Intrinsic and Extrinsic Motivational Factors Influencing Generation Z Students in Pursuing Higher Education

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ABSTRACT

Motivation is an important element influencing students' decisions to pursue higher education. Studies that specifically examine intrinsic and extrinsic motivational factors influencing Generation Z students' decisions to pursue higher education, as well as gender-based differences, remain limited and warrant further investigation. This study was conducted to address the knowledge gap in the literature concerning the motivation of Generation Z students in making decisions to pursue higher education in Malaysia. Using a quantitative approach, this study involved 367 first-semester pre-diploma and diploma students from various programmes at Universiti Teknologi MARA (UiTM) Melaka Branch, Alor Gajah Campus. Data were collected using convenience sampling and analysed using SPSS through descriptive statistics and the Chi-square test. The findings revealed that the primary intrinsic motivational factor was interest in their chosen field of study, with 58.6% of respondents, while 67.0% reported extrinsic factors, including family encouragement, financial assistance, career opportunities, and institutional reputation, as the main influence on their decisions. The Chi-square test indicated no statistically significant differences between male and female students for both intrinsic motivation (χ^2=0.005, p=0.945) and extrinsic motivation (χ^2=0.090, p=0.765). Despite the study's limitation of focusing on a single campus, the findings are expected to provide an empirical foundation for higher education institutions to develop learning ecosystems that are more responsive to the characteristics and needs of Generation Z. The findings further suggest the need for institutions to enrich teaching pedagogies by integrating students' personal interests while strengthening extrinsic support structures to address the holistic needs of the current generation of students.

Keywords: intrinsic motivation, extrinsic motivation, Generation Z, higher education, gender differences

INTRODUCTION

Background of Study

Motivation is an important factor that influences individuals' actions, commitment, and involvement in achieving specific goals (Ryan & Deci, 2000). Thus, motivation plays a pivotal role in many aspects of human lives. From the educational context, motivation helps shape and influence students' decisions to pursue higher education and maintain their engagement in the learning process. Today, the majority of undergraduates in higher education institutions consist of Generation Z, those born between 1997 and 2012. Being surrounded by technology since birth, Generation Z students grow up in the era of digital transformation and global competition and tend to view higher education not only as a platform for intellectual development but also as a pathway towards better career opportunities and future stability (Mohr & Mohr, 2017). In the Malaysian education context, graduate employability and workplace competitiveness are emphasised, which heightens the importance of academic achievement among students.

As a result, students' decisions to continue their studies are often influenced by various motivational factors, both intrinsic and extrinsic in nature. Intrinsic motivation refers to internal factors such as students' interest in their field of study and personal satisfaction in learning. Meanwhile, extrinsic motivation refers to external influences such as family encouragement, financial assistance, institutional reputation, and future career

opportunities. Although intrinsic and extrinsic motivation have been widely discussed in educational psychology (Ryan & Deci, 2000), studies related to the motivational factors influencing Generation Z students to pursue higher education in the Malaysian context are still limited. This is because this generation serves as the newest demographic cohort to enter higher education. In addition, there are differing views regarding the influence of gender on students' motivational tendencies. Jeppu et al. (2024) indicate that intrinsic and extrinsic motivation are higher in undergraduate female students.

On the other hand, other studies found no statistically significant difference in terms of intrinsic and extrinsic motivation between the two genders of undergraduate students (Mat Saad et al.,2011).These circumstances highlight the need to identify the motivational factors influencing Generation Z undergraduate students' decisions to pursue higher education and to examine whether there are differences in motivation based on gender. Therefore, this study is conducted to identify the intrinsic and extrinsic motivational factors influencing Generation Z students in pursuing higher education and to examine whether there are differences in motivational factors between male and female students. The study is expected to provide a clearer understanding of Generation Z students' motivational tendencies and assist educational institutions in planning educational approaches that are more suitable for the needs of present-day students.

Problem Statement

The emergence of Generation Z has triggered a paradigm shift in how students perceive the function and value of higher education. Having grown up in an era defined by rapid technological advancements, social changes, and intense global competition, Generation Z students increasingly view higher education not merely as a platform for intellectual growth but as a strategic, pragmatic pathway towards career opportunities and financial stability (Ishak et al., 2022). However, a significant tension has emerged where a growing portion of Generation Z is questioning the fundamental value of a traditional university degree, exhibiting marked distrust towards higher education institutions regarding their cost and overall return on investment (Knott, 2022). Driven by concerns over escalating tuition fees and the prospect of mounting student loan debt, many within this cohort are actively exploring alternative pathways, such as technical and vocational training that offer "earn while you learn" apprenticeship models (Sheffey, 2024; Krawcke, 2024).

