be overall more productive if they are in a study group with like-minded peers.

What features or functions would you like to see on such a platform? (Select all that apply)

6 responses

Feature	Value
Matching algorithm to find stud…	6 (100%)
User profiles with academic int…	4 (66.7%)
Group chat or messaging for c…	4 (66.7%)
Integrated calendar for schedul…	2 (33.3%)
Progress tracking and goal sett…	0 (0%)
Resource sharing (e.g., notes,…	5 (83.3%)
Discussion forums for subject-s…	0 (0%)
Video conferencing for virtual s…	0 (0%)
Notifications and reminders for…	1 (16.7%)
Leaderboards or rewards for ac…	0 (0%)

Most of the people want to see Matching algorithms to find study partners with similar goals, User profiles with academic interests and study preferences, Resource sharing and Group chat.

Would you be interested in using an online platform that helps you find study partners with similar academic goals and interests?

6 responses

- Yes
- No

100%
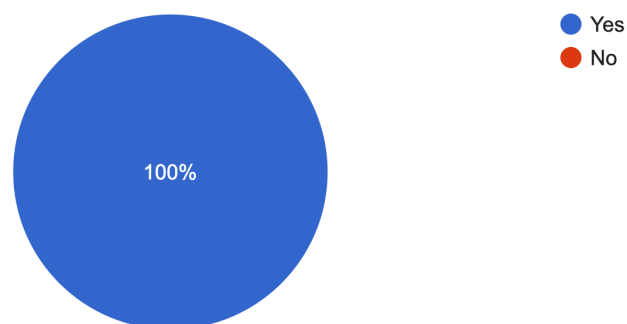
And all of the participants would join online platform that potentially will help them find study partners.

With my online research and survey I created the person below:

Emily

Age: 19
Education : **Student at Fontys**
Location: **Einhoven**

Bio

She is determined to achieve top-notch grades and make the most of her university experience. However, like many students, she occasionally face challenges with motivation and focus during my study sessions. While she enjoy coding and problem-solving, she recognize the need for a supportive environment to stay on track. She always on the lookout for productivity apps and tools to enhance her time management and study routines. She has been missing in her academic journey. Connecting with fellow students who are just as dedicated as she is and tapping into their insights could be a game-changer.

Wants/Needs

- Wants a more engaging and collaborative approach to studying.
- Seeks opportunities to connect with like-minded peers who share her passion
- Wants access to effective study tools and resources to improve academic performance.

Frustrations

- Struggles with motivation and focus, especially during long study sessions.
- Often feels isolated when studying alone for extended periods.
- Finds it challenging to seek peer input and insights on coursework.
- Occasionally procrastinates due to a lack of external motivation.

9. Secondary research

- What existing platforms or services are currently available that aim to improve motivation, focus, and peer engagement among college and university students in their academic pursuits?

Keith J. Topping k.j.topping@dundee.ac.uk (2005) Trends in Peer Learning, Educational Psychology, 25:6, 631-645, DOI: **10.1080/01443410500345172**

- The article reviews developments in peer learning from 1981 to 2006, with a primary focus on peer tutoring, cooperative learning, and peer assessment. It explores various types and definitions of peer learning, discusses implementation challenges and their impact on effectiveness and cost-effectiveness.

https://www.mooc.org/

- Massive Open Online Courses (MOOCs) are free online courses available for anyone to enroll. MOOCs provide an affordable and flexible way to learn new skills, advance your career and deliver quality educational experiences at scale. Millions of people around the world use MOOCs to learn for a variety of reasons, including: career development, changing careers, college preparations, supplemental learning, lifelong learning, corporate eLearning & training, and more.

- How has gamification been used in the field of education to enhance motivation and engagement among students?

    Measles, S. & Abu-Dawood, S. (2015). Gamification: Game –Based Methods and Strategies to Increase Engagement and Motivation within an eLearning Environment. In D. Rutledge & D. Slykhuis (Eds.), *Proceedings of SITE 2015--Society for Information Technology & Teacher Education International Conference* (pp. 809-814). Las Vegas, NV, United States: Association for the Advancement of Computing in Education (AACE). Retrieved October 3, 2023 from **https://www.learntechlib.org/primary/p/150094/**.

