



Preferred Academic Programs and College Admission Test Results as Basis for a Student-Centered Tutorial Program

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ABSTRACT :

One of the most important phases of students' academic and professional careers is the transition from secondary to higher education. The college admission test, which assesses students' readiness in core subject areas, is one of the most significant factors in this transition. In addition, students' job objectives and aspirations are reflected in their academic program choice. Thus, this study was conducted to determine the preferred academic programs of the first year and transferee students as well as to assess the result of their entrance admission test. By analyzing performance patterns across different programs, the study identifies critical learning gaps that may hinder students' readiness for higher education. In which, the result served as the basis in proposing student-centered tutorial program in every academic program in the university. This aligns with Sustainable Development Goal (SDG) 4 promoting quality education, which emphasizes ensuring inclusive and equitable quality education and promoting lifelong learning opportunities for all. In which, it reveals that there were incoming college students and transferees who preferred business administration as their academic program. Also, mean score of the students falls on conditional or very low academic performance which then leads to the crafting of the student-centered tutorial programs in partnership with registered student organization and student government body of the university. The said program helps the students in enhancing their academic preparedness, and supporting their pursuit of success in their preferred academic pursuit.

Keywords: *Academic Performance, Academic Program, College Admission Test, Student-Centered Tutorial Program*

INTRODUCTION

Students' academic preparedness and likelihood of success in higher education are largely determined by their transition from secondary to tertiary school. The college admission exam, which assesses competency in several critical academic areas, is one of the most significant indicators of this preparedness.

At the same time, choosing academic program also served as one of the crucial decision they have to make. China's college entrance examination system has undergone significant evolution and reform over several decades. The system serves as a crucial link between universities and high schools, bearing responsibility for defining quality education reform directions and challenging traditional student selection methods (Zhou, 2019). After 40 years of development, the examination system has become deeply embedded in China's social and institutional culture, affecting millions of candidates and parents (Zhou, 2019).

Recent reforms have introduced the "New College Entrance Examination" policy, which encompasses multiple examination systems including the unified national examination, comprehensive reform pilot programs, and independent enrollment reforms (Liao, 2020). These reforms aim to establish scientific and fair examination mechanisms while improving enrollment and admission methods (Zhou, 2019). The system fundamentally aligns with China's college admission culture and is expected to continue long-term with ongoing modifications (Liu, 2015). Reform directions emphasize diversification while ensuring equitable access to higher education opportunities, particularly for students from rural and disadvantaged backgrounds (Liu, 2010).

In college program choices, familial and financial factors, as well as students' interests and prior academic tracks were seen to a significant factors for incoming first-year students (Del Rosario et al., 2024). The implementation of the K-12 program has led students to select specializations earlier, with many freshmen coming from the Accountancy and Business Management (ABM) strand and pursuing related college courses, often motivated by personal choice and family background (Sumayan, 2024). In health sciences, students from the STEM strand demonstrate higher academic adjustment and performance, indicating that senior high school strand plays a moderating role in academic success (Alipio, 2020). For teacher education, candidates are predominantly female, from public schools, and prefer secondary education programs, especially in English, Mathematics, and Social Studies, though admission remains highly competitive (Cacho & Villamor, 2018). Some selective institutions have returned to requiring test scores, citing research indicating that test scores best serve diversity and academic success goals (Camara, 2024).

Additionally, Cabatingan & Lee (2024) found a moderately significant correlation between admission test results and academic performance among Midwifery students, with most students scoring in Stanine 3 and achieving satisfactory ratings in professional subjects. Groene et al. (2021) developed reliable online selection tests for midwifery programs in Germany, finding that cognitive ability tests showed predictive validity for first-year exam performance ($r = 0.31$, $p < 0.05$). Meanwhile, Reyes et al. (2024) assessed Teacher Education students and found that admission test results were below institutional criteria, suggesting the need for enhanced admission policies to accommodate more applicants. On the other hand,

academic outcomes show promise, as Felicen (2023) demonstrated that Hotel and Restaurant Administration students achieved the 75% performance target across all professional courses from 2013-2017, successfully developing hospitality, technological, communication, and research skills. Regarding career influences, Lee et al. (2018) found that traditional factors like advisors, mentors, parents, and faculty members have greater impact on hospitality students' career decisions than social media, despite this generation's digital engagement.