In Malaysia, this is increasingly reflected in the growing preference for gig-economy employment (Maarof & Abd Razak, 2026; Mohd Shakil, 2024) or state-sponsored Technical and Vocational Education and Training (TVET) programmes that offer immediate financial returns. Maarof and Abd Razak (2026) highlighted the situation in Malaysia where youths are increasingly attracted to independent, task-based jobs, and most of these jobs do not require a high level of academic qualification. On the other hand, many of them view TVET education as a practical and employment-focused pathway compared to traditional higher education (Financial Industry Collective Outreach, 2025). The contrast between the necessity of education for social mobility and the rising scepticism of its financial success creates a critical gap in understanding student enrollment behaviours (Sohar et al., 2025). Therefore, this research is undertaken to explore the specific intrinsic and extrinsic motivational factors that influence Generation Z students' decisions to pursue traditional higher education.

Research Objectives

1.3.1 To identify intrinsic motivational factors influencing Generation Z students to pursue higher education.

1.3.2 To identify extrinsic motivational factors influencing Generation Z students to pursue higher education.

1.3.3. To examine whether there is a significant difference in intrinsic motivational factors between male and female students.

1.3.4 To examine whether there is a significant difference in extrinsic motivational factors between male and female students.

Research Questions

1.4.1 What intrinsic motivational factors influence Generation Z students to pursue higher education?

1.4.2 What extrinsic motivational factors influence Generation Z students to pursue higher education?

1.4.3 Is there a significant difference in intrinsic motivational factors between male and female students?

1.4.4 Is there a significant difference in extrinsic motivational factors between male and female students?

LITERATURE REVIEW

Concept of Motivation in Education

Motivation in education is often discussed as an important element that influences the effectiveness of teaching and learning processes and serves as a foundation for students' active engagement in academic activities. Previous studies have described the concept of motivation from various perspectives to explain its role in influencing students' behaviour and tendencies within educational contexts. In general, motivation does not merely refer to the desire to learn, but also involves students' ability to sustain effort, commitment, and engagement in achieving educational goals. In this context, Rahmat et al. (2021) found that motivation has a significant relationship with students' level of commitment, indicating that motivation plays an important role in shaping students' behaviour and educational experiences. This aligns with the foundational work of Ryan and Deci (2000), who explained that motivation not only influences individuals' actions but also shapes their tendency to initiate and maintain involvement in learning activities. These sentiments are further supported by Ghazali and Raja Sulaiman (2016), who reported that motivation influences students' readiness to continue learning and achieve academic goals. Overall, previous studies suggest that motivation in education should not be viewed as a single factor, but rather as a concept influenced by various respondent contexts and educational environments. Therefore, examining groups of students with different backgrounds and characteristics may broaden the understanding of motivational factors and contribute to new findings related to students' tendencies in making educational decisions.

Intrinsic Motivation

Intrinsic motivation refers to internal factors such as personal interest, self-satisfaction, the desire for self-improvement, and an individual's tendency to engage in activities without being influenced by external rewards. Intrinsic motivation plays an important role in enhancing students' engagement and maintaining their commitment to learning. A study conducted by Teoh and Lam (2023) found that a high level of interest in a particular field of study increases students' involvement in the learning process. This finding is consistent with Abdullah et al. (2019), who reported that strong internal motivation influences students' academic commitment and their tendency to achieve learning goals. In addition, Teoh and Lam (2023) highlighted that elements such as personal interest and self-enjoyment contribute to students' active participation in learning activities, while Wee (2015) found that internal motivation influences students' readiness for learning. Although these studies focused on different aspects such as interest, internal drive, self-enjoyment, and learning readiness, the findings suggest that intrinsic motivation involves a combination of various internal factors that may influence students' tendencies in making educational decisions.

