

## SUPPORTING STUDENTS TO CULTIVATE INTRINSIC MOTIVATION FOR UNIVERSITY ONLINE CLASSES

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### **Abstract**

The transition to online education in recent years has presented both opportunities and challenges for students in higher education. One critical aspect of successful online learning is fostering intrinsic motivation among students, as it plays a vital role in driving engagement, persistence, and academic achievement. This study explores the significance of supporting students to build their intrinsic motivation within the context of university online classes. When students possess a high level of intrinsic motivation, they exhibit a greater sense of autonomy, initiative, and mastery in their learning experiences. Online classes, however, can pose unique barriers to fostering intrinsic motivation due to the absence of face-to-face interaction, decreased social connectedness, and limited opportunities for immediate feedback. To address these challenges, educators and institutions must implement strategies to support students in cultivating and sustaining their intrinsic motivation throughout online learning journeys. The study employs and combines content analysis with a questionnaire-based quantitative analysis, which allows researchers to gather rich insights from textual data while also obtaining numerical data for statistical analysis. This integrated method allows for a more comprehensive understanding of the research topic, capturing both qualitative and quantitative aspects, and enhancing the validity and reliability of the findings. This study highlights several effective approaches to help build one's own intrinsic motivation. By employing strategies that create meaningful learning environments, foster autonomy, cultivate a supportive community, provide constructive feedback, and promote intrinsic rewards, educators and institutions can empower students to develop a strong internal drive for their online learning endeavors.

**Keywords:** intrinsic motivation, autonomy, persistence, strategies, online classes, university students.

### **Introduction**

Intrinsic motivation refers to engaging in an activity or pursuing a goal for its own sake, driven by internal factors rather than external rewards or pressures. It involves finding personal satisfaction, enjoyment, and fulfillment in the process of engaging with an activity or pursuing a goal. Unlike extrinsic motivation, which relies on external incentives like money, recognition, or praise, intrinsic motivation is derived from within an individual. It is fueled by a genuine interest, curiosity, or passion for the activity itself. People who are intrinsically motivated are driven by

their own internal desires, values, and aspirations. Intrinsic motivation, the natural inclination to actively pursue new experiences and challenges, expand one's abilities, explore, and acquire knowledge, exemplifies the remarkable optimistic aspect of human nature (Ryan & Deci 2000). Motivation serves as the driving factor behind human performance, originating from various sources such as physiological or psychological needs, cognitive processes, or emotional states (Baumeister, 2016). Intrinsic motivation thrives when individuals have a sense of autonomy or control over their actions and choices. They feel empowered to make decisions and direct their own behavior. Intrinsic motivation often arises from the desire to improve skills, develop expertise, and achieve a sense of mastery. The process of learning, growing, and becoming more proficient in a particular area can be inherently rewarding. Intrinsic motivation is closely tied to genuine interest and enjoyment in an activity. When individuals find an activity inherently interesting, stimulating, or enjoyable, they are more likely to engage in it willingly and persistently (Deci & Ryan 2013). Engaging in activities that align with personal values, beliefs, or a greater sense of purpose can fuel intrinsic motivation. When individuals perceive their actions as meaningful and contributing to something larger than themselves, they are more likely to be intrinsically motivated. Intrinsic motivation often emerges when individuals experience a state of flow—a state of deep concentration and immersion in an activity where time seems to fly by. Flow is characterized by a perfect balance between challenge and skill, and it can be deeply rewarding and intrinsically motivating. The sense of accomplishment, personal growth, and satisfaction derived from engaging in an activity or achieving a goal can be intrinsically motivating (Rowley 1996). The process itself becomes a source of fulfillment and gratification. Intrinsic motivation has several benefits. It leads to greater persistence, effort, and creativity in tasks, as individuals are driven by their own internal desires rather than relying on external rewards or pressures. It fosters a sense of enjoyment and well-being, promoting psychological and emotional well-being (French et al. 2001). It also enhances intrinsic satisfaction, which can lead to long-term engagement and a sustained commitment to activities or goals. To nurture intrinsic motivation, it is important to create environments that support autonomy, provide opportunities for mastery, foster curiosity, and emphasize the intrinsic rewards of an activity (Deci & Ryan 2016). Offering choice, promoting a sense of purpose, and providing constructive feedback can also enhance intrinsic motivation. This research emphasizes various successful methods that can be utilized to enhance an individual's intrinsic motivation. By implementing specific strategies that establish meaningful learning environments, encourage personal autonomy, foster a supportive community, offer constructive feedback, and promote intrinsic rewards, educators and institutions can empower students to cultivate a powerful internal drive for their online learning experiences. The study identifies several effective approaches that can be employed to facilitate the development of intrinsic motivation in learners. First and foremost, creating meaningful learning environments is crucial. This involves designing online courses and educational platforms that engage students through relevant and practical content, stimulating their curiosity and desire to explore further. When learners perceive the value and applicability of what they are studying, it enhances their motivation to actively participate and invest in their learning process.

Another important aspect is fostering autonomy. Giving students a sense of control and independence over their learning journey can significantly boost their intrinsic motivation. This can be achieved by providing learners with choices and opportunities to make decisions related to their coursework, such as selecting topics for projects or designing their study schedules. By allowing students to take ownership of their learning, they feel more invested and driven to succeed. Moreover, cultivating a supportive community is vital in motivating learners. Online learning can sometimes be isolating, so creating avenues for collaboration and interaction among students can foster a sense of belonging and connection. Platforms like discussion forums, group projects, or virtual study groups enable learners to engage with their peers, share ideas, and receive support. Feeling part of a community of learners encourages motivation, as students gain a sense of collective achievement and receive encouragement from their peers. Additionally, providing constructive feedback is essential in nurturing intrinsic motivation. Timely and specific feedback helps learners understand their progress, identify areas for improvement, and recognize their accomplishments. When students receive guidance that is constructive and supportive, it reinforces their belief in their abilities and encourages them to persist and strive for further growth. Lastly, promoting intrinsic rewards plays a crucial role in motivating learners. Intrinsic rewards are the internal sense of satisfaction and accomplishment that arise from the learning process itself. Encouraging students to set personal goals, celebrate milestones, and acknowledge their progress can enhance their intrinsic motivation. Recognizing their efforts and achievements fosters a positive learning experience and reinforces their internal drive to continue learning and growing. By implementing these approaches, educators and institutions can empower students to develop a strong internal motivation for their online learning endeavors. Creating meaningful learning environments, fostering autonomy, cultivating a supportive community, providing constructive feedback, and promoting intrinsic rewards collectively contribute to building students' intrinsic motivation, resulting in a more engaging, fulfilling, and successful online learning experience.