    - Gamification integrates game elements into educational content in order to promote motivation and engagement. Before exploring gamification, games need to be dissected in order to better understand game elements which are used to create a gamified eLearning environment. Games have been used in education in order to engage and motivate learners. In order to fully understand how gamification ties into games and learning, this paper will first explore games for learning and how they affect engagement and motivation.

    Rula Al-Azawi, Fatma Al-Faliti, Mazin Al-Blushi, August 2016, International Journal of Innovation, Management and Technology, Vol. 7, No. 4, Educational Gamification Vs. Game Based Learning: Comparative Study, DOI: **10.18178/ijimt.2016.7.4.659**

    - This paper discusses the use of computer games to motivate learners in education. It explores Game-Based Learning (GBL), educational games, and Gamification. The paper highlights how games enhance enjoyment, creativity, and student discussions about learning. It introduces Game-

Based Learning and Gamification as innovative teaching methods for learners of all ages.

Gamarra, M., Dominguez, A., Velazquez, J., & Páez, H. (2021). A gamification strategy in engineering education—A case study on motivation and engagement. *Computer Applications in Engineering Education*, 1-10. https://doi.org/10.1002/cae.22466

- This study recognizes the importance of updating traditional teaching methods in higher education to encourage student participation. It introduces a gamification strategy applied in various courses, including both traditional and remote settings. The strategy was validated through student surveys, revealing that it successfully boosted student motivation and engagement, resulting in increased participation in academic activities.

- What research or studies highlight the benefits of peer learning and collaboration in improving academic performance and student satisfaction in higher education?

Saijing Zheng, Mary Beth Rosson, Patrick C. Shih, and John M. Carroll. 2015. Understanding Student Motivation, Behaviors and Perceptions in MOOCs. In Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing (CSCW '15). Association for Computing Machinery, New York, NY, USA, 1882–1895. https://doi.org/10.1145/2675133.2675217

- This paper examines the challenges and opportunities presented by Massive Open Online Courses (MOOCs) in education. High dropout rates in MOOCs highlight the need to understand student needs better. Through in-depth interviews, the study explores student motivations, learning experiences, and factors affecting retention. The research identifies key learning motivations and patterns and proposes that addressing retention should be seen as both a problem and an opportunity in MOOCs.

- What are the current trends in the adoption of technology and digital platforms by college and university students for academic purposes? How do students typically use technology to enhance their learning experiences?

Abuhassna, H., Al-Rahmi, W.M., Yahya, N. *et al.* Development of a new model on utilizing online learning platforms to improve students' academic achievements and satisfaction. *Int J Educ Technol High Educ* 17, 38 (2020).https://doi.org/10.1186/s41239-020-00216-z

- This research explores factors affecting students' academic performance and satisfaction in online learning. It combines Transactional Distance Theory (TDT) and Bloom's Taxonomy Theory (BTT) and involves 243 higher education students. Eleven factors are identified that impact academic achievement and satisfaction. The study finds that students' background, experience, collaborations, interactions, and autonomy positively influence satisfaction, while application, remembering, understanding, analyzing, and satisfaction are associated with improved academic achievements. The research provides insights for educational institutions implementing online learning platforms.

Manca, S., & Ranieri, M. (2013). Is it a tool suitable for learning? A critical review of the literature on Facebook as a technology-enhanced learning environment. *Journal of Computer Assisted Learning*, 29(6), 487-504. https://doi.org/10.1111/jcal.12007

- This article examines the educational value of Facebook as a learning environment. It acknowledges the differing opinions on its pedagogical benefits and challenges. The study reviews 23 relevant empirical articles from peer-reviewed journals, analyzing their findings. The results indicate that Facebook's pedagogical potential has been partially realized, but obstacles such as institutional, teacher, student pedagogies, and cultural factors remain. The article concludes with implications and suggestions for future research.