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# Transitioning to College: Common Struggles and Distinct Challenges Faced by K-12 Graduates

Ronica M. de Leon<sup>1</sup>, Rowena T. Badua<sup>2</sup>, Christian O. Ducusin<sup>3</sup>, Geezel Rosvie V. De Torres<sup>4</sup>, Randulph I. Navasca<sup>5</sup>, Avelina C. Visaya<sup>6</sup>

1,2,3,4,5,6, Don Mariano Marcos Memorial State University, Mid-La Union Campus, College of Graduate Studies, San Fernando City, La Union, 2500 Philippines

1 rmasangkav@dmmmsu.edu.ph

### Abstract The tran

The transition to college presents a multitude of challenges for first-year students as they navigate a new academic environment. Common difficulties include personal, emotional, academic, and financial struggles, with notable variations in severity based on socioeconomic background. Financial and academic challenges are particularly pronounced among students from lower-income families, while those enrolled in programs outside their preferred field face heightened academic challenges. To support first-year students in their adjustment, higher education institutions are encouraged to strengthen mental health services, provide workshops on emotional intelligence, implement remedial and review programs, and offer additional financial assistance alongside financial literacy education. These targeted initiatives aim to mitigate student hardships and foster a smoother progression through tertiary education.

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#### INTRODUCTION

The transition from high school to college represents a pivotal stage in a student's academic journey, marked by challenges that shape their preparedness for higher education. In the Philippines, this transition has been significantly impacted by the implementation of the K to 12 curriculum, which aims to improve education quality and align national standards with global benchmarks (UNESCO, 2017). As a reform designed to enhance the academic foundation and workforce readiness of students, the program extends primary and secondary education from ten to thirteen years, fostering specialization and skill development that equips learners to thrive in an increasingly technical and knowledge-driven economy (United Nations, 2015).

The two-year senior high school program enables students to pursue academic and career-specific tracks tailored to their interests and aspirations, strengthening competency-based education while supporting sustainable economic growth through a more skilled and adaptable workforce. By facilitating lifelong learning opportunities, this educational framework aligns with Sustainable Development Goal (SDG) 4: Quality Education, which advocates for inclusive, equitable, and accessible education for all (United Nations, 2015). Given its substantial influence on student development and college readiness, understanding the distinct challenges faced by K-12 graduates during their first year of higher education is essential in formulating institutional strategies that foster a seamless transition, promote student retention, and contribute to the overall improvement of education systems.

Under this structure, students will have choices of tracks to pursue, such as the Science, Technology, Engineering, and Mathematics (STEM) track, designed to foster the critical skills essential to achieving success in these fields. Students can, on the other hand, choose to be in other non-STEM tracks, like Humanities and Social Sciences (HUMSS), General Academic Strand (GAS), or Accountancy, Business, and Management (ABM). Each track has specific competencies corresponding to college programs and career pathways. Among those tracks, one would like to explore STEM because most aspiring individuals plan to pursue careers in science and technology. This initiative supports the general global trends emphasizing acquiring a competent workforce in STEM fields, which is essential for any nation's development and growth.

The Department of Science and Technology has been an ardent champion of STEM education in the Philippines. DOST initiatives promote STEM courses as essential in helping national development and economic growth, keying in on the need for a workforce skilled in science and technology.

As part of advancing innovation, the DOST has promoted STEM education, encouraging students to take these courses through various initiatives and scholarships. In a more comprehensive national strategy, this push is part of the efforts to expand graduates in these fields, which are critical in driving innovation and solving societal problems. However, while encouraging more students to take STEM courses is commendable, questions are also thrust upon how prepared these students were in transitioning from the K-12 STEM track into college STEM courses vis-a-vis their non-STEM peers.

The Philippine K to 12 curriculum has significantly redrawn the country's landscape, particularly in the case of the STEM track for students. Students who take the track for STEM are exposed to rigorous curricula laid on with a concentration on analytical and critical thinking skills, as well as mathematical proficiency and essential scientific principles that make the students capable of handling the complexities of their disciplines upon entry into college. Even so, most STEM graduates face distinctive challenges that characterize their first year in college - challenges that adversely impact their academic performance and overall adjustment to the college environment.