## Methodology

A method that combines content analysis and quantitative analysis via a questionnaire can be a powerful approach for studying and understanding textual data while also gathering numerical data to measure specific variables of interest. This combined method allows researchers to gain deeper insights into the content while also quantifying patterns and trends. A literature review content analysis involves systematically analyzing and summarizing the content of academic studies within a particular field or research topic (Cho & Lee 2014). It aims to identify key themes, concepts, methodologies, and findings from existing literature to gain a comprehensive understanding of the current state of knowledge and identify gaps or areas for further research. The study identified relevant literature and conducted a comprehensive search of academic databases, scholarly journals, conference proceedings, and relevant sources to identify studies that are pertinent to the research questions. The study excluded studies that do not align with research objective or are outside the scope of review. The methodology involved analyzing the extracted data to identify common themes, patterns, or trends across the selected studies and looking for

similarities and differences in the research objectives, methodologies, and findings. The study synthesized the data by organizing the information into coherent categories or subtopics, and identified any gaps or inconsistencies in the literature. The study entails a comprehensive literature review that presents the findings of content analysis and provides a balanced and critical analysis of the existing literature, highlighting both the strengths and weaknesses of the studies reviewed. Based on the findings from the content analysis, the researchers designed a questionnaire that captures the variables identified and measured in the content and conducted a rigorous content analysis of academic studies within chosen research field.

## Results and Discussion

This research involved surveying a group of students from various Turkish universities to gather their opinions on their motivation levels during online education. The study aimed to determine the sources of their motivation, identify the factors influencing it, and explore potential strategies to enhance student motivation. A total of 713 students took part in the study, with 26.5% being male and 73.5% female. The majority of participants (65.9%) were Turkish students, while the remaining 34.1% were foreigners. The students were categorized based on their academic year, with the highest proportion being first-year students (53.8%), followed by second-year students (23.3%), fourth-year students (17.0%), and finally third-year students (5.9%). The study also revealed that 53.9% of the participants were from the humanities college, while 46.1% belonged to the science college, as indicated in Table 1.

**Table 1.** Socio-demographic profile of the participants (n=713).

| Variable             |             | Frequency | Percent |
|----------------------|-------------|-----------|---------|
| <b>Gender</b>        | Male        | 189       | 26.5%   |
|                      | Female      | 524       | 73.5%   |
| <b>Nationality</b>   | Turkish     | 470       | 65.9%   |
|                      | Non-Turkish | 243       | 34.1%   |
| <b>Academic year</b> | First       | 384       | 53.8%   |
|                      | Second      | 166       | 23.3%   |
|                      | Third       | 42        | 5.9%    |
|                      | Fourth      | 121       | 17.0%   |
| <b>College</b>       | Science     | 329       | 46.1%   |
|                      | Social      | 384       | 53.9%   |

During their university experience, students encounter numerous challenges and hurdles. The findings of the study revealed that the most significant challenge, affecting 47.4% of students, is the loss of motivation. Additionally, Figure 1 illustrates various other difficulties and obstacles faced by students. It is anticipated that this percentage would rise under circumstances such as the implementation of online systems, as witnessed during the COVID-19 pandemic, as well as after the recent earthquake in Turkey, (Elhadary et al. 2020), (Elhaty & Elhadary 2020).

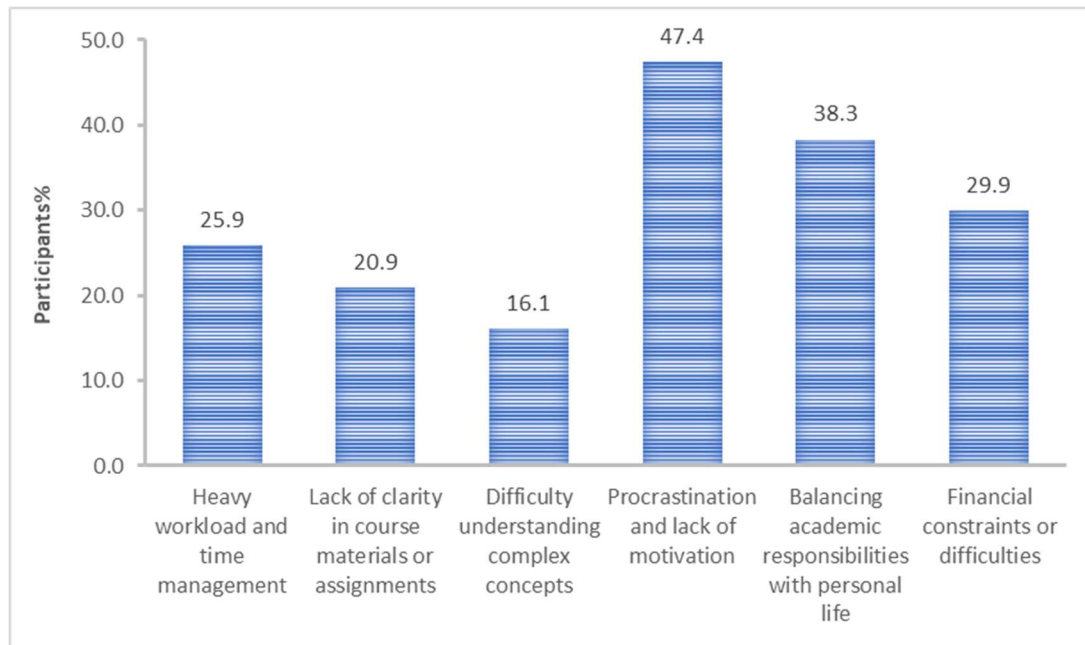


Figure 1. What are the main obstacles or difficulties you face in your academic journey?

