

NEEDS AND EXPECTATIONS OF 12TH GRADE STUDENTS FOR ADMISSION TO THE BACHELOR'S DEGREE PROGRAM IN THE FACULTY OF SCIENCE AND TECHNOLOGY, SUAN SUNANDHA RAJABHAT UNIVERSITY

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Abstract

The objectives of this research were: 1) to study the Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University. 2) to compare specific personal variables of 12th Grade students with their needs and expectations for admission to the Faculty of Science and Technology. The population for this study was 660 of 12th Grade students who applied for admission to the Faculty of Science and Technology, with a sample size of 250 students. The statistical methods used for initial data analysis were descriptive statistics, including percentage, mean, and standard deviation. The inferential statistics used were one-way analysis of variance (ANOVA) and multiple comparisons with the LSD method for hypothesis testing. The research findings revealed that the overall Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology were at the highest level. The specific need students selected most was facilities and environment of the educational institution, which was at the highest level overall. The specific expectation students selected most was career opportunities, which was also at the highest level overall. Regarding the inferential statistical analysis, the one-way ANOVA hypothesis testing concluded that the different academic performance (GPA) of 12th Grade students affected their Needs and Expectations for admission to the Faculty of Science and Technology, with a statistically significant difference.

Keywords: Needs, Expectations, 12th Grade students, Admission to the Bachelor's Degree Program, Faculty of Science and Technology

Introduction

In the academic year 2024, Suan Sunandha Rajabhat University (SSRU) has shifted its internal quality assurance to adopt the **Education Criteria for Performance Excellence (EdPEX)**, specifically the 2024-2027 edition, to elevate the university's educational quality. This criterion emphasizes Category 3: Customers, by placing customer needs and expectations at the center of the institution's development. A deep understanding of customers will enable the institution to accurately meet customer needs and lead to continuous educational quality improvement. The Faculty of Science and Technology, Suan Sunandha Rajabhat University, categorizes its customers and stakeholders in educational management into several groups. High school students are considered important customers for enhancing the university's education, as they provide information and suggestions.

Consequently, the researcher recognizes the importance of high school students' impact on institutional development and has chosen the research topic: "**Needs and Expectations of**

12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University" This research supports operations under the Education Criteria for Performance Excellence and benefits the researcher and the faculty by providing an understanding of future students' needs, allowing the data to be used for improving curricula, teaching and learning management, course content, learning styles, and various facilities.

Objectives

1. To study the Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University.
2. To compare specific personal variables of 12th Grade students with their needs and expectations for admission to the Faculty of Science and Technology.

Methodology

This research is a survey of the Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University. The study will analyze these needs and expectations and also aims to compare how the key demographic characteristics of 12th Grade Students (Independent Variables) affect their needs and expectations for Admission to the Bachelor's Degree Program at the Faculty of Science and Technology, Suan Sunandha Rajabhat University (Dependent Variables).

A. Population and Sampling size

The population used in the research was all 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University, through Line Application. There are 660 people. The Sampling size using the calculating method of Taro Yamane as 250 samples (Yamane, T. 1973).

B. Research Tools

Research Tools is a questionnaire about the Needs and Expectations of 12th Grade Students for admission to the Bachelor's Degree Program in the Faculty of Science and Technology at Suan Sunandha Rajabhat University. This questionnaire uses both open-ended and closed-ended questions. The researchers refer to Needs Analysis of Students Enrolling In General Education Courses, Suan Sunandha Rajabhat University (Prajongjai, S. 2019).