The other way around, students pursuing non-STEM routes also need help. While more and more students in high school now choose to apply for college courses that are not in the STEM programs, such courses often carry disciplines in the humanities and social sciences, which, as said earlier, are less demanding than those set by STEM programs. Nonetheless, in preparing for the college transition, both will face similar daunting

challenges; otherwise, they need more preparedness in the critical thinking and analytical skills emphasised in STEM courses.

Though all these progressions have been made, there are still challenges faced by the STEM and the non-STEM graduates as they advance to their first college year. Further research has indicated that students in STEM fields tend to outperform their non-STEM peers because of the intense training they receive in mathematical ideas and problem-solving skills (Bautista et al., 2021). As can be seen from the following example, one comparative study reported that the average grade of STEM students in College and Advanced Algebra was 1.75, while that for the non-STEM students was 2.14 (Bautista et al., 2021). This raises questions about the preparedness of non-STEM graduates for college-level courses that demand solid analytical skill sets.

One of the significant challenges that STEM graduates face during their first year is the academic rigor that characterizes college-level courses. Several students find higher education demanding and out of their expectations, leaving them feeling inadequate and anxious. The transition often pertains to a learning environment that requires more independence, self-discipline, and time management skills. For students of STEM, this can be highly overwhelming since they are expected to handle much more complex subjects that significantly depend on the foundational knowledge acquired in high school.

Furthermore, the K-12 program sparked controversies about whether this curriculum was enough to prepare students for their chosen careers. Analysis indicates that most non-STEM graduates need help adjusting to the demands of college studies, especially mathematics and other related courses (Dela Cruz et al., 2023). The low retention rate may be primarily due to the mismatch of readied college expectations within the K-12 curriculum.

Contrarily, non-STEM graduates face challenges anchored in the contrast in curricular focus. For example, most students in arts and social sciences are trained to apply a different style of critical analysis and form of research methodology than their peers in STEM. It becomes hard for them to cope with expectations from their field, especially considering they need to prepare better in senior high school.

There is evidence that the challenges college students face in their first year are very context-dependent, depending on their prior educational experience and academic major. As an illustration, there is considerable evidence that STEM students often report significant math anxiety and fear of failure regarding more challenging science and math courses (Daker, 2019). Such anxiety may have a bearing on their academic outcome and college life in general, making the college an inevitable drop-out point for many students who cannot cope with the effects of these programs.

The psychological reasons affecting students' performance while progressing to college are also ignored. Usually, the transition to college would be a stressful and isolating period of uncertainty, and hence more severe for those students who experience little or no basic supportive structures. Pressure in such an environment will worsen the feelings of STEM graduates, causing problems that include burnout and mental health issues (Badmus, 2023).

On the other hand, non-STEM graduates have to face the challenges posed by perceived low value associated with the fields they chose. Society has deemed STEM education more valuable and emphasised than any other field. Students opting for non-STEM courses must deal with negative public perceptions of their course of study. This could reflect on their self-perception and translate into lower academic performance in college. Promoting STEM education in the Philippines is not only a trend but is also related to the labor market demand worldwide. As industries become more dependent on technology and innovation, the need for a skilled workforce in STEM fields has never been greater. The government of the Philippines knows that and has set out to make good strides in promoting STEM education on different levels within its academic system.

However, this push still poses essential questions about such programs' effectiveness in preparing students for the realities existing in college.

External factors, including socioeconomic status, play a vital role at this level, directly and indirectly. Students from less affluent families face more barriers as they transition to college. They often need access to facilities such as after-school tutoring programs, extracurricular programs, or structured learning environments. Such factors will impact their potential for success in college regardless of whether they are from a non-STEM or STEM track.

The case of Don Mariano Marcos Memorial State University - North La Union Campus (DMMMSU-NLUC) in Bacnotan, La Union, reflects in one sense the complexities of transition facing incoming freshman students, especially those who joined under STEM and non-STEM courses. For incoming science, technology, engineering, and mathematics (STEM) majors, scientific and technical rigorous learning must be taken which builds heavily on mathematical and science backgrounds. Non-STEM students, however, have a different challenge that often centers around adapting to the diverse nature of academic disciplines, emphasizing critical thinking, communication, and social sciences. These differences notwithstanding, common challenges that face both groups include adapting to new learning environments, managing academic workloads, developing time management skills, and social and emotional adjustments.