One possible explanation for the decline in students' motivation could be the absence of a sense of support and empowerment from their universities. According to the study findings, 29.3% of the participating students reported not feeling this support, while 30.2% expressed uncertainty about its existence. In contrast, a small percentage (5.9%) acknowledged strong support from the university, and approximately one-third of the students (34.6%) admitted to experiencing some level of support from their academic institutions, as depicted in Figure 2. It is worthy to note here the study discussed in detail that to optimize motivation, a balance between intrinsic and extrinsic factors is often recommended. By fostering intrinsic motivation through autonomy, mastery, purpose, and enjoyment, and using extrinsic motivators strategically and sparingly, it is possible to create an environment that supports sustained engagement, personal growth, and overall well-being.

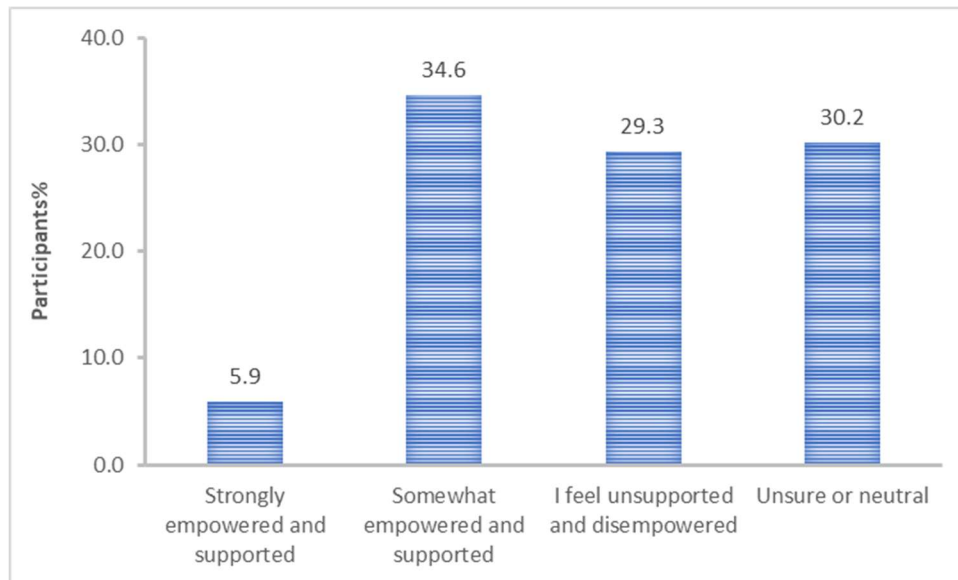


Figure 2. Do you feel empowered and supported by your university?

When questioned about the origins or catalysts of their motivation, only a minimal proportion of students (3.5%) attributed it solely to external factors. On the other hand, 32.0% of the students indicated that their motivation stemmed from self-development. The largest percentage of study participants, however, believed that their motivation originated from a combination of self-development and external factors, as depicted in Figure 3. The study holds when individuals are intrinsically motivated to learn and expand their knowledge, they are more likely to engage in activities that promote mind growth. This intrinsic motivation fuels their curiosity, persistence, and effort in exploring new ideas, solving complex problems, and acquiring new skills. Intrinsic motivation plays a crucial role in promoting lifelong learning and continuous personal development. For more details on self-development, refer to Section Mind Growth.

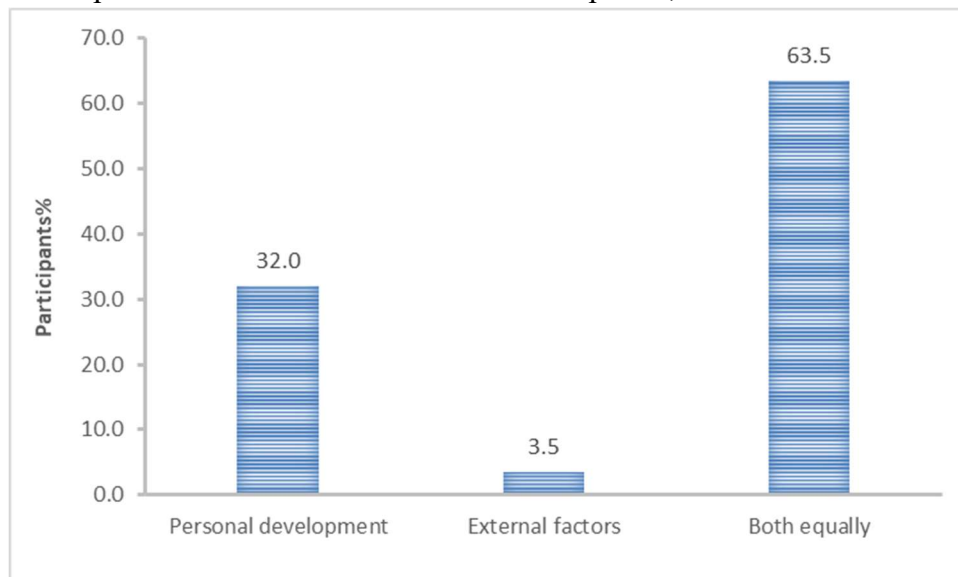


Figure 3. Are your motives more focused on personal development or external factors?

The study participants generally held a negative perception of online education, as indicated in Table 2. It should be noted that some students experienced online education both at the university during the COVID-19 pandemic and in schools after the earthquake, (Elhaty & Elhadary 2023). Only about a quarter of the students (25.4%) reported finding enjoyment and benefit in online lessons, while almost half (47.4%) expressed the opposite sentiment. Around a third of students (31.3%) believed they achieved their goals through online education, whereas 42.5% held a contrary belief. For more details on enjoyment and fun factors in learning, refer to Section Fostering Intrinsic Motivation.

One significant factor contributing to the negative perception of online education was the limited participation in activities. While 23% of students felt that online education provided them with this opportunity, 50.1% found it challenging to participate in this educational format. Interestingly, a similar group of students (28.5%) who held a positive view of online education believed it stimulated their curiosity, while 49.9% held an opposing view, often coinciding with a negative perception. The literature review discussed in the study indicated that to foster intrinsic motivation through purpose, it's essential to connect activities or goals to a larger context or vision. There is a need to help individuals understand the impact and value of their contributions, and how their efforts align with their own values or the values of the organization or community. Educators should clearly communicate the purpose behind the tasks or projects and how they contribute to a greater goal or societal benefit.