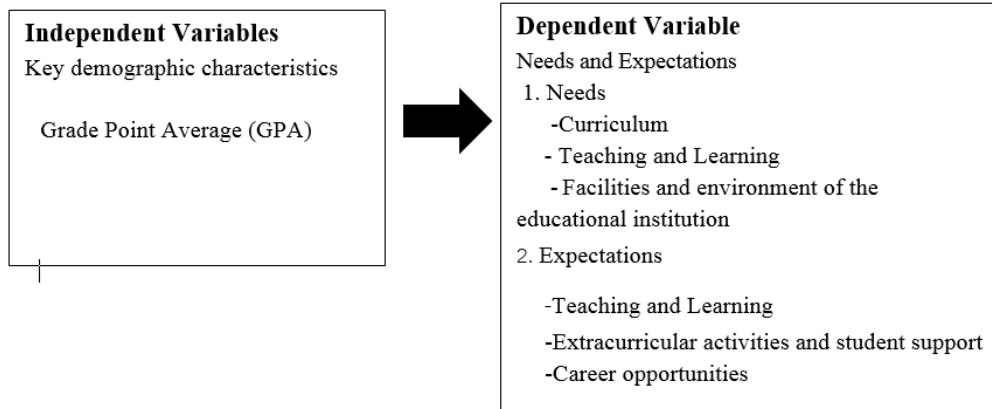
C. Data Analysis

The questionnaire was distributed to 12th Grade Students for admission to the Bachelor's Degree Program in the Faculty of Science and Technology at Suan Sunandha Rajabhat University. The questionnaires were analysed statistically using the SPSS program.

D. Conceptual framework

The hypothesis and conceptual framework of the research are as follows:

H₁: Grade Point Average (GPA) of 12th Grade Students affects the Needs and Expectations for admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University.



Results

The researcher collected questionnaires on opinions on Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University. It is divided into 2 parts.

Part 1 The Opinions on Needs and Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University.

1. The opinions on Needs of 12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University.

The researcher collected questionnaires with students divided into 3 aspects: The Curriculum, Teaching and Learning, and Facilities and environment of the educational institution. The opinions obtained in each aspect are as follows in Table 1

Table 1: Mean and standard deviation of opinions on Needs of 12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University

Needs of 12 th Grade Students for Admission to the Bachelor's Degree Program	Opinion Levels		
	Mean $\bar{x}$	Standard Deviation	Interpretation
1. The Curriculum	3.984	0.696	High
2. Teaching and Learning	4.337	0.794	Highest
3. Facilities and environment of the educational institution	4.808	0.416	Highest
Total opinion on Needs of 12th Grade Students for Admission to the Bachelor's Degree Program	4.380	0.731	Highest

2. The opinions on Expectations of of 12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University.

The researcher collected questionnaires with students divided into 3 aspects: Teaching and Learning, Extracurricular activities and student support, and Career opportunities. The opinions obtained in each aspect are as follows in Table 2

Table 2: Mean and standard deviation of opinions on Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in The Faculty of Science and Technology, Suan Sunandha Rajabhat University

Expectations of 12 th Grade Students for Admission to the Bachelor's Degree Program	Opinion Levels		
	Mean $\bar{x}$	Standard Deviation	Interpretation
1. Teaching and Learning	4.287	0.750	Highest
2. Extracurricular activities and student support	4.324	0.753	Highest
3. Career opportunities	4.835	0.406	Highest
Total opinion on Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program	4.428	0.722	Highest

From Table 2: From Analysis of the summary that shows Total opinion on Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in level highest. The mean was 4.428 and the standard deviation was 0.722. The highest value aspect was Career opportunities in level highest. It was a mean of 4.835 and the standard deviation was 0.406. The lowest value aspect was Teaching and Learning in level highest. It was a mean of 4.287 and the standard deviation was 0.750.

Part 2 Inferential statistical data analysis

From the conceptual framework of the research, the study examines the relationship between Grade Point Average(GPA) of 12th Grade Students affects the Needs and Expectations for admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University. The One-Way Analysis of Variance (ANOVA) is used to test the differences between the mean scores of the sample groups. If statistically significant differences are found, pairwise comparisons will be conducted using the Least Significant Difference (LSD) method.

3. Analysis of Variance (ANOVA)

Analysis of Variance of the Differences in the Needs and Expectations for admission to the Bachelor's Degree Program in the Faculty of Science and Technology

1) Analysis of Variance of Grade Point Average (GPA) compared with the overall Needs for admission to the Bachelor's Degree Program in the Faculty of Science and Technology, as shown in Table 3.