Extrinsic Motivation

Extrinsic motivation refers to motivation influenced by external factors that encourage individuals to perform certain actions to obtain rewards or achieve specific goals. Brown (2007) explained that extrinsic motivation is associated with an individual's tendency to engage in activities in order to obtain rewards, either in physical or psychological forms. In the context of education, external factors such as rewards, praise, recognition, family support, and future prospects often influence students' behaviour and educational decisions. This perspective is consistent with Karsenti and Thibert (1995), who emphasised that students' behaviour is largely influenced by external factors such as rewards and punishments that shape their learning tendencies. Furthermore, Ormrod (2011) stated that students influenced by extrinsic motivation are generally encouraged to perform tasks to

achieve specific goals, such as obtaining good academic results or attaining future success. However, extrinsic motivation should be viewed from a broader perspective, as excessive rewards may potentially reduce students' internal drive towards learning. This situation suggests that although extrinsic factors may enhance students' tendencies towards education, their influence may vary according to individual needs, goals, and backgrounds. In the context of higher education, factors such as career opportunities, career stability, and environmental influences may become important factors affecting students' decisions to pursue higher education.

Generation Z in Higher Education

The emergence of Generation Z in higher education has brought changes to the way students perceive the function and purpose of education in the present era. This generation has grown up in an environment influenced by technological advancements, social changes, and increasing global competition. Such circumstances have led Generation Z students to view higher education not only as a platform for intellectual development but also as a strategic pathway to enhance career opportunities, social mobility, and future stability. A study conducted by Thien et al. (2022) found that educational experiences and students' engagement influence their learning tendencies as well as the educational decisions they make. This finding is consistent with Ishak et al. (2022), who reported that Generation Z tends to make educational decisions based on current needs and future expectations. In addition, Singh et al.(2022) found that learning environments and external factors also influence educational acceptance and tendencies among Generation Z students. These findings suggest that the decision to pursue higher education is not solely influenced by academic factors, but also involves various considerations related to future aspirations and personal development. In sum, Generation Z possesses its own distinctive characteristics and tendencies; the factors influencing their decisions to pursue higher education still require further investigation to provide a deeper understanding of this generation's educational tendencies.

Gender Differences in Motivation

Gender differences in motivation have been widely examined because motivation is closely associated with learning engagement and academic achievement. Although motivation has been identified as an important factor influencing students' performance, findings regarding the influence of gender remain inconsistent due to factors such as field of study, culture, and learning environment. A meta-analysis conducted by Turhan (2020) indicated that gender differences in academic motivation do exist; however, their effects are moderate and dependent on the research context. Similarly, Meece et al. (2009) emphasised that motivation is influenced by psychological, social, and environmental factors. Several studies have reported that female students tend to demonstrate higher levels of intrinsic motivation than male students. Brouse et al. (2010) found that female students exhibited higher levels of intrinsic motivation, while D'Lima et al. (2014) also reported that female students showed stronger learning goal orientations and higher intrinsic motivation. However, Naz et al. (2020) found no significant differences between male and female students, whereas Karataş and Erden (2014) suggested that motivation varies according to academic fields and educational contexts. In addition, Lishinski et al.(2016) found that the relationship between motivation and academic performance differs according to gender, while Virtanen and Nevgi (2010) associated motivation with self-regulated learning strategies. In fact, female students tend to demonstrate higher intrinsic motivation; nevertheless, previous findings remain inconsistent and suggest that motivation is also influenced by various other factors.

CONCEPTUAL FRAMEWORK

Figure 1 below shows the conceptual framework for the study. The conceptual framework posits that Generation Z students' decision to pursue higher education is directly influenced by two core dimensions of motivation, which are intrinsic motivational factors and extrinsic motivational factors. Intrinsic motivation encompasses internal drivers such as personal interest and self-satisfaction, whereas extrinsic motivation reflects external pressures and rewards, including family influence, financial support, career prospects, and university reputation. Furthermore, the framework integrates gender as a moderating or comparative variable to examine potential variances in how these intrinsic and extrinsic factors operate across demographic groups. By evaluating these interactions, the study seeks to determine not only the relative strength of internal versus

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external drivers in shaping enrollment choices, but also whether these motivational pathways differ significantly between male and female students within the higher education ecosystem.

