Macrothink Institute™

Journal of Studies in Education
ISSN 2162-6952
2021, Vol. 11, No. 2

English Program Service Quality and Student Satisfaction at a Southern Chinese University: An Empirical Study Utilizing an Important-Performance Analysis (IPA) Matrix

Wenyu Guan

Guangdong Medical University

Dept. of Foreign Language, Guangdong Medical University, China

Received: March 22, 2021 Accepted: April 22, 2021 Published: May 1, 2021

doi:10.5296/jse.v11i2.18445 URL: https://doi.org/10.5296/jse.v11i2.18445

Abstract

This research paper explores the relationship between perceived service quality of a college English program and student satisfaction in a public university in Southern China. An action priority matrix was developed to aid administrators, at the departmental and school level, allocate limited resources to identified areas of priority. A convenience sample of 2954 first-year students from 18 departments volunteered to take a survey on attitudes related to aspects of the English program in the first semester, including views on the physical learning environment, institution, faculty, course content, and interaction/communication. Using the importance-performance analysis (IPA) technique, this study found that classroom environment was considered the most important for the English program, while instruction methods such as individual and group presentation were the least important. For service quality, the best performance was connected to instructors, while the most negative relates to social opportunities, grading, and instruction methods. This study also found that first-year students prioritized CET4 test-taking skills and knowledge in the classroom. Chinese developed Apps for English learning were considered ineffective platforms for English learning. Evidence shows that female students placed greater importance on classroom environment and facilities, while males emphasized more on learning technologies.

Keywords: college English, higher education, importance-performance analysis (IPA), service quality, student satisfaction

1. Introduction

To promote national economic growth and ease Chinese citizens' employment pressure, China's Ministry of Education (1998) enacted the Action Plan for Revitalizing Education in the 21st Century in 1998. This policy ushered the beginning of the popularization of higher education in China. In that year, the number of students enrolled in Chinese higher education institutions (HEIs) was 1.08 million, with a gross enrollment rate of 9.8%. By 2002, more than 15 million students were enrolled, with a gross enrollment rate of 15.3% (Ministry of Education of the People's Republic of China, 2005). According to Martin Trow's (1973) conceptualization of higher education development, taking the gross enrollment rate of higher education as a criterion, higher education can be divided into three stages-elite, mass and universal systems. The transformation stranded in three stages is rather mechanical and deterministic - from elite to mass higher education when enrolment exceeded 15 % of the relevant age group, and from mass to universal higher education when it exceeded 50%. Chinese higher education had entered the mass stage in 2002 (Xu &Wu, 2020; Zhu, 2021). In 2020, Wu, the director in the Department of Higher Education of the Ministry of Education, pointed out that China has built the largest higher education system in the world, with more than 40 million students. The gross enrollment rate in higher education increased from 40% in 2015 to 51.6% in 2019 (The State Council of the People's Republic of China, 2020). As such, Chinese higher education had entered the universal stage. The acceleration of higher education in China was outstanding compared with the slow growth in the US, with the gross enrollment rate in higher education from 14.51% in 1998, to 16.61% in 2002 and 19.73% in 2019 (Statista, 2021). The popularization of higher education has multiplied not only the number of students, but also the number of institutions. In 1998, there were only 1022 higher education institutions in China; the number was increased to 1573 by 2016, and 2688 in 2019 (Ministry of education of the People's Republic of China, 2020).

In addition, with the increasing number of higher education institutions and the improvement in admission rate, the phenomenon of student outflow to other countries is also apparent. Increasing numbers of Chinese students prioritize higher education overseas as their first choice. According to the data released by the Ministry of Education, the numbers of Chinese students studying abroad has reached 2.518 million in 2019 (Ministry of education of the people's Republic of China, 2020).

The popularity of higher education, the growth of the number of HEIs, and the internationalization of high education have led to unprecedented admission competition among higher education institutions. As student mobility improves, this competition has forced HEIs to realize that only by meeting students' needs, providing a positive teaching/learning environment, and exceeding student expectation through quality services can institutional reputation to be built and student enrollment rate be increased (Sheeley, 2005). Thus, in the document of National Medium and Long-term Education Reform and Development Plan (2010-2020), China's Ministry of Education stated that improving education quality and optimizing teaching management were the core tasks to improve quality and efficiency in higher education (Ministry of Education of the People's Republic of China, 2010).