Table 3: Analysis of Variance of Grade Point Average(GPA) Compared with the Overall Needs for admission to the Bachelor's Degree Program

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	74.846	3	24.949	168.288	.000
Within Groups	36.470	246	.148		
Total	111.316	249			

From Table 3, It shows the F-test value is 168.288 and the significance value (Sig.) is .000. Since the Sig. value is less than 0.05, this indicates that there is a statistically significant difference. Therefore, pairwise comparisons were conducted using the LSD method, as shown in Table 4

Table 4: Least Significant Difference (LSD) Analysis for Comparing the Means of Multiple Groups of Grade Point Average(GPA) in Relation to the Needs for admission to the Bachelor's Degree Program

(I) Grade Point Average : GPA)	(J) Grade Point Average : GPA)	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<=2.00	2.01-2.50	.00000	.08006	1.000	-.1577	.1577
	2.51-3.50	.83333*	.08483	.000	.6663	1.0004
	>3.51	2.18182*	.13701	.000	1.9120	2.4517
2.01-2.50	<=2.00	.00000	.08006	1.000	-.1577	.1577
	2.51-3.50	.83333*	.05491	.000	.7252	.9415
	>3.51	2.18182*	.12080	.000	1.9439	2.4197
2.51-3.50	<=2.00	-.83333*	.08483	.000	-1.0004	-.6663
	2.01-2.50	-.83333*	.05491	.000	-.9415	-.7252
	>3.51	1.34848*	.12401	.000	1.1042	1.5927
>3.51	<=2.00	-2.18182*	.13701	.000	-2.4517	-1.9120
	2.01-2.50	-2.18182*	.12080	.000	-2.4197	-1.9439
	2.51-3.50	-1.34848*	.12401	.000	-1.5927	-1.1042

*. The mean difference is significant at the 0.05 level.

From Table 4, the statistical analysis compares the mean value between each pair of GPA groups. For the GPA range ≤ 2.00 compared with the 2.01–2.50 range, the mean difference is 0.00000 with a Sig. value of 1.000, indicating no statistically significant difference. Compared with the 2.51–3.50 range, the mean difference is 0.83333 with a Sig. value of .000, indicating a statistically significant difference. When compared with the range ≥ 3.51 , the mean difference is 2.18182 with a Sig. value of .000, also indicating a statistically significant difference. For the GPA range 2.51–3.50 compared with the ≥ 3.51 range, the mean difference is 1.34848 with a Sig. value of 0.000, indicating a statistically significant difference.

2) Analysis of Variance of Grade Point Average(GPA) compared with the overall Expectations for admission to the Bachelor's Degree Program in the Faculty of Science and Technology, as shown in Table 5.

Table 5: Analysis of Variance of Grade Point Average(GPA) Compared with the Overall Expectations for admission to the Bachelor's Degree Program

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	59.533	3	19.844	126.591	.000
Within Groups	38.563	246	.157		
Total	98.096	249			

From Table 5, It shows the F-test value is 126.591 and the significance value (Sig.) is .000. Since the Sig. value is less than 0.05, this indicates that there is a statistically significant difference. Therefore, pairwise comparisons were conducted using the LSD method, as shown in Table 6

Table 6: Least Significant Difference (LSD) Analysis for Comparing the Means of Multiple Groups of Grade Point Average(GPA) in Relation to the Expectations for admission to the Bachelor's Degree Program

(I) Grade Point Average : GPA)	(J) Grade Point Average : GPA)	Mean Difference (I- J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
<=2.00	2.01-2.50	.00000	.08232	1.000	-.1621	.1621
	2.51-3.50	.65385*	.08723	.000	.4820	.8257
	>3.51	2.09091*	.14089	.000	1.8134	2.3684
2.01-2.50	<=2.00	.00000	.08232	1.000	-.1621	.1621
	2.51-3.50	.65385*	.05647	.000	.5426	.7651
	>3.51	2.09091*	.12422	.000	1.8462	2.3356
2.51-3.50	<=2.00	-.65385*	.08723	.000	-.8257	-.4820
	2.01-2.50	-.65385*	.05647	.000	-.7651	-.5426
	>3.51	1.43706*	.12752	.000	1.1859	1.6882
>3.51	<=2.00	-2.09091*	.14089	.000	-2.3684	-1.8134
	2.01-2.50	-2.09091*	.12422	.000	-2.3356	-1.8462
	2.51-3.50	-1.43706*	.12752	.000	-1.6882	-1.1859

*. The mean difference is significant at the 0.05 level.