Regarding the acquisition of useful experiences, 26.4% of students felt that online education provided them with such experiences, whereas 47.7% held an opposing view. Particularly, the lack of practical skills posed a significant drawback to online education, with difficulty in compensating for these skills and potential implications for students' future careers, particularly those in practical fields, (Elhaty et al. 2020). Overall, intrinsic motivation taps into the innate human drive to seek personal growth, self-determination (Vallerand et al. 1992), and meaningful experiences, ultimately leading to a more fulfilling and satisfying engagement with activities and goals.

Moreover, 51.7% of students did not believe that online education helped them develop their skills, while 27.5% felt it contributed to their skill development. However, there was an increase in the number of students (37.3%) who believed that online education aided them in acquiring new abilities and knowledge, with a decrease (38.9%) in those holding an opposing view. This shift may be attributed to students gaining experience in online education, including familiarity with programs, applications, and evaluation methods.

In terms of providing constructive feedback, about a third of students (33.1%) believed that the online system allowed them to do so, while 44.4% disagreed. Similarly, approximately 28.4% of students agreed that this mode of education fostered a growth-oriented environment, while 47.2% held a contrary belief. Additionally, 34.9% of students found attending online lectures meaningful and beneficial, while 38.8% held an opposing view. This might be due to the availability of recorded lectures on the university's website, allowing students to access them at any time without limitations on the number of views. The strict enforcement of attendance and absence policies could discourage some students from attending lectures and recognizing their importance. A strong

online community can enhance motivation by fostering a sense of belonging and creating an environment that encourages active participation and engagement. For more details on self-development, refer to Section Fostering intrinsic motivation for online social science students.

This study aimed to investigate the internal and external factors that can influence student motivation. The findings revealed that a significant portion of students (62.7%) set academic goals for themselves, with 70.1% recognizing that setting specific and challenging goals contributes to enhancing their self-motivation. Moreover, 68.5% of students acknowledged that establishing long-term goals and aspirations can shape their self-motivation and guide their decision-making throughout their university journey. The study contends that autonomy entails granting individuals the freedom and authority to exercise control over their actions, choices, and objectives, refer to Section Fostering Intrinsic Motivation below.

The majority of students (82.0%) believed that a student's overall well-being, encompassing both physical and mental health, impacts their self-motivation. Additionally, 69.7% of students acknowledged that engaging in self-care activities and practices that promote their well-being helps sustain motivation over the course of a semester.

External factors such as grades, rewards, and recognition were considered influential by a significant proportion of students (66.0%) in fostering and developing their motivation. Furthermore, a majority of students (79.5%) recognized the impact of external stimuli like verbal praise, awards, certificates of appreciation, and public recognition on their motivation levels. The support and encouragement received from friends, classmates, and family members were also deemed significant by the majority of students (77.0%) in determining their motivation levels.

The presence of study groups, peer mentoring, and collaborative experiences were identified by 64.5% of students as having a tangible effect on their motivation and learning outcomes. Additionally, constructive feedback from professors and colleagues was considered crucial by most students (83.0%) in influencing their motivation and the learning process. However, this study claims that external motivators such as grades, rewards, or praise may initially encourage individuals to engage in learning activities, but they may not sustain the same level of motivation over time. If the external rewards diminish or become less important, individuals may lose interest or disengage from the learning process.

According to the results, 76.3% of students emphasized the importance of effort, flexibility, and continuous learning in their academic journey. A considerable portion of students (61.0%) believed that their personal and academic growth had improved during their time at the university. Positivity was identified by nearly half of the students (52.9%) as a valuable asset in avoiding procrastination and staying focused on their studies. Similarly, being optimistic was considered beneficial for avoiding procrastination and maintaining focus by 50.6% of the students.

Overall, the study highlighted the significance of both internal and external factors, such as goal-setting, well-being, external stimuli, social support, collaborative experiences, constructive feedback, personal attributes, and positivity, in influencing student motivation and enhancing their learning experiences.