As a compulsory introductory course in undergraduate programs within Chinese HEIs, college English is an integral part of the higher education system (Zhao, 2012). The establishment of an efficient quality assurance system for English teaching plays a vital role in promoting the continuous improvement of English teaching quality in HEIs. For this reason, the Chinese Ministry of Education enacted reforms to college English teaching in 2007 (Office of the Ministry of Education), also known as College English Curriculum Requirements. The policy provides directions for English educators and administrators at the English departmental and university level to identify their problems in college English teaching, which also points out the reform directions to the improvement in the areas of teaching contents, objectives, methods, and evaluation (Ling, 2019). Meanwhile, it has brought unprecedented crisis and challenges to them. Due to the limited resources and capacities of different HEIs, reforms were not uniformly carried out. As the policy did not specify procedures to be undertaken to combat integration issues, full incorporation of the Ministry's recommendations was never effectively imposed (Jie, 2017; Zhu, 2018; Zhou, 2019; Wang, 2020).

Ensuring teaching quality of college English is a necessity to achieve the goal of talent cultivation; with the optimization of management and the improvement of teaching quality are closely related to student satisfaction (Ministry of education of the People's Republic of China, 2010). High-quality teaching produces higher student satisfaction, and students are more satisfied when their personal needs in education are met. Satisfaction enables students to maintain enthusiasm and motivation in English learning, effectively reducing learning burnout and improving retention (Lin et al.,2012).

This study will investigate and measure the first-year students' perception and satisfaction levels towards five dimensions of service quality at a university in Southern China. The five dimensions consist of learning environment, institution, faculty, course content, and interaction and communication factors; each utilized to identify potential problems in English teaching and related aspects of the university. This study will use the importance-performance analysis (IPA) matrix to develop a recommended action strategy based on the overall evaluation of student satisfaction. The strategy recommended is to facilitate administrators at the departmental and school level to efficiently distributes limited resources to identified areas of need, to maximize English student's satisfaction towards program service. This research can additionally be used as an academic and practical reference for other Chinese universities to identify and solve their current issues. This research aims to answer the following questions:

Q1. Among the five dimensions, what do students consider is the most important?

Q2. Among the five dimensions, what do students consider is the least important?

Q3. Among the five dimensions, what do students think the university or foreign language program's service performs the best?

Q4. Among the five dimensions, what do students think the university or foreign language program's service performs the worst?

This paper is organized as follows: Section 2 reviews previous studies on student satisfaction globally and reviews the importance-performance analysis technique. The methodology applied and the respective findings will be put in section 3 and 4. Discussion and conclusion will be illustrated in section 5 and 6. Study limitations and suggestions for future studies will be presented in section 7 and 8 respectively.

2. Literature Review

The earliest research on satisfaction focused on human resource management, targeting employees' job satisfaction and customer satisfaction in enterprises (Tian & Wang, 2007). Influenced by customer satisfaction in the management field, student satisfaction was first proposed in the US in the 1960s. Student satisfaction refers to students' short-term attitude; derived from the evaluation of the received education service or experiences (Elliot & Healy, 2001). During the 1960s, higher education in America and other developed countries entered the mass educational stage; with the expansion of students in HEIs, the public questioned HEIs' education quality. In response to public demand for accountability in education, the US launched large-scale campaigns to measure and evaluate the quality of education in HEIs. In 1966, the American Council on Education initiated the CIRP (Cooperative Institutional Satisfaction Questionnaire) to measure first-year students' satisfaction in HEIs (American Council on Education, 1972). With increased student mobility and academic choice, higher education was no longer a public good, but a private one; resulting in students becoming informed consumers (Scott, 2021). By the 1980s, the USA had produced numerous instruments to evaluate education quality, such as the College Student Experiences Questionnaire for investigating college students' studying experiences and the National Survey of Student Engagement for college students' study input, questions relating to college student satisfaction were also covered in the instruments. A separate measurement on individual student satisfaction was developed in 1994 by Noel Levitz called Student Satisfaction Invention. The goal was to evaluate student satisfaction with the importance and perceptions with various aspects of their college experiences and expectations, thus discovering some key factors affecting students' academic achievements (Han, 2006). This was the first time that the American Customer Satisfaction Index model was applied towards student satisfaction research, becoming one of the most influential scales.