From Table 6, the statistical analysis compares the mean value between each pair of GPA groups. For the GPA range ≤ 2.00 compared with the 2.01–2.50 range, the mean difference is 0.00000 with a Sig. value of 1.000, indicating no statistically significant difference. Compared with the 2.51–3.50 range, the mean difference is 0.65385 with a Sig. value of .000, indicating a statistically significant difference. When compared with the range ≥ 3.51 , the mean difference is 2.09091 with a Sig. value of .000, also indicating a statistically significant difference. For the GPA range 2.51–3.50 compared with the ≥ 3.51 range, the mean difference is 1.43706 with a Sig. value of 0.000, indicating a statistically significant difference.

Conclusions And Discussions

In conclusion, the researchers used knowledge about Trends in University Application of Faculty of Science and Technology, Suan Sunandha Rajabhat University (Achayuthakan, P. 2019, May). and Motivation to Choose to Study at The Bachelor's Degree Level, College of

Logistics and Supply Chain, Suan Sunandha Rajabhat University (Sungkhasujit, T., & Phudetch, P. 2025, March). To serve as partial reference information for studying enrollment trends in the Faculty of Science and Technology, Suan Sunandha Rajabhat University, as well as to understand students' needs so that the faculty can improve its curriculum to align with students' interests and the labor market, plan student admissions and determine appropriate intake numbers for each curriculum, and enhance public relations and motivation efforts to attract more applicants to the desired fields.

From the research results in Part 1, Total opinion on Needs of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, which overall is level highest. We summarized and concluded each Needs aspect. It consists of 3 aspect which are as follows: The Curriculum, Teaching and Learning, and Facilities and environment of the educational institution. The aspect most chosen by students is Facilities and environment of the educational institution. In terms of Total opinion on Expectations of 12th Grade Students for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, which overall is level highest close to the value of needs. We summarized and concluded each Expectations aspect. It consists of 3 aspect which are as follows: Teaching and Learning, Extracurricular activities and student support, and Career opportunities. For Part 2 The comparison of the independent variable, Grade Point Average(GPA), of 12th Grade Students and its effect on their needs and expectations for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology. For the inferential statistical analysis using a one-way analysis of variance (ANOVA) in hypothesis testing, it was found that the comparison of mean values between each pair of Grade Point Average (GPA) showed statistically significant differences. Therefore, the researcher can conclude that the differing levels of Grade Point Average (GPA) among 12th Grade Students have an effect on their needs and expectations for Admission to the Bachelor's Degree Program in the Faculty of Science and Technology, Suan Sunandha Rajabhat University.

The benefits of the research are that it supports students to plan their graduation on time. Having an understanding of study planning correctly and be able to apply knowledge related to graduation to prioritize in preparing for graduation effectively. In addition, students have easy access to various graduation-related checking forms by quickly and applied correctly and appropriately.

In summary, the benefits derived from this research contribute to the Faculty of Science and Technology, Suan Sunandha Rajabhat University, by supporting the implementation of Subcommittee on Development and Enhancement of Education Quality to Excellence, Quality Enhancement on Higher Education Management Division, Office of the Permanent Secretary of the Ministry of Higher Education Science, Research and Innovation (2024). The findings serve as a foundation for enhancing the quality of education and the overall development of the Faculty, ensuring that it meets the needs of its customers effectively. By placing the Needs and Expectations of customers at the center of institutional development, the Faculty can gain a deeper understanding of its stakeholders. This understanding enables the institution to respond more precisely to customer needs and leads to continuous improvement in educational quality.

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