**Table 2.** Participants' responses on agree/disagree questions (n=713).

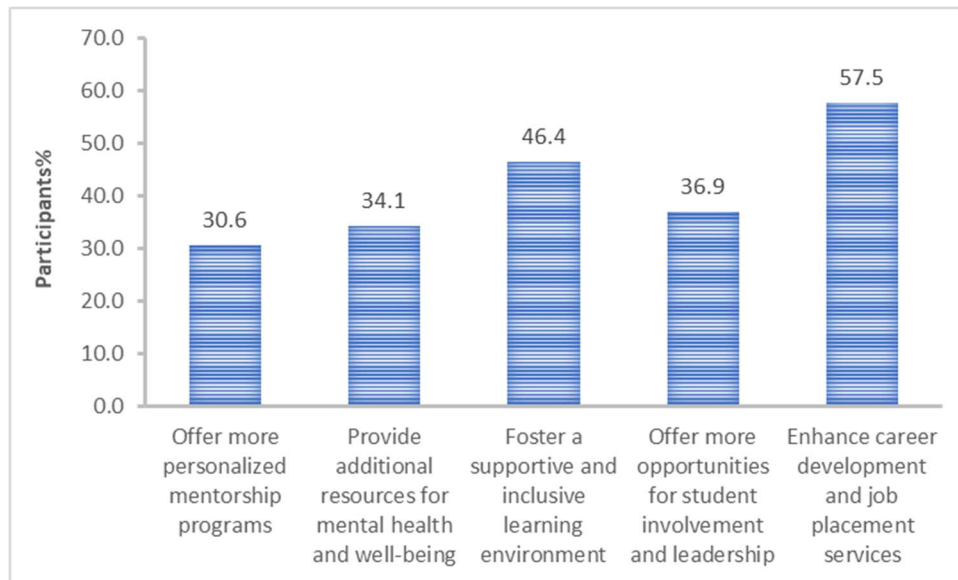
|            | Strongly disagree | Disagree       | Neutral        | Agree          | Strongly agree | Average | SD   |
|------------|-------------------|----------------|----------------|----------------|----------------|---------|------|
| <b>Q5</b>  | 190<br>(26.6%)    | 148<br>(20.8%) | 194<br>(27.2%) | 95 (13.3%)     | 86 (12.1%)     | 2.63    | 1.32 |
| <b>Q6</b>  | 169<br>(23.7%)    | 134<br>(18.8%) | 187<br>(26.2%) | 157<br>(22.0%) | 66 (9.3%)      | 2.74    | 1.29 |
| <b>Q7</b>  | 186<br>(26.1%)    | 171<br>(24.0%) | 192<br>(26.9%) | 108<br>(15.1%) | 56 (7.9%)      | 2.55    | 1.24 |
| <b>Q8</b>  | 180<br>(25.2%)    | 176<br>(24.7%) | 154<br>(21.6%) | 136<br>(19.1%) | 67 (9.4%)      | 2.63    | 1.30 |
| <b>Q9</b>  | 181<br>(25.4%)    | 159<br>(22.3%) | 178<br>(25.0%) | 134<br>(18.8%) | 61 (8.6%)      | 2.63    | 1.28 |
| <b>Q10</b> | 212<br>(29.7%)    | 157<br>(22.0%) | 148<br>(20.8%) | 149<br>(20.9%) | 47 (6.6%)      | 2.53    | 1.29 |
| <b>Q11</b> | 163<br>(22.9%)    | 114<br>(16.0%) | 170<br>(23.8%) | 203<br>(28.5%) | 63 (8.8%)      | 2.84    | 1.30 |
| <b>Q12</b> | 163<br>(22.9%)    | 153<br>(21.5%) | 161<br>(22.6%) | 169<br>(23.7%) | 67 (9.4%)      | 2.75    | 1.30 |
| <b>Q13</b> | 19 (2.7%)         | 37 (5.2%)      | 90 (12.6%)     | 340<br>(47.7%) | 227<br>(31.8%) | 4.01    | 0.94 |
| <b>Q14</b> | 22 (3.1%)         | 79 (11.1%)     | 141<br>(19.8%) | 334<br>(46.8%) | 137<br>(19.2%) | 3.68    | 1.00 |
| <b>Q15</b> | 175<br>(24.5%)    | 162<br>(22.7%) | 173<br>(24.3%) | 160<br>(22.4%) | 43 (6.0%)      | 2.63    | 1.24 |
| <b>Q16</b> | 6 (0.84%)         | 26 (3.6%)      | 137<br>(19.2%) | 373<br>(52.3%) | 171<br>(24.0%) | 3.95    | 0.81 |
| <b>Q17</b> | 147<br>(20.6%)    | 130<br>(18.2%) | 187<br>(26.2%) | 166<br>(23.3%) | 83 (11.6%)     | 2.87    | 1.30 |
| <b>Q18</b> | 9 (1.3%)          | 64 (9.0%)      | 193<br>(27.1%) | 299<br>(41.9%) | 148<br>(20.8%) | 3.72    | 0.93 |
| <b>Q19</b> | 18 (2.5%)         | 38 (5.3%)      | 156<br>(21.9%) | 345<br>(48.4%) | 156<br>(21.9%) | 3.82    | 0.92 |
| <b>Q20</b> | 18 (2.5%)         | 22 (3.1%)      | 124<br>(17.4%) | 350<br>(49.1%) | 199<br>(27.9%) | 3.97    | 0.90 |
| <b>Q21</b> | 24 (3.4%)         | 54 (7.6%)      | 175<br>(24.5%) | 333<br>(46.7%) | 127<br>(17.8%) | 3.68    | 0.96 |
| <b>Q22</b> | 9 (1.3%)          | 10 (1.4%)      | 102<br>(14.3%) | 370<br>(51.9%) | 222<br>(31.1%) | 4.10    | 0.78 |
| <b>Q23</b> | 13 (1.8%)         | 19 (2.7%)      | 96 (13.5%)     | 266<br>(37.3%) | 319<br>(44.7%) | 4.20    | 0.90 |

|            |           |           |                |                |                |      |      |
|------------|-----------|-----------|----------------|----------------|----------------|------|------|
| <b>Q24</b> | 23 (3.2%) | 32 (4.5%) | 161<br>(22.6%) | 319<br>(44.7%) | 178<br>(25.0%) | 3.84 | 0.96 |
| <b>Q25</b> | 9 (1.3%)  | 38 (5.3%) | 178<br>(25.0%) | 362<br>(50.8%) | 126<br>(17.7%) | 3.78 | 0.84 |
| <b>Q26</b> | 38 (5.3%) | 53 (7.4%) | 187<br>(26.2%) | 299<br>(41.9%) | 136<br>(19.1%) | 3.62 | 1.04 |
| <b>Q27</b> | 22 (3.1%) | 50 (7.0%) | 264<br>(37.0%) | 303<br>(42.5%) | 74 (10.4%)     | 3.50 | 0.88 |
| <b>Q28</b> | 19 (2.7%) | 50 (7.0%) | 283<br>(39.7%) | 284<br>(39.8%) | 77 (10.8%)     | 3.49 | 0.88 |

Response scale: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, and 5 = Strongly Agree.

In order to enhance self-motivation among students, there are various areas where universities can focus their efforts, according to student opinions. A significant percentage (57.5%) of students believe that universities should prioritize promoting career development and employment services. Similarly, 46.4% of students emphasize the importance of fostering a supportive and comprehensive learning environment. The study presented that implementing strategies of feedback and regular communication, educators can create an online learning environment that nurtures intrinsic motivation in social science students. Encouraging a sense of community, offering autonomy, emphasizing real-world applications, fostering mastery, promoting self-reflection, and providing engaging learning experiences will help students develop a genuine interest and passion for their studies.

Furthermore, 36.9% of students suggest that universities should provide more opportunities for student participation and empower them to take on leadership roles. Additionally, 34.1% of students express the need for universities to allocate additional resources to support mental health and overall well-being. Lastly, 30.6% of students believe that universities should offer more personalized counseling programs to cater to individual student needs, as depicted in Figure 4. These insights shed light on potential areas of improvement that can effectively enhance student self-motivation. Acknowledging and integrating these elements can assist individuals and organizations in establishing settings that nurture and encourage innate motivation, as shown in Section Factors that promote intrinsic motivation.