This study aims to explore these challenges in depth and identify the specific difficulties freshman students experience in both STEM and non-STEM programs and how these difficulties affect their academic performance, personal growth, and overall college experience. The research will focus on the unique and shared experiences of these students in order to provide valuable insights into the broader implications of the K-12 transition, with recommendations for improving student support services, curriculum design, and institutional policies in higher education.

Understanding the challenges faced by freshman students at DMMMSU-NLUC is not only important for individual success but also for continuous program and service improvement within the university. The research identifies critical factors that determine why and how students fail or succeed so that the gap between high school and college is better bridged for K-12 graduates to prepare them more adequately for higher education. Educators and policymakers can better guide students to make appropriate decisions for their future academic paths by looking at specific difficulties at each track. At the same time, the STEM fields are critical, and the non-STEM fields are equally necessary in the overall equation since they provide space for innovation, intellectual workouts, and social consciousness. Therefore, education administrations and authorities need a balanced agenda toward the hard sciences, or STEM for short, and equally focus on the non-STEM courses to build a diversified and productive labor force. This research not only highlights the importance of addressing the needs of both groups but also emphasizes the need for a comprehensive approach to education that prepares students for the realities of the modern workforce.

#### LITERATURE REVIEW

The transition from secondary to tertiary education presents numerous challenges for K-12 graduates, particularly during their first year of college. Studies have explored various factors influencing student preparedness and academic success, shedding light on the common struggles and distinct obstacles faced by these learners.

Vecaldo et al. (2020) examined the academic profile and college preparedness of indigenous K-12 graduates in the Northern Philippines, revealing that a majority of students lacked sufficient readiness for higher education. Their findings indicated variations in preparedness based on the type of senior high school attended and academic track pursued, emphasizing the critical role of both formal education and extracurricular engagement in fostering college readiness. Similarly, Mamba et al. (2020) assessed the college readiness of Filipino K-12 graduates using a criterion-referenced test, discovering that while students exhibited proficiency in language and literature, significant gaps remained in mathematics and science. The study highlighted disparities in college preparedness across different campuses and underscored the importance of curriculum alignment and transition interventions to better equip students for higher education.

Providing a broader perspective, Dizon et al. (2019) analyzed the implementation of the K-12 program in the Philippines, identifying systemic challenges affecting students, educators, and institutions. Their research highlighted key concerns such as financial constraints, curriculum gaps, and the need for enhanced teaching methodologies. Furthermore, the study underscored the role of government initiatives in addressing these difficulties and ensuring a smoother transition for K-12 graduates entering college.

International perspectives further enrich the discourse on college readiness. Baber et al. (2019) explored the role of high school preparation in student success, emphasizing equitable access to resources and support systems. Their study underscored disparities in preparedness across socioeconomic backgrounds, reinforcing the necessity of targeted interventions to bridge these gaps. Meanwhile, Conley (2007) redefined college readiness by broadening its scope beyond standardized assessments and high school coursework. He argued that true preparedness encompasses cognitive strategies, academic proficiency, self-management skills, and contextual awareness—factors essential for thriving in higher education.

Porter and Polikoff (2011) investigated the effectiveness of standardized tests and high school coursework as indicators of college readiness. Their findings suggested that while such assessments provide valuable insights, they fail to fully capture the complexities of student success in higher education. They advocated for a more comprehensive approach to evaluating readiness, incorporating elements such as motivation, study habits, and institutional support. Mijares (2007) conducted a comparative study on the impact of K-12 education reforms on college preparedness, revealing that while the system aimed to enhance student readiness, critical gaps persisted in areas such as independent learning, financial literacy, and critical thinking. The study suggested that remedial programs, mentorship initiatives, and additional support mechanisms could aid in a smoother transition to college life.

Collectively, these studies highlight the shared struggles and distinct challenges faced by K-12 graduates during their first year of college. While academic preparedness varies based on socioeconomic background and institutional support, the research suggests that targeted interventions—such as remedial programs, financial assistance, and curriculum enhancements—are instrumental in improving student outcomes. Addressing these challenges is essential for ensuring a more effective transition from secondary to tertiary education and fostering the long-term success of K-12 graduates.