Satisfaction indicators evaluate schools and their education quality, allowing parents and students to make informed choice of schools. As such, universities were highly motivated to improve the quality of school services through satisfaction surveys. Later, other developed countries such as the UK, Australia, and Japan also actively incorporated students' satisfaction into their university evaluation system (Zhang, 2010; Liu, 2014). For example, the first student satisfaction survey was conducted by the University of Limerick in 1999. By 2005, the UK has launched its own official government-organized National Student Survey (Yang, 2008).

2.1 Chinese Studies on Student Satisfaction

In China, student satisfaction survey in universities started in 2001, with a satisfaction survey conducted by Professor Liu in Tsinghua University on engineering students. Since then,

increasing numbers of Chinese scholars have begun to explore university students' satisfaction in a Chinese context. Wang et al. (2002) conducted a study on the evaluation index system of student satisfaction in HEIs; Zhao and Shi (2003) measured students' expectation or quality for a university through a questionnaire and an analytic hierarchy process (AHP) by using the American Customer Satisfaction Index model (ACSI). The adapted ACSI later became the base of constructing the customer satisfaction index system of university education in China. Fu (2004) conducted a student satisfaction survey among more than ten universities incorporating twelve indicators, such as students' professional learning, college management, teaching, student work, logistic services, school safety environment, and employment guidance. The research showed that students were not satisfied with the education services provided. Tian and Wang (2007) used the Kano model to investigate and analyze student satisfaction in four colleges and universities in Chongqing. Wu (2017) investigated student satisfaction on the English teaching materials used in a college English class based on two different English textbooks and found that different textbooks could influence students' satisfaction and learning outcomes. Cao Jian (2019) adjusted the SERVQUAL model to four dimensions (tangibles，assurance，value，interactivity) and 27 questions according to college English education service characteristics. Two scales were generated to test the expected (E) and perceived (P) values of the subjects for the quality of college English education service respectively, calculating the quality gap of quality of college English education service (Q=P-E), differentiate beliefs and put forward practical measures to enhance the service quality. Jin and Sun (2020）created an instrument to explore the influencing factors and importance of student satisfaction according to the actual needs of students, from four dimensions including teaching curriculum and teaching quality, learning support services，teaching resources and students' own development, results indicated that all dimensions have significant influences on students' satisfaction. Based on previous graduate surveys, Jin and Sun (2020) adopted and created a questionnaire to explore the influencing factors and importance of graduate student satisfaction in Shanghai Ocean University. Results indicate all four dimensions are positively correlated to student satisfaction, which provided a basis for improving school services quality. Sai (2020) made a survey investigating on the students' needs for the College English curriculum of the sophomores from different majors in Chifeng university in order to identify relevant countermeasures of the problems existing in the current college English curriculum to further deepen the reform of college English teaching in the process of transforming development.

Previous studies present numerous influencing variables on student satisfaction. Each study prioritized different determinates based on school type, course taken, and respondent year of study. The research on student satisfaction identifies several factors, including the perception of instructor competencies and methods of instruction (Chen et al., 2020; Wang, 2017; Li & Li, 2021); curriculum (Jin & Sun, 2020; Cao, 2019; Su, 2015), the learning environment (Zhai & Kong, 2020; Liu et al., 2017). textbooks (Wu, 2014; Si & Fei,2016) and the university image and value (Alves & Raposo, 2007) that lead to higher student satisfaction. The literature on student satisfaction was also linked to institutional concern for the quality of specific courses or programs and the need to understand student perceptions. It includes research on student satisfaction with traditional, hybrid, flipped, and online courses for

graduate, undergraduate or Ph.D. students（Bai, 2021; Li, 2020).

2.2 Understanding Importance-Performance Analysis (IPA)

Importance-performance analysis (IPA) was first coined and introduced by Martilla and James (1977) to measure customers' satisfaction with a service or a product. The IPA approach views satisfaction as a function of two parts: the importance of the service or product to the customer and a business' performance when providing that service or product (Martilla & James, 1977). IPA examines the item's importance and its performance as a determinant of what makes the respondent satisfied (Silva & Fernandes, 2010). The overall view of satisfaction with clear directions for management groups and where to focus resources. This methodology has proven to be a useful and practical tool that is relatively easy to administer and interpret, resulting in extensive use among managers and researchers in different fields, and improving strategic decisions (Slack 1994; Kitcharoen 2004; Silva and Fernandez 2010; Liu & Jin, 2018; Yao et al., 2018).