**Figure 4.** In your opinion, what could universities do to better support students' intrinsic motivation?

### Extrinsic Motivation

Occasionally, our lack of drive towards a particular activity does not stem from a lack of intrinsic motivation but rather from other factors that undermine our motivation. (Fischer, Malycha, & Schafmann, 2019). External incentives such as money, recognition, or praise are examples of extrinsic motivation. They are external factors that are used to influence behavior and drive individuals to engage in certain activities or pursue specific goals. While extrinsic motivation can be effective in prompting action, its effects may vary in terms of long-term engagement and intrinsic satisfaction (Heckhausen & Heckhausen 2018). Money is a common extrinsic motivator that is often used in work settings. It is a tangible reward that can provide individuals with financial security, comfort, and the ability to meet their needs and desires. Financial incentives such as salaries, bonuses, or commission-based structures can drive individuals to perform certain tasks or achieve specific targets. However, the relationship between money and motivation is complex. While it can be a powerful motivator for tasks that are purely transactional, research suggests that once basic financial needs are met, other intrinsic factors may become more important in driving motivation, (Harunavamwe & Kanengoni 2013). Recognition refers to acknowledging and appreciating an individual's efforts, accomplishments, or contributions. It can take various forms, including verbal praise, awards, certificates, or public acknowledgement. Recognition can be a potent extrinsic motivator as it satisfies the need for social validation and esteem (Lam & Lambermont-Ford 2010). When individuals receive recognition, it boosts their self-esteem, enhances their sense of competence, and reinforces desired behaviors. Being acknowledged for one's work can increase motivation, engagement, and the willingness to continue performing at a high level. Praise involves expressing approval, admiration, or positive feedback for someone's actions or qualities. It can be verbal or written, and it highlights and reinforces desirable behaviors or achievements. Praise can have a significant impact on motivation, particularly in educational or

developmental contexts (Lai 2011). When individuals receive praise, it triggers positive emotions, boosts self-confidence, and enhances their self-perception. Praise can encourage individuals to continue engaging in the praised behavior and strive for further improvement. While extrinsic motivators like money, recognition, and praise can stimulate action, it's important to note that they may have limitations, (Kendra Cherry). Over-reliance on external rewards can sometimes undermine intrinsic motivation. When individuals become too dependent on external incentives, their focus may shift from the inherent enjoyment or satisfaction of the activity to the extrinsic rewards themselves (Harter 1981). This can lead to a decrease in intrinsic motivation and a diminished sense of personal satisfaction. Additionally, the effectiveness of external incentives can vary depending on factors such as individual preferences, the nature of the task, and the context in which they are used. Different people may have different levels of sensitivity to extrinsic rewards, and the impact of these incentives may diminish over time if they are not accompanied by other intrinsic motivators.

### **Fostering intrinsic motivation**

Fostering intrinsic motivation through autonomy, mastery, purpose, and enjoyment involves creating an environment and providing opportunities that support individuals' inherent drives for self-determination, growth, meaning, and fulfillment (Deci & Ryan 2016). Autonomy refers to providing individuals with a sense of control and agency over their actions, decisions, and goals. It involves allowing them to have choices, encouraging independent thinking, and respecting their perspectives and preferences. To foster intrinsic motivation through autonomy, it's important to provide a level of freedom and flexibility in how individuals approach tasks or pursue goals. This can include allowing them to set their own objectives, giving them a voice in decision-making processes, and supporting self-directed learning or work methods. When individuals have a sense of autonomy, they feel more motivated, engaged, and responsible for their actions (Maïke Neuhaus). Mastery involves the desire to improve skills, achieve competence, and make progress in a particular domain. To foster intrinsic motivation through mastery, it's crucial to provide individuals with opportunities for skill development, growth, and learning (Cerasoli & Ford 2014). This can be done by setting challenging yet attainable goals, offering resources and support for acquiring new knowledge or abilities, and providing constructive feedback that helps individuals track their progress and identify areas for improvement. Creating a growth-oriented environment that values effort, resilience, and continuous learning can inspire individuals to engage in activities for the sake of self-improvement and mastery. Purpose refers to finding meaning, significance, and alignment with personal values in one's actions or goals. When individuals perceive their actions as meaningful and purposeful, they are more likely to be intrinsically motivated and committed. Enjoyment refers to finding pleasure, interest, and satisfaction in the process of engaging with an activity or pursuing a goal (Arlen Moller a). To foster intrinsic motivation through enjoyment, it's important to create an environment that is stimulating, engaging, and conducive to positive experiences. This can involve designing tasks or projects that are challenging yet enjoyable, incorporating elements of novelty or variety, promoting curiosity, and encouraging

individuals to pursue their passions or interests. Creating a supportive and positive atmosphere that celebrates achievements, encourages creativity, and values the joy of the process can enhance intrinsic motivation. It's important to note that fostering intrinsic motivation through autonomy, mastery, purpose, and enjoyment is an ongoing process that requires attention and intentional design. Different individuals may have varying needs and preferences, so it's important to consider their unique characteristics and create customized approaches that cater to their intrinsic motivational drivers. By nurturing these factors, individuals are more likely to experience a deep sense of engagement, satisfaction, and personal fulfillment in their activities or pursuits (Arlen Moller b).

### **Factors that promote intrinsic motivation**

Factors that promote intrinsic motivation include autonomy, competence, relatedness, and alignment with personal values. Let's explore each of these factors in more detail:

**Autonomy:** Autonomy refers to having a sense of control, choice, and independence in one's actions and decisions. When individuals feel that they have the freedom to make choices and have a say in their activities, it enhances their intrinsic motivation. Autonomy allows individuals to align their actions with their own interests, preferences, and needs, which fosters a sense of ownership and personal investment (Deci & Ryan 2016). It empowers individuals to pursue activities that are meaningful to them, leading to increased intrinsic motivation.

**Competence:** Competence relates to feeling capable, skilled, and effective in performing a task or achieving a goal. When individuals perceive themselves as competent in a particular domain, it boosts their intrinsic motivation. Mastery and skill development are inherently rewarding, and the desire to improve and become more competent drives intrinsic motivation. Opportunities for growth, feedback, and recognition of progress contribute to a sense of competence and foster intrinsic motivation.