#### **METHODOLOGY**

This study employs a quantitative, nonexperimental descriptive research design, focusing on the comparative experiences of first-year college students based on their socio-demographic profile, educational background, and reasons for enrolling in their chosen course. By utilizing a descriptive comparative approach, the study aims to identify patterns and variations in student challenges without manipulating variables, ensuring an objective and systematic analysis of real-world conditions (Creswell & Creswell, 2018). The research method allows for a structured examination of multiple dimensions, including academic, financial, social, emotional, personal, spiritual, and family-related difficulties, providing valuable insights into factors influencing students' college transition (Mertler, 2016). Through statistical analysis, this approach contributes to institutional strategies for student support and curriculum development, offering evidence-based recommendations for improving early college experiences.

#### 1. Objective Definition

This study aimed to examine the shared struggles and distinct challenges faced by K-12 graduates during their first year of college. Specifically, it sought to identify and compare the extent of challenges experienced by students based on their socio-demographic profile, educational background, and reasons for enrolling in their chosen course. Through a descriptive comparative approach utilizing a cross-sectional survey, the study intended to provide data-driven insights into the academic, financial, social, personal, emotional, spiritual, and family-related difficulties encountered by first-year college students, contributing to a deeper understanding of their adjustment process and informing institutional strategies for student support and development.

#### 2. Scenario Development

The transition from senior high school to college presents both shared struggles and distinct challenges for K-12 graduates, shaped by socio-demographic factors, educational background, and motivations for course selection. This study sought to systematically identify and compare these challenges using a quantitative, nonexperimental descriptive comparative design, capturing insights from first-year students at Don Mariano Marcos Memorial State University, North La Union Campus. By employing a cross-sectional survey, the study aimed to highlight patterns in academic preparedness, financial constraints, emotional stability, and social integration. The structured methodology enabled a comprehensive assessment of how students' backgrounds influence their ability to adapt, forming a basis for institutional interventions that improve student engagement and success. Results will contribute to academic policies, student support programs, and retention strategies, ensuring universities provide a well-rounded approach to college transition and early-year adjustment.

#### 3. Step-by-Step Execution

To systematically investigate first-year challenges faced by K-12 graduates, the study began with a research design formulation, defining the scope and methodology. A validated questionnaire (Dagdag et al., 2019) was adopted, ensuring high reliability (0.947) and covering seven dimensions of challenges. Purposive sampling was applied to select 138 respondents, ensuring representation across senior high school strands and socio-demographic backgrounds. The cross-sectional survey was conducted at a single point in time, capturing their initial struggles. Responses were gathered following ethical protocols, including informed consent and confidentiality. Data was processed using median, frequency, percentage, mean, and the Mann-Whitney U Test, with computations performed via Jamovi software. Findings were carefully analyzed to identify variations in student experiences, forming recommendations for financial aid programs, academic mentoring, career guidance, and student wellness initiatives. The results were synthesized into a comprehensive research report, informing policy enhancements and institutional strategies for improved student engagement and retention.

**4. Data Collection** The data collection process for this study involved administering a validated questionnaire to first-year college students enrolled at Don Mariano Marcos Memorial State University, North La Union Campus. Using purposive sampling, 138 respondents were selected to provide diverse insights into their academic, financial, social, emotional, personal, spiritual, and family-related challenges during their first year of college. A cross-sectional survey was conducted, ensuring that responses reflect students' experiences at a single point in time. The questionnaire, adopted from Dagdag et al. (2019) with a reliability index of 0.947, consists of seven dimensions, each with 15 items, effectively capturing the extent of challenges encountered. Additional socio-demographic data, including age, sex, SHS strand, family income, course selection reasons, and other relevant factors, were gathered. The responses were statistically analyzed using median, frequency, percentage, mean, and Mann-Whitney U Test, with computations performed in Jamovi software. Ethical considerations, such as informed consent and confidentiality, were strictly observed throughout the data collection process to ensure the integrity and reliability of the findings

#### RESULTS & DISCUSSION Challenges

Challenges	Percentage	Rank
Academic	77.5	3
Family	33.3	7
Financial	65.2	4
Social	37.0	6
Personal	83.3	1
Emotional	79.0	2
Spiritual	42.8	5

Table 1. Challenges Faced by First-Year College Students

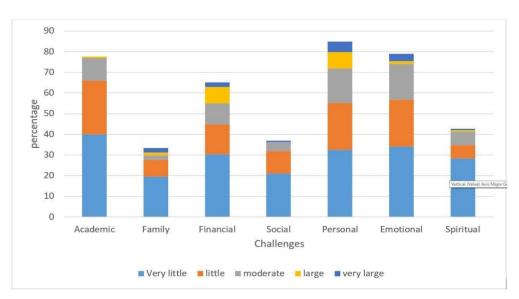


Figure 1. Extent And Distribution of Challenges Faced by First-Year College Students