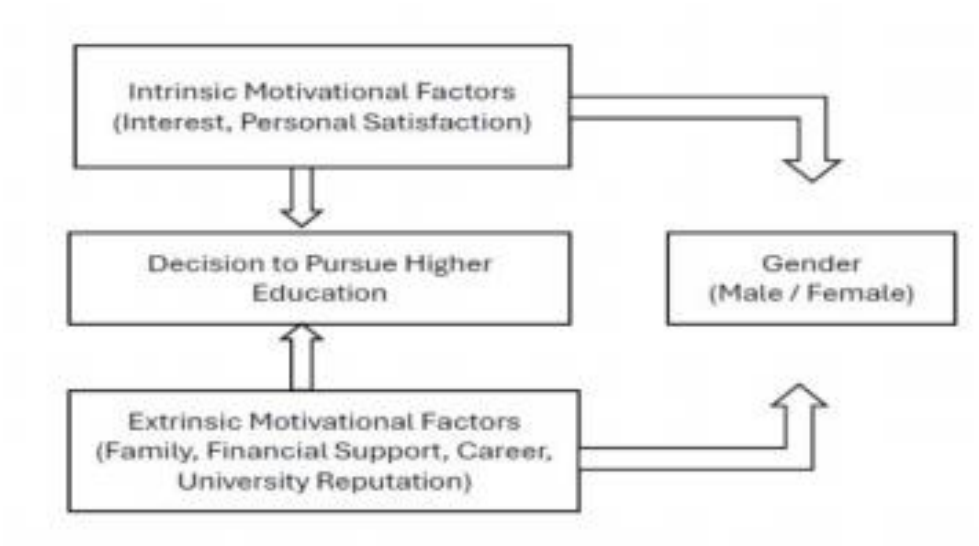

Figure 1:Conceptual framework

METHODOLOGY

Research Design

This research employed a quantitative research design, which focuses on the collection and analysis of numerical data to answer the research questions. Quantitative design is appropriate as the study aims to identify the intrinsic and extrinsic motivational factors among students and examine gender differences in motivation. The design allows statistical analysis to be conducted using the Statistical Package for Social Sciences (SPSS).

Population and Sample

The target population of this study consisted of pre-diploma students and first-semester diploma students from several programmes. The pre-diploma students were the students from the Pre-Diploma in Commerce programme. Meanwhile, the first-year diploma students were of several programmes such as Diploma in Banking, Diploma in Tourism Management, Diploma in Accountancy, and Diploma in English for Professional Communication. All respondents were students from Universiti Teknologi MARA Melaka, Alor Gajah Campus. The sampling technique used in this research was convenience sampling, where participants were selected based on accessibility and willingness to participate. A total of 368 students responded to the questionnaire, and 367 responses were usable for analysis. In terms of gender distribution, there were 254 female students (69.2%) and 113 male students (30.8%).

Instrument

The research utilised a questionnaire as the main instrument for data collection. The questionnaire consisted of two sections. The first section, which is Section A, gathered the students' demographic information. This section collected background information such as gender, programme, level of study, and faculty. On the other hand, Section B of the questionnaire is related to motivational factors. The section included several items

designed to identify factors influencing students' motivation to pursue higher education during the pre-academic period. The items reflected both intrinsic motivational factors, such as students' interest in their chosen field of study and their desire to achieve academic success, as well as extrinsic motivational factors, including family encouragement, financial support, institutional reputation, and future career opportunities.

3.4 Validity of the Instrument

The questionnaire used in this study was designed to gather information regarding factors that influence students' motivation to pursue higher education during the pre-academic period. The items were developed to capture both internal motivational factors, such as personal interest in the chosen field of study and the desire to achieve academic success, as well as external motivational factors, including family encouragement, financial assistance, institutional reputation, and future career opportunities.

Content validity was ensured by aligning the questionnaire items with the research objectives and the conceptual distinction between intrinsic and extrinsic motivation as described in Self-Determination Theory developed by Deci and Ryan in 1985, which proposes that people are inherently driven to grow, achieve, and succeed. The items were reviewed to ensure clarity and relevance to the context of first-semester university students. As the instrument was designed to identify motivation-related factors rather than to measure a multi-item psychometric scale, reliability analysis such as Cronbach's Alpha was not conducted. The items were treated as independent indicators of motivational influence rather than components of a composite scale.

3.5 Data Collection Procedure

The data collection process was conducted online using Google Forms which facilitated systematic data collection and minimised missing responses. The questionnaire link was distributed to first-semester pre-diploma and diploma students from several programmes at UiTM Alor Gajah campus. Students were informed about the purpose of the study and were assured that their responses would remain confidential and used only for academic research purposes. Participation in the survey was voluntary. The responses were automatically recorded in a spreadsheet and later exported for statistical analysis.

Data Analysis

The collected data were analysed using the Statistical Package for Social Sciences (SPSS). Two types of statistical analyses were employed in this study: descriptive statistics and inferential statistics. Descriptive statistics were used to summarise and describe the characteristics of the respondents and the motivational factors influencing their decision to pursue higher education. Specifically, frequency and percentage distributions were used to present the demographic profile of the respondents as well as the intrinsic and extrinsic motivational factors identified in the survey. Inferential statistics were also conducted to examine whether there were statistically significant differences between male and female students in terms of intrinsic and extrinsic motivational factors. A Chi-square test was used to determine whether gender was associated with differences in the motivational factors influencing students' decision to pursue higher education.