**Relatedness:** Relatedness refers to the need for connection, belonging, and positive relationships with others. When individuals feel a sense of connection and support from others, it enhances their intrinsic motivation. Positive social interactions, collaboration, and a supportive environment create a sense of community and foster intrinsic motivation. When individuals feel understood, valued, and connected to others, it provides a motivational boost that promotes engagement and enjoyment in their activities.

**Alignment with Personal Values:** Alignment with personal values refers to engaging in activities that are consistent with one's core beliefs, ideals, and aspirations. When individuals feel that their actions are in line with their deeply held values, it strengthens their intrinsic motivation. Engaging in activities that are meaningful and purposeful, and that align with personal values, taps into individuals' intrinsic desire to make a positive impact or contribute to something greater than themselves. The sense of purpose and fulfillment derived from these activities consolidates intrinsic motivation.

These factors interact and reinforce each other. When individuals have autonomy, feel competent, experience positive relationships, and engage in activities that align with their values, it creates a

motivational environment that nurtures intrinsic motivation. Intrinsic motivation, in turn, leads to greater engagement, persistence, and enjoyment in activities, promoting personal growth, and well-being. Recognizing and incorporating these factors can help individuals and organizations create environments that foster and support intrinsic motivation.

### **Motivating social science and sciences university students**

While there may be some similarities in motivating university students studying social sciences and sciences, there can also be notable differences due to the nature of the disciplines. Social sciences and natural sciences often have different subject matter and research methodologies, (Elhadary et al. 2020). Social sciences focus on the study of human behavior, society, and cultural phenomena, often involving qualitative research methods and critical analysis. Natural sciences, on the other hand, explore the physical and natural world, relying on quantitative methods and empirical observations. The different approaches to research and inquiry can influence how students perceive the relevance and application of their studies, which may impact their intrinsic motivation. Natural sciences often have a more direct connection to practical applications and tangible outcomes. Students in natural sciences can see the direct impact of their work in fields such as medicine, engineering, or environmental studies. In contrast, social sciences may place a stronger emphasis on theoretical frameworks, critical thinking, and understanding complex societal issues. Motivating social science students may involve helping them recognize the practical implications and real-world relevance of their studies. The career pathways and goals of students in social sciences and sciences can differ significantly. Natural science students may be more focused on pursuing careers in research, healthcare, technology, or engineering, where they can see a direct connection between their studies and specific professions, (Kerins et al. 2004). Social science students, on the other hand, may have diverse career aspirations such as social work, policy analysis, counseling, or advocacy. Understanding the career goals and providing relevant examples and guidance can enhance intrinsic motivation in both groups. science education often places a strong emphasis on critical thinking, analyzing societal issues, and understanding complex systems. Motivating social science students may involve highlighting the importance of their analytical skills and their potential to effect change in society. In contrast, natural sciences may emphasize problem-solving and experimentation, where motivation can be enhanced by emphasizing the process of discovery, making breakthroughs, and contributing to scientific advancements. Both social science and natural science students can benefit from research opportunities, but the nature of research experiences can differ. Natural science students may have more access to laboratory-based research, fieldwork, or data analysis. Social science research, on the other hand, may involve qualitative research methods, interviews, surveys, or data interpretation. Providing research opportunities that align with students' interests and career goals can enhance intrinsic motivation in both disciplines. While these are general observations, it's important to recognize that every student is unique and may respond differently to various motivational strategies. Understanding the specific needs, interests, and goals of individual

students, regardless of their discipline, is crucial for tailoring motivation-enhancing approaches effectively.

### **Mind Growth**

Mind growth refers to the development and expansion of one's intellectual abilities, knowledge, and cognitive skills. It encompasses the process of learning, acquiring new information, and gaining a deeper understanding of various subjects or disciplines. Intrinsic motivation, on the other hand, refers to the internal drive and desire to engage in an activity for its own sake, rather than for external rewards or incentives. When individuals are intrinsically motivated, they find personal satisfaction, enjoyment, and fulfillment in the process of learning and growing their minds, without relying solely on external factors (Sisk et al. 2018). Mind growth and intrinsic motivation often go hand in hand. It allows individuals to pursue their intellectual interests and passions, even in the absence of external rewards or recognition. When people are intrinsically motivated, they tend to set higher goals, take on challenges, and invest more effort in their learning endeavors. In contrast, relying solely on external rewards or extrinsic motivation can hinder mind growth in the long run. Cultivating intrinsic motivation for mind growth can be facilitated through various strategies (Vansteenkiste & Ryan 2013). Providing individuals with choices, autonomy, and control over their learning process can enhance intrinsic motivation. Allowing them to pursue topics of interest and providing a sense of ownership over their learning can foster a greater desire for mind growth. Setting challenging but attainable goals and providing opportunities for individuals to develop their skills and expertise can enhance intrinsic motivation. Progressing and improving in a particular area can be highly rewarding and motivating. Helping individuals understand the relevance and purpose behind their learning can increase intrinsic motivation. Showing how their knowledge and skills can be applied to real-world situations or contribute to meaningful outcomes can foster a sense of purpose and intrinsic drive. Encouraging curiosity, exploration, and open-ended inquiry can stimulate intrinsic motivation. Creating an environment that supports questioning, discovery, and intellectual exploration can fuel individuals' desire to learn and grow their minds (Ackermann 2004). Providing constructive feedback, acknowledging progress, and offering support can enhance intrinsic motivation. Positive reinforcement and recognition for effort and achievements can promote a sense of competence, confidence, and intrinsic satisfaction. A growth mindset is a belief system that emphasizes the potential for personal growth and development through effort, practice, and perseverance. It is the understanding that our abilities and intelligence are not fixed traits but can be improved and expanded over time (Pink 2009). The concept of a growth mindset was popularized by psychologist Carol Dweck through her extensive research on achievement and motivation. According to Dweck, individuals with a growth mindset believe that intelligence and abilities can be cultivated through hard work, effective strategies, and learning from setbacks and failures. They see challenges as opportunities for growth and view effort as a crucial component of success. On the other hand, individuals with a fixed mindset hold the belief that intelligence and abilities are inherent and unchangeable traits (Pink 2011). They tend to believe that their intelligence is fixed and that success or failure is determined by these

fixed qualities. This mindset often leads to a fear of failure, avoidance of challenges, and a tendency to rely on existing skills without seeking growth or improvement.