The graph reveals that students face various challenges during their first year of college, with varying degrees of intensity. The most common issue experienced by 83.3% of students is personal problems. This is followed by emotional (79%) difficulties and academic (77.5%) concerns. This supports the study of Bulo and Sanchez (2014) which showed that the top three common sources of stress among college students are intrapersonal, interpersonal and academic stressors. Based on the collected data, most students face these challenges to a small or moderate extent, while some experience them with high to very high intensity.

The result reflects the difficulty of students in coping with personal challenges which include lack of self-confidence, worries and uncertainty about the future, and stress or feeling overwhelmed by life's challenges. Despite this, 93 % expresses a desire for personal improvement and a goal to evolve into a more positive or competent individual. This shows a person who might be dealing with significant internal struggles, including low self-esteem, anxiety about the future, and trouble navigating personal challenges. However, the desire for improvement is a hopeful sign of self-awareness and motivation to change. It is therefore recommended that higher education institutions should fortify their mental health support services.

Furthermore, students also deal with emotional challenges relating to expression and sensitivity. 86% struggle to communicate their emotions, specifically anger, which may indicate challenges with emotional regulation, interpersonal communication, or vulnerability while 83% are emotionally sensitive which might make students more prone to taking things personally or feeling hurt by others' words or actions. Emotional regulation and communication might be a central challenge, especially for first-year students who may be adjusting to new social, academic, and personal environments. This emotional burden can be intensified by the pressures of the transition into university life. Getting hurt easily from interactions or experience indicates that the individual may be more emotionally reactive. First-year students may face heightened sensitivity due to the pressures of adjusting to college life, navigating new social dynamics, and encountering challenges that push them out of their comfort zones.

This suggests that students may need support in developing better emotional regulation and communication skills. Workshops or counseling services focusing on emotional intelligence, assertiveness, and conflict resolution could be beneficial. Addressing emotional sensitivity and expression issues could also involve access to mental health services, where students can work on self-reflection, processing emotional reactions, and developing healthier ways to express and manage their emotions. They may also need support in building their social skills, particularly in terms of establishing and maintaining relationships, handling conflict, and expressing themselves in a college environment.

With regards to academic challenges, 86% find it hard to understand lessons. 85% admitted that they have poor study habits, 87% experience external distraction through their noisy classmates, 80% lack focus and cannot concentrate on their studies. 90% experience difficulty in speaking English and 83% have difficulty in expressing thoughts and ideas. This reveals that the individual is facing multiple interconnected challenges that affect their academic experience. These challenges stem from personal factors like study habits and language proficiency, as well as external factors such as the classroom environment. Addressing these issues may require a multifaceted approach that includes improving study techniques, enhancing language skills, and creating a more focused learning environment.

Additionally, more than half of the students face financial issues. 86% said that they lack money to provide their everyday needs. This can be attributed to the percentage of surveyed students who belong to poor family. Based on the data, 83% has family monthly income of less than 10, 957 pesos. Chi-square test of association revealed that the association between socioeconomic status and presence of financial challenge among first year students is statistically significant ( $X^2$  (1)=4.81, p=0.028). This suggests that students from lower socioeconomic backgrounds require extra financial support to cover their daily expenses.

Heckman et al. (2014) mentioned in their study that financial stress is prevalent among college students. Sabri and Macdonald (2010) suggest that financial experiences prior to college can lead to negative habits or attitudes toward financial management, which could potentially be corrected through financial education during college. This means that, in addition to extra financial support, students should also be taught how to manage their allowance effectively.

#### **Comparative Analysis**

To investigate on the differences on the level of personal, emotional, academic and financial challenges experienced by freshman, a comparative analysis was done with respect to sociodemographic profile, educational background and reasons for enrolling their course. Since normally distributed data was not obtained, Mann-Whitney U test was utilized.