The IPA consists of a pair of axes in which the "performance" (x-axis) and the "importance" (y-axis) of the different elements involved in the service are compared (Figure 1). Each quadrant combines the importance and performance assigned by the client/user to the service element. The respective mean value of self-reported raw importance and attribute performance data will be the point for the IPA matrix (Martilla & James, 1977; Pike, 2004; Lim et al., 2020). The four quadrants in importance-performance analysis suggest four different marketing strategies and are characterized as follows (Martilla & James, 1977): Quadrant A represents high importance and low performance; this is the area of significant weaknesses that management needs to concentrate on and requires immediate attention for improvement. Quadrant B represents high importance and high performance; this is the area of major strengths that management groups need to continue the excellent work. Quadrant C represents low importance and low performance; this is the area of minor weaknesses that does not require additional effort. For Quadrant D, it represents low importance and high performance, which indicates that business resources focused on these items would be unnecessary due to limited additional returns.

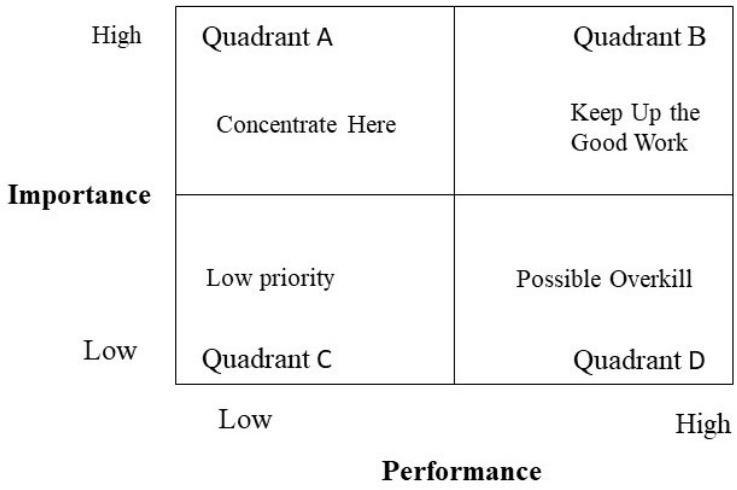

Figure 1. Importance-Performance Matrix (Adapted from Martilla & James, 1977, p. 78)

3. Methodology

3.1 Sample

The participants of the research consisted of first year students at a public university in Southern China. The sample of this study was the first-year students from 18 departments who were taking a college English program offered by the English department in the university. The study was conducted at the end of the first semester of 2020/2021 from November 2020 to January 2021. The participants were selected purposefully according to the aim of the research. This meant that a convince sampling technique was used. The participants were 2954 first-year students, which represents 74% of the total population. All respondents' identities were kept anonymous under ethical guidelines.

3.2 Instrumentation

The instrument used to collect information in this research was an electronic questionnaire adopted and modified from Sinclaire (2014), where respondents were asked 56 questions on the students' perceptions of college courses from five dimensions. Piloting the questionnaire helps the researcher improve the clarity of the item wordings and the instruments (Dörnyei,2007). The questionnaire was sent to 70 first-year students. After the piloting phase, the questionnaire was sent via the wechat application to first-year students taking the college English program in their first semester in the university.

3.3. Questionnaire Design

The questionnaire adopted from Sinclaire (2014) and modified by the researcher was based on the aim of the study and the Chinese context. The questionnaire items were modified to 50 items after pilot tests, and students' satisfaction level towards the performance of 50 items were added in the same dimensions/categories. The instrument used was divided into two parts. (1)

demographic data and (2) students' perceptions of the importance of 50 items and their satisfaction levels towards the performance of those items provided by the university examined. A 5-point Likert-scale was used to measure all the evaluations related to these items as listed below: for importance, 1=Unimportant; 2=Of little important; 3=Moderately important; 4=Important; 5=Very important; for performance, 1=Unsatisfied; 2=A little satisfied; 3=Moderately satisfied; 4=Satisfied; 5=Very satisfied. The following determinants of students' satisfaction in Table 1 will be focused on in this study.