### **Nature of intelligence**

Research has demonstrated that our implicit beliefs about the nature of intelligence, whether it is fixed or malleable, can significantly influence our achievement and performance (De Castella & Byrne 2015). Studies have shown that students with a growth mindset tend to outperform those with a fixed mindset (Pink 2011). When students believe that their intelligence can be developed, they are more likely to embrace challenges, persist in the face of obstacles, and put in the necessary effort to succeed. They also exhibit better problem-solving skills, resilience, and a willingness to seek help and feedback. Individuals with a growth mindset view failure as a temporary setback and an opportunity for learning and improvement. They are more likely to bounce back from failures, maintain their motivation, and adjust their strategies to overcome challenges. In contrast, individuals with a fixed mindset may interpret failure as evidence of their limited abilities and are more prone to giving up or avoiding future challenges. A growth mindset promotes the belief that effort and effective learning strategies can lead to improvement. Individuals with a growth mindset are more inclined to invest effort, seek feedback, and engage in deliberate practice to enhance their skills and knowledge. They see setbacks and mistakes as valuable feedback that guides their learning process. People with a growth mindset demonstrate greater adaptability and resilience in the face of adversity. They are more likely to embrace change, take on new challenges, and persevere in difficult circumstances. Their belief in the potential for growth enables them to navigate obstacles with a positive and proactive mindset. Research in neuroscience has provided evidence of neuroplasticity, the brain's ability to reorganize and form new neural connections (Merabet & Pascual-Leone 2010). It suggests that the brain can adapt and grow throughout life in response to learning and experience. A growth mindset aligns with this understanding, emphasizing the brain's capacity for change and growth (Pati Schultz). Overall, the belief in a growth mindset has significant implications for achievement, learning, and personal development. Embracing a growth mindset can foster a love for learning, resilience in the face of challenges, and a willingness to push beyond perceived limits. By understanding that abilities and intelligence can be developed, individuals can unlock their full potential and achieve greater success in various areas of life.

### **How can intrinsic motivation be consolidated?**

High pleasure, satisfaction, interest, fun, and engagement are factors that contribute to the consolidation of intrinsic motivation. When individuals experience these positive states, it enhances their intrinsic motivation to engage in an activity or pursue a specific goal (Tan Ai Lin et al. 2018). Experiencing pleasure while engaging in an activity can reinforce intrinsic motivation. When individuals find an activity enjoyable, pleasurable, or intrinsically rewarding, they are more likely to continue engaging in it and seek similar experiences in the future. The positive feelings associated with pleasure create a positive feedback loop that strengthens intrinsic motivation.

(Amabile et al. 1994). Feeling a sense of satisfaction or accomplishment after completing a task or achieving a goal can consolidate intrinsic motivation. When individuals perceive their efforts as successful or meaningful, it boosts their confidence, self-efficacy, and intrinsic motivation to continue pursuing similar endeavors, (Elhadary & Elhaty 2021). The sense of satisfaction acts as a reinforcement, reinforcing the desire to engage in the activity. Having a genuine interest or curiosity in a subject or activity is a powerful driver of intrinsic motivation. When individuals are genuinely interested in what they are doing, they are more likely to be motivated intrinsically. The inherent curiosity and desire to learn or explore further fuels their motivation, making the activity more enjoyable and meaningful. Incorporating elements of fun and enjoyment into an activity can significantly impact intrinsic motivation. When an activity is fun, engaging, and entertaining, individuals are more likely to be motivated intrinsically to participate. The positive emotions and enjoyment associated with fun experiences create a desire to continue engaging in the activity and seek out similar enjoyable experiences. Being fully engaged and immersed in an activity consolidates intrinsic motivation. When individuals are deeply absorbed and focused on an activity, they experience a state of flow, where their skills match the challenges at hand. This state of optimal engagement enhances intrinsic motivation by providing a sense of accomplishment, enjoyment, and fulfillment. By promoting high levels of pleasure, satisfaction, interest, fun, and engagement, individuals are more likely to experience a sense of intrinsic motivation. These positive factors create a reinforcing cycle, where the enjoyable and meaningful aspects of the activity drive further motivation, leading to continued engagement and personal growth.

## Conclusion

In conclusion, cultivating intrinsic motivation in university online classes is a crucial endeavor for educators and institutions alike. As online learning continues to expand and evolve, it is imperative to address the unique challenges and opportunities it presents in terms of student engagement and motivation. This article has explored various strategies and approaches to foster intrinsic motivation among students in online university classes, particularly in the context of social science disciplines. The findings suggest that providing meaningful and relevant content, encouraging autonomy and choice, setting clear goals and expectations, promoting collaborative learning, utilizing multimedia and interactive tools, cultivating a supportive online learning community, and providing timely and constructive feedback are effective methods for fostering intrinsic motivation in online social science students. These strategies empower students to take ownership of their learning, connect course content to real-world applications, and develop a sense of belonging and agency within the online learning environment. Moreover, the integration of content analysis and quantitative analysis via questionnaires offers a comprehensive approach to understanding and enhancing intrinsic motivation in online classes. By combining the in-depth analysis of textual content with the collection of quantitative data, researchers can gain valuable insights into students' perceptions, attitudes, and experiences, thereby informing pedagogical practices and interventions to enhance intrinsic motivation. However, it is important to acknowledge that fostering intrinsic motivation in online classes is an ongoing process that requires ongoing evaluation and adaptation.

As technology and online learning platforms continue to evolve, educators must continually assess and refine their strategies to meet the changing needs and expectations of students. Ultimately, by cultivating intrinsic motivation in university online classes, educators can create engaging and transformative learning experiences that inspire students to become active participants in their own education. This not only contributes to their academic success but also equips them with the lifelong skills and motivation needed to thrive in their future endeavors. As online education becomes increasingly prevalent, it is vital for educational institutions to prioritize the cultivation of intrinsic motivation and continuously explore innovative approaches to enhance student engagement and motivation in online learning environments.

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