Furthermore, Mengash (2020) analyzed computer science students from 2016-2019, finding that Scholastic Achievement Admission Test scores were the most accurate predictor of future performance, with Artificial Neural Networks achieving 79% accuracy. Similarly, Alejandrino (2020) examined IT students using C4.5 and Naïve Bayes algorithms, demonstrating that admission test results and high school academic data significantly influence first-year performance, with C4.5 achieving 98.64% accuracy. Ballaho (2024) developed ensemble models combining Support Vector Machine, Decision Tree, and Neural Network techniques, identifying factors like high school GPA, college entrance test scores, and class rank as significant predictors of programming course success.

A misalignment between program preference and academic preparedness often creates barriers that may hinder retention, performance, and overall achievement in higher education. Prior to or during a student's academic journey, colleges and universities recognize the value of offering interventions to address their learning gaps. In doing so, identifying subject areas where students require additional support, the research contributes to the development of targeted tutorial interventions that foster academic competence, improve performance, and promote student success in alignment with their preferred academic programs. It is found to be one of the best ways to reinforce fundamental information.

Thus, this study was conducted to determine the preferred academic programs of the incoming first-year and transferee students and to analyze the result of their entrance examination as a basis for developing a student-centered tutorial program.

Objectives of the Study

This study aims to determine the preferred academic programs of the incoming first-year and transferee students and to analyze the result of their entrance examination as a basis for crafting an intervention plan.

Specifically, this aims to:

1. Determine the preferred academic program of the students;
2. Described the result of their college admission test;
3. Assess their preferred academic programs and mean test scores across key areas;
4. Examine the significant difference on the result of the college admission test when students were grouped as to their preferred academic program; and
5. Craft an intervention plan based on the result of the study.

Conceptual Framework

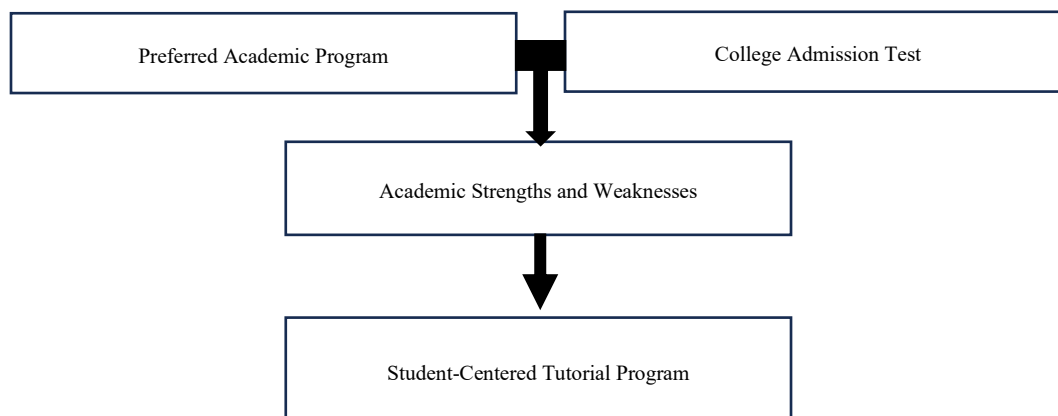


Figure 1 shows the conceptual framework of the study

In this study, preferred academic program are the programs that the students want to pursue, whether it is their personal interest, familial choice, aspirations or career goals. College admission test determines their academic readiness with different key areas like general information, filipino, english, science and mathematics. With these, the result analyzes the strengths and weaknesses of the students which leads to the development of the student-centered tutorial program which can helps students in enhancing their academic journey as they go through their chosen career.

METHODOLOGY

This study utilized quantitative approach, specifically, a descriptive-comparative. It is descriptive for it determine the preferred academic program of the students and described their academic performance based on the result of their college admission test. Also, it is comparative, for it seek to determine if significant difference exist on the result of their test when considering their preferred academic program.

Incoming first-year students and transferees were the respondents of this study and gathering of data were taken during their admission process at Quirino State University-Cabaroguis Campus (QSU-C) A.Y. 2025-2026 first semester. The instrument used was the standardized test of the university consisting 30 items for general information, 60 items for English and Science and 50 items for Filipino and Mathematics.

Statistical Treatment of Data

Frequency and Percent - Frequency tells how many times each value appears while percent is a way to express a part of a whole as a fraction of 100, percentages are often used to provide a relative understanding of the distribution of data. These were used in the distribution of data as to preferred program of the respondents.

Mean – is a measure of central tendency that represents the average value of a set of data. It was used to described the average percent scores of the students in their admission test.