FINDINGS

Demographic Profile

A total of 367 students participated in this study. The respondents consisted of pre-diploma and first-semester diploma students from several programmes at the university. Table 1 presents the gender distribution of the respondents:

Table 1: Gender distribution among respondents

Gender	Frequency	Percentage
Male	113	30.80%
Female	254	69.20%
Total	367	100%

The data indicate that female students represent the majority of the respondents, accounting for 69.2% of the sample, while male students constitute 30.8%. This distribution suggests that female students were more represented in the survey responses.

Intrinsic Motivational Factors Influencing Generation Z Students

Intrinsic motivation refers to motivation that arises from internal interest, enjoyment, or personal satisfaction in

engaging with a particular activity or field of study. The findings indicate that interest in the field of study is an important intrinsic factor influencing students' decision to pursue higher education. A total of 215 students (58.6%) reported that their decision to continue their studies was influenced by their interest in their chosen field of study. Meanwhile, 152 students (41.4%) did not identify personal interest as the main motivating factor. This suggests that personal interest plays a significant role in motivating many Generation Z students to pursue higher education. The findings indicate that intrinsic motivational factors, particularly students' interest in their chosen field, contribute to their decision to enrol in university programmes. Therefore, the research question, "What intrinsic motivational factors influence Generation Z students to pursue higher education?" can be answered as follows: Interest in the field of study emerged as a key intrinsic motivational factor influencing Generation Z students' decision to pursue higher education.

Extrinsic Motivational Factors Influencing Generation Z Students

Extrinsic motivation refers to motivation that is influenced by external factors, such as family encouragement, financial assistance, institutional reputation, and future career opportunities. The findings show that 246 students (67.0%) reported that external influences played an important role in motivating them to pursue higher education. These influences include family encouragement, financial assistance, career prospects, and the reputation of the university. In contrast, 121 students (33.0%) indicated that such external factors were not the primary reasons influencing their decision to continue their studies. These results suggest that extrinsic motivational factors play a significant role in shaping students' decisions to pursue higher education. External support systems and future career opportunities appear to be important considerations for many students. Thus, the research question, "What extrinsic motivational factors influence Generation Z students to pursue higher education?" can be addressed as follows: Family encouragement, financial support, career opportunities, and institutional reputation were identified as important extrinsic motivational factors influencing Generation Z students' decision to pursue higher education.

Gender Differences in Intrinsic and Extrinsic Motivational Factors

To address the third and fourth research questions, a Chi-square test of independence was conducted to examine whether there were significant differences between male and female students in terms of intrinsic and extrinsic motivational factors influencing their decision to pursue higher education.

Gender Differences in Intrinsic Motivational Factors

A Chi-square test was performed to determine whether there was a significant association between gender and intrinsic motivational factors, particularly students' interest in their chosen field of study. The results are demonstrated in Table 2:

Table 2: Intrinsic Motivation and Gender

Gender	Yes	No	Frequency
Male	67	6	113
Female	148	106	254
Total	215	152	367

Gender Chi-square test result:

- $\chi^2=0.005$
- $p=0.945$

Since p > 0.05, there is no statistically significant difference between male and female students in terms of intrinsic motivation. The results of the analysis indicated that there was no statistically significant association between gender and intrinsic motivational factors. This suggests that both male and female students were similarly influenced by their interest in their chosen field of study when deciding to pursue higher education. Therefore, the research question, "Is there a significant difference in intrinsic motivational factors between male and female students?" can be answered as follows: There is no significant difference between male and female students in terms of intrinsic motivational factors influencing their decision to pursue higher education.

Gender Differences in Extrinsic Motivational Factors

A Chi-square test was also conducted to determine whether there was a significant association between gender and extrinsic motivational factors influencing students' decision to pursue higher education.

Table 3: Extrinsic Motivation and Gender

Gender	Yes	No	Frequency
Male	74	39	113
Female	172	82	254
Total	246	121	367

Chi-square test result:

- $\chi^2=0.090$
- $p=0.765$

Since p > 0.05, there is no statistically significant difference between male and female students in terms of extrinsic motivation. The findings indicate that no statistically significant association was found between gender and extrinsic motivational factors. This means that male and female students were similarly influenced by external factors such as family encouragement, financial support, career opportunities, and institutional reputation. Thus, the research question, "Is there a significant difference in extrinsic motivational factors between male and female students?" can be answered as follows: There is no significant difference between male and female students in terms of extrinsic motivational factors influencing their decision to pursue higher education.