#### **Personal Challenges**

VARIABLE		Mean	Median	P VALUE
SOCIODEMOGRAPHIC PROFILE	Sex Female	2.10	2	0.434
	Male	2.25	2	
	Socioeconomic status poor not poor	2.16 1.94	2 1.5	0.373
EDUCATIONAL BACKGROUND	Strand Non-STEM STEM	2.10 2.26	2 2	0.505
	Course Non-STEM STEM	1.99 2.44	2 2.5	0.05

Table 2: Comparative Analysis of Personal Challenges

Based on the analysis, students undergo personal struggles with almost similar degrees ranging from very little to moderate extent. Males experience these issues at a higher extent than females. Furthermore, students from low-income families experience a greater degree of personal struggle compared to those with a family income of at least 10,957 pesos. The same applies to students who are STEM graduates or currently enrolled in STEM courses. However, a comparison test revealed that the extent of the challenges is comparable between groups

indicating that regardless of socioeconomic status and educational background, first year students already face personal struggles in their transition to college.

#### **Emotional Challenges**

VARIABLE		Mean	Median	P VALUE
SOCIODEMOGRAPHIC PROFILE	Sex Female Male	1.93 2.08	2 2	0.319
	Socioeconomic status poor not poor	1.99 1.82	2 1	0.435
EDUCATIONAL BACKGROUND	Strand Non-STEM STEM	1.98 1.88	2 2	0.905
	Course Non-STEM STEM	1.99 1.91	2 1.5	0.5

Table 3: Comparative Analysis of Emotional Challenges

As to the emotional problems, the extent is the same for most students. Despite that there are higher values for students who are male, poor, non-STEM graduates and those taking non-STEM courses, comparison tests suggest that there is no significant difference in the level of their emotional struggles indicating that despite these differences in sociodemographic profile and educational background, all these groups undergo emotional challenges.

#### **Academic Challenges**

VARIABLE		Mean	MEDIAN	P VALUE
SOCIODEMOGRAPHIC PROFILE	Sex Female Male	1.68 1.56	2 1	0.434
	Socioeconomic status poor not poor	1.71 1.38	2 1	0.025*
EDUCATIONAL BACKGROUND	Strand Non-STEM STEM	1.66 1.57	1.5 1	.607
	Course Non-STEM STEM	1.57 1.80	1 2	0.224
REASON	Redirected by the institution NO YES	1.61 3	1 3	0.015*

Table 4: Comparative Analysis of Academic Challenges

Regarding academic challenges, no significant differences were observed based on sex and educational background. However, students belonging to lower socioeconomic class experience academic struggles at a significantly higher extent compared to those who are not financially challenged. Likewise, students who are

taking the course due to redirection of the institution experience more academic challenges than those who enrolled for other reasons. The significant difference underscores the need for students to receive the necessary assistance and support to effectively address the issue. To lessen financial burden, strategies such as raising awareness on scholarship grants and initiating student loan programs can be considered by the institution. For the students who are redirected by the institution, remedial or review programs can be given.

#### **Financial Challenges**

VARIABLE		Mean	MEDIAN	P VALUE
SOCIODEMOGRAPHIC PROFILE	Sex Female Male	1.95 2.21	2 2	0.341
	Socioeconomic status poor not poor	2.11 1.45	2	0.01*
EDUCATIONAL BACKGROUND	Strand Non-STEM STEM	2.04 2.00	2 1.5	0.907
	Course Non-STEM STEM	1.97 2.21	1.5 2.0	0.390

Table 5: Comparative Analysis of Financial Challenges

As to the financial struggles of the students, students face problems with almost similar degrees ranging from very little to moderate extent. This is further supported by the result of analysis indicating that there is no significant difference in the intensity of the financial challenge of students between groups except for the cohort of poor and not poor. This implies that despite the difference on the background of students, most of them experience the same level of difficulty with respect to financial problems and students from low socioeconomic background should receive additional financial support.

#### CONCLUSION AND RECOMMENDATION

First-year college students encounter various challenges as they transition into a new academic environment. The most common issues they face are related to personal, emotional, academic, and financial difficulties. Significant differences were observed in the extent of financial and academic challenge to students from different socioeconomic background. Furthermore, students who are not pursuing their preferred course face significantly greater academic challenges than those enrolled in the program of their choice. It is recommended that higher education institutions strengthen their mental health support services, offer workshops or counseling focused on emotional intelligence, implement remedial and review programs, and provide additional financial support and financial education to first-year students. These measures would help reduce their struggles and enable them to successfully continue their tertiary education.

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