Table 1. Mean Percent Scores

Interval	Description
91.50 – 100	Excellent
85.50 – 91.49	Very Satisfactory
82.50 – 85.49	Satisfactory
74.50 – 82.49	Fair
69.50 – 74.49	Conditional
0 – 69.49	Failure

Source: QSU Student Manual

ANOVA – used to test significant difference on the result of the admission test when students were grouped as to their preferred academic program.

RESULTS AND DISCUSSION

The details included in this section include findings and statistical analysis associated to the objectives of the study.

Part 1. Preferred Academic Program

Table 2. Preferred Academic Program of the Students

Preferred Courses	Frequency	Percentage
BSCE	178	19.4 %
BSHM	60	6.5 %
BSCS	109	11.9 %
BAELS	31	3.4 %
BEED	77	8.4 %
BS Mathematics	9	1.0 %
BS Midwifery	130	14.2 %
BS Entrepreneurship	39	4.3 %
BSBA	284	31.0 %
Total	917	100%

The table above shows that the most preferred academic program among first year and transferee students is Bachelor of Science in Business Administration (BSBA) with 31% (284) of the total. This is followed by Bachelor of Science in Civil Engineering (BSCE) with 19.4% (178) students and Bachelor of Science in Midwifery (BS Midwifery) with 14.2% (130) students. Other courses with notable preference include Bachelor of Science in Computer Science (BSCS) at 11.9% (109) and Bachelor of Elementary Education (BEED) at 8.4% (77). Meanwhile, fewer students chose programs such as BS Hospitality Management (BSHM) at 6.5% (60), BS Entrepreneurship with 4.3% (39), and BA in English Language Studies (BAELS) with 3.4% (31). The least preferred program was BS Mathematics, with only 1.0% (9). This implies that students tend to favor programs in business, engineering, and health-related fields over mathematics and language-focused courses.

Barahan et al. (2022) found that academic factors, passion, and talents significantly affect course preferences among first-year students in management and entrepreneurship, while socio-economic and family background factors were less influential. Zyberaj et al. (2025) similarly identified social and emotional supports, especially parental influence, as significant predictors of academic program preferences, with intrinsic motivation and individual interest also playing important roles. Lang (2011) demonstrated that students tend to select majors aligned with their worldviews, with differences in environmental attitudes and behaviors observed across academic programs, influenced by gender, political ideology, and financial security. Smith (2002) explored first-year students' preferences for academic advising, finding a preference for prescriptive advising, and suggested that advising should be viewed as a developmental process. Collectively, these studies emphasize the multifaceted nature of academic program selection, shaped by personal, social, and demographic factors.

Part 2. College Admission Test Result

Table 3. College Admission Test Result Description

	Mean	SD	Description
Gen Info	74.90	6.77	Fair
Filipino	77.10	4.85	Fair
English	72.30	3.65	Conditional

	Mean	SD	Description
Science	67.50	5.00	Failure
Mathematics	66.00	7.79	Failure
Overall	71.56	5.61	Conditional

Legend: 0 – 69.49 = Failure; 69.50 – 74.49 = Conditional; 74.50 – 82.49 = Fair; 82.50 – 85.49 = Satisfactory; 85.50 – 91.49 = Very Satisfactory; 91.50 – 100 = Excellent.

Table above shows the result of the college admission test where students were described to be conditional where the mean percent score is 71.56 which is very low. It can be noted also that they may be fair in general information and Filipino (noting the highest yet still low MPS) but conditional on English and with the lowest 67.50 and 66 MPS (lowest) for Science and Mathematics respectively, which falls under failure. This result indicates that students are not yet fully prepared for college-level work.

Similarly, assessment studies show concerning trends, with one Philippine institution finding that majority of college admission test results fell "below the admission criteria," prompting policy enhancement recommendations (Reyes et al., 2024). Gender differences in test performance persist, with meta-analytic evidence showing systematic underprediction of women's academic performance and overprediction of men's performance, though these effects are small (Fischer et al., 2013). The transition from mandated to test-optional admissions continues to generate debate about optimal assessment approaches (Middleton et al., 2024).