Table 1. Summary of Survey Categories and Number of Survey

Determinants/Variables of student satisfaction and school performance	Survey category	Number of survey items
Learning environment	Class size, time, frequency	3
	Classroom environment	4
Institution	College facilities and services	7
Faculty	Instructor	7
communication/Interaction factors	Methods of instruction	8
	Learning technology	4
	Methods of grading	8
Course factors	course content	9

3.4 Methods of Analysis

The overall reliability of the previous questionnaire was calculated by using Cronbach's Alpha, previously was .93 (Sinclaire, 2014)) and was .97 in this study. The Cronbach's Alpha of importance model and satisfaction model were .92 and .97 separately (see Appendix A1). The KMO of those was above .9 on average (see Appendix A2), which also showed high internal consistency.

This study incorporates the importance-performance analysis (IPA) to assess first-year students' perceptions of the English program in a public university. IPA is effective in visually presenting and understanding importance through the importance and performance

relationship in organizations (Liu & Jin, 2018; Yao et al., 2018). Looking at each category/variable will provide further understandings of specific areas for improvement.

By using the SPSS 26.0, the importance-performance applied to a Southern Chinese university can be analyzed. It is useful to check the importance that first-year students attach to different categories/attributes of the service in the first semester non-English major program. It is also useful to evaluate the performance of the selected parts of the institution to analyze satisfaction and dissatisfaction. Also, the descriptive statistics, mean and standard deviation will be calculated to further understand the overall and specific areas.

4. Findings

Table 2 lists the demographic gender characteristics of respondents. The original sample consisted of 2954 students, 41.4% female, and 58.6% male.

Table 2. Demographic Characteristics of Respondents

Gender	Frequency	Percent
Male	1224	41.4
Female	1730	58.6
Total	2954	100.0

According to Table 3, the attributes that first-year students considered as the most important for the English program in a higher education institution (HEI) in China were: classroom environment, specifically, a clean, comfortable, and uncrowded classroom and good visibility to the instructor and course material presented. For instructors, the interest and passion in teaching English, the good practical and theoretical of English, and being accessible and available when needed. A safe campus environment for college facilities and services, teaching content easily applied in the future workplace were viewed as the most important for the attributes of English course content. Attributes considered least important relate to instruction methods, such as individual and group presentation.

Table 3. Importance-Performance Rating for English Program in a Southern Chinese University

Importance				Satisfaction		
Item Descriptor	Mean	Std. Deviation	Categories/Variables /Attributes /Items	Item Descriptor	Mean	Std. Deviation
	3.95	0.845	**Classroom Environment**		3.93	0.855
no5a	4.14	0.991	A clean, comfortable, and uncrowded classroom	no14a	3.93	0.965
no5b	3.52	1.217	Limited outside interference (interruptions, noise)	no14b	3.95	0.917
no5c	3.91	1.093	Attentive and participative classmates	no14c	3.89	0.935
no5d	4.25	0.924	Good visibility to the instructor and course material presentation	no14d	3.96	0.930
	3.58	0.888	**Methods of Instruction**		3.86	0.877
no6a	3.91	1.032	Lecture by teacher	No15a	3.95	0.929
no6b	4.02	0.975	Lecture-demonstration by teacher	no15b	3.97	0.926
no6c	3.86	1.053	Class discussion conducted by teacher	no15c	3.94	0.949
no6d	3.42	1.234	Small group class discussion conducted by students	no15d	3.79	1.022
no6e	3.41	1.182	Textbook assignments	no15e	3.85	0.988
no6f	3.05	1.290	Individual student presentations	no15f	3.73	1.060
no6g	3.11	1.279	Group presentations	no15g	3.73	1.059
no6h	3.84	1.087	Individual student self-directed learning (completion of assignments at own pace)	no15h	3.90	0.969
	4.16	0.817	**Instructor**		4.01	0.882