DISCUSSION

The findings of this study provide critical insights into the motivational drivers of Generation Z students in higher education. The results highlight Generation Z as a generation that balances personal passions with intense pragmatism. In terms of intrinsic motivation, the results revealed that 58.6% of students are driven by a personal interest in their chosen field of study. This aligns with the understanding that Generation Z students are highly self-directed "self-educators" who naturally gravitate towards subjects they are curious about, often using digital tools to independently research and explore their passions (Giunta, 2017). Their desire to find personal satisfaction in learning demonstrates that intrinsic drive remains a foundational element of their academic engagement.

However, extrinsic motivation emerged as the more dominant force, with 67.0% of students citing external influences such as family encouragement, financial assistance, institutional reputation, and future career opportunities as their primary drivers. This strong extrinsic orientation accurately reflects the pragmatic nature of Generation Z. This is also aligned with the findings from Sohar et al. (2026), where they found in their research that parents' encouragement and the desire to land better jobs are the main extrinsic motivational factors for Generation Z in Malaysia. Having grown up during times of economic complexity and rapid technological shifts, this cohort is highly focused on securing "sensible" careers, stability, and financial security (Düzenli, 2021). They are acutely aware of the rising costs of tuition and the burden of student loan debt, which has even driven a notable portion of their generation towards vocational training and "earn while

you learn" apprenticeships (Krawcke, 2024). Consequently, they view traditional higher education not just as a place for intellectual growth, but as a strategic, transactional pathway to secure social mobility and a stable career.

Interestingly, the study found no statistically significant differences between male and female students in either intrinsic (p=0.945) or extrinsic (p=0.765) motivational factors. While some prior literature, such as Brouse et al. (2010), suggested females possess higher intrinsic motivation, these current findings align more closely with Naz et al. (2020), who found no significant gender disparity. This indicates that the pragmatic drive for career stability and the intrinsic need for personal interest are universal generational traits for Gen Z, transcending gender boundaries in this educational context.

CONCLUSION

This research establishes that Generation Z's decision to pursue higher education is a calculated blend of both internal passions and external pragmatic realities. While a strong intrinsic interest in their field of study remains vital to keeping them engaged in the classroom (58.6%), extrinsic factors such as career prospects, financial stability, and institutional reputation are ultimately the stronger catalysts (67.0%) driving their enrollment. Furthermore, the lack of significant gender differences in these motivational factors indicates a unified generational mindset. Both male and female Generation Z students are approaching higher education with the same strategic lens. They demand that their educational investments yield tangible career outcomes while simultaneously allowing them to pursue fields they find genuinely interesting. Understanding this dual motivation is essential for institutions seeking to attract, engage, and retain this new cohort of learners.

IMPLICATIONS AND RECOMMENDATIONS

Based on the findings, several key implications and recommendations emerge for higher education administrators and educators. Since extrinsic motivations heavily influence Generation Z, universities must clearly communicate the return on investment (ROI) of their degree programmes. Institutions should actively promote job-oriented training opportunities, robust career counselling, and direct connections to partner employers or industries(Szabó,2021). Highlighting internships, practical laboratory work, and dual-training programmes will appeal to their desire for career stability and practical application. Besides, Generation Z exhibits notable distrust towards higher education regarding price and whether institutions will truly "do right by their students" (Knott, 2022). Therefore, universities must prioritize transparency in pricing, financial aid and career outcomes to earn this generation's trust.

Furthermore, to nurture students' intrinsic motivation, which is essential, educators must shift away from traditional, passive lecturing. Generation Z learns best through active engagement, visual materials, and technology-integrated environments. Instructors should break down materials into short, visual sequences ("chunking") to match their shorter attention spans and preference for instant gratification. Integrating tools like mobile applications, virtual gamification, and problem-based collaborative projects will keep these students highly engaged (Düzenli, 2021). Lastly, Generation Z is deeply motivated by the relationships they have with their instructors; as noted in previous research, "If they don't care, I don't care" (Cickovska, 2022, p. 54). Educators must demonstrate approachability, provide rapid and frequent feedback on assignments, and show genuine enthusiasm for their students' success. Building a supportive, transparent, and responsive classroom environment is critical to sustaining their intrinsic drive (Cickovska, 2022).

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