Part 3. Preferred Academic Programs and Mean Percent Scores Across Key Areas

Table 4. Preferred Academic Programs and Mean Test Scores Across Key Areas

Preferred Courses	Gen Info	Filipino	English	Science	Math
BSCE	76.3	77.6	73.0	68.5	67.5
BSHM	75.1	76.9	71.7	67.6	66.0
BSCS	74.5	77.0	71.9	67.2	65.8
BAELS	74.1	76.0	72.4	68.2	65.6
BEED	76.1	78.6	72.4	67.0	66.9
BS Mathematics	75.7	75.1	70.7	67.2	63.1
BS Midwifery	74.7	76.7	72.2	67.4	66.0
BS Entrepreneurship	75.9	77.7	72.2	67.5	63.6
BSBA	74.0	76.8	72.3	67.2	65.5

As show above, students' admission test performance differs slightly depending on their preferred academic program. Those who chose BEED scored the highest in Filipino (78.6), while BSCE students performed best in English (73.0), Science (68.5), and Mathematics (67.5). For General Information, BSCE (76.3) and BEED (76.1) obtained the highest scores. On the other hand, the lowest scores in Mathematics were seen among BS Mathematics (63.1) and BS Entrepreneurship (63.6), which is notable since mathematics should be a core strength for BS Mathematics students. Similarly, BS Mathematics (70.7) had the lowest score in English, while BAELS (65.6) and BSCS (65.8) recorded some of the lowest results in Mathematics as well. While most programs show fair performance in General Information and Filipino, weaknesses are evident across Science and Mathematics, highlighting the need for stronger academic support in these key areas.

Rohr (2012) demonstrated that both college preparatory GPA and SAT scores significantly predict retention rates among science, technology, engineering, mathematics, and business students, with each GPA point increase more than doubling retention odds. However, implementation challenges exist. Reyes et al. (2024) found that College of Teacher Education students' admission test results fell below institutional criteria, suggesting need for policy enhancement to accommodate more applicants for the program. Additionally, Bhuvanewari (2020) revealed concerning adjustment issues among college students, with 50% showing unsatisfactory educational adjustment and significant test anxiety levels, though no significant differences were found between engineering and arts students in either test anxiety or educational adjustment measures.

Part 4. Test of significant Differences on the Result of College Admission Test when students were Grouped as to their Preferred Academic Program

Table 5. Test of significant Differences on the Result of College Admission Test when students were Grouped as to their Preferred Academic Program

Key Areas	F	p	Decision
Gen Information	2.09	0.042	Reject Ho
Filipino	1.85	0.074	Failed to Reject Ho
English	1.29	0.257	Failed to Reject Ho
Science	1.14	0.340	Failed to Reject Ho
Mathematics	2.19	0.032	Reject Ho

p-value of 0.05 and below is significant and above 0.05 is not significant

As shown above, the college admission test result has no significant difference across the preferred different programs, specifically on Filipino, English and Science, since the computed p-value were greater than 0.05. However, there is a slight significant difference on the result on the General

information and Mathematics areas since the computed p-values of 0.042 and 0.032 respectively were below 0.05. Students' chosen program influenced how they performed in these two key areas. This implies that, while program preference may play a role in how students prepare for certain subjects, particularly in General Information and Mathematics, performance in other areas appears consistent across programs.

Clustering analysis of entrance exam scores, combined with demographic data such as chosen course and SHS track, can support more accurate course placement decisions (Alegre et al., 2024). Studies show that students from the STEM strand consistently outperform peers from other strands in science-related and health sciences programs, with significant differences in academic performance and adjustment (Rubas, 2023; Alipio, 2020). These findings suggest that SHS strand should be considered in admissions, especially for science-oriented courses, and that bridging programs may benefit non-STEM students (Rubas, 2023). Additionally, English proficiency test results reveal significant differences when students are grouped by academic program, though not by sex (Casta & Cachuela, 2017).

CONCLUSIONS AND FUTURE WORKS

Students' performance in the college admission test varied across subject areas and preferred academic programs. In which, students choosing Bachelor of Science in Civil Engineering (BSCE) performs best while students choosing Bachelor of Science in Mathematics performs as the lowest among the different programs. The results indicate a clear mismatch between students' chosen programs and their academic preparedness, especially in core areas needed for success in higher education.

A needed intervention must address the weaknesses shown on the result of the study specially on Mathematics and Science areas. Academic support like tutorial program could be of great help in addressing this concern.

Student leaders of certain academic program may consider initiating tutorial program in their respective programs together with the help of the students' officers in the whole university.

The institution may also consider allotting time on providing subject-focused review sessions, peer mentoring, and remedial classes tailored to students' preferred courses to ensure alignment between program choice and academic preparedness.

Also, continuous monitoring and assessment may be implemented to evaluate the effectiveness of the tutorial program and make necessary adjustments. Finally, for the office of the guidance and counseling affairs and services that they may consider tailoring academic interventions to help students make informed decisions about their chosen programs and strengthen their chances of success in higher education.

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