no7a	4.31	0.901	Instructor has good practical working knowledge of the subject	no16a	4.04	0.943
no7b	4.09	0.989	Instructor engages students in class discussions	no16b	3.99	0.956
no7c	4.14	0.937	Instructor is accessible and available when needed	no16c	4.01	0.928
no7d	4.23	0.912	Instructor is interested and passionate about the subject	no16d	4.03	0.920
no7e	4.28	0.872	Instructor has good theoretical knowledge of the subject	no16e	4.03	0.930
no7f	4.05	0.987	Instructor is interested in student learning	no16f	3.98	0.948
no7g	4.03	0.981	Instructor is prompt to answer email	no16g	3.97	0.933
	3.84	0.871	**Facilities and Services**		3.86	0.857
no8a	3.21	1.433	Access to parking	no17a	3.84	0.981
no8b	3.80	1.186	Ease to get to class	no17b	3.82	0.981
no8c	4.29	0.926	Safety of campus environment	no17c	3.98	0.891
no8d	4.09	1.053	Services offered (cafeteria, convenient store, etc.)	no17d	3.88	0.945
no8e	3.81	1.117	Access to support services (English tutoring, financial aid, etc.)	no17e	3.83	0.977
no8f	3.65	1.168	Social opportunities (sororities, fraternities, sports, networking, etc.)	no17f	3.77	1.003
no8g	4.06	0.991	Library resources	no17g	3.91	0.927
	3.85	0.914	**Learning Technology**		3.92	0.877
no9a	3.89	1.017	Use of Blackboard and other related technologies for assignments	no18a	3.93	0.920

			and communication with instructors and other students			
no9b	3.92	0.988	Use of the Internet, videos and other electronic media for classroom presentations and/or assignments	no18b	3.94	0.897
no9c	3.88	0.997	Use of Microsoft PowerPoint for presentations	no18c	3.94	0.905
no9d	3.73	1.095	Availability of electronic textbooks	no18d	3.87	0.958
	3.53	0.999	**Methods of Grading**		3.81	0.912
no10a	3.37	1.301	Paper style final exam	no19a	3.74	1.068
no10b	3.52	1.193	Chapter tests	no19b	3.81	1.008
no10c	3.42	1.223	Quizzes	no19c	3.78	1.016
no10d	3.47	1.211	Class participation	no19d	3.81	1.011
no10e	3.76	1.083	Individual student writing assignments	no19e	3.90	0.933
no10f	3.47	1.199	Group work writing assignments	no19f	3.78	1.012
no10g	3.90	1.044	Attendance	no19g	3.93	0.930
no10h	3.37	1.262	Evaluations by fellow students based on participation in group project	no19h	3.76	1.037
	3.77	0.890	**Course Content**		3.82	0.904
no11a	4.05	0.941	following current hot topics	no20a	3.92	0.938
no11b	4.11	0.951	Applied in future work or career	no20b	3.89	0.956
no11c	3.57	1.179	Superstare APP	no20c	3.77	1.043
no11d	3.57	1.197	Welearn APP	no20d	3.76	1.052
no11e	3.58	1.164	Ismart Writing APP	no20e	3.75	1.051

no11f	3.65	1.144	Ismart vocabulary APP	no20f	3.79	1.039
no11g	3.72	1.120	FIF oral APP	no20g	3.82	1.016
no11h	4.04	0.981	CET4/6 test-taking skills-centered with textbook-supplemented	no20h	3.89	0.960
no11i	3.65	1.156	textbook-centered with CET4/6 test-taking -supplemented	no20i	3.76	1.040
	4.05	0.840	**Overall**		3.93	0.833
no12a	4.09	0.933	Classroom Environment	no21a	3.94	0.893
no12b	3.90	1.015	Class Size	no21b	3.84	0.958
no12c	3.97	0.972	Class Time	no21c	3.90	0.915
no12d	3.97	0.971	Class Frequency	no21d	3.94	0.918
no12e	4.03	0.962	Learning Technology	no21e	3.95	0.891
no12f	4.12	0.920	Methods of Instruction	no21f	3.93	0.926
no12g	4.02	0.952	Methods of Grading	no21g	3.92	0.903
no12h	4.17	0.900	Instructor	no21h	3.97	0.900
no12i	4.12	0.909	English Course Subject	no21i	3.94	0.907
no12j	4.09	0.928	College Facilities and services	no21j	3.94	0.890

In evaluating the quality of services provided by the English department in a university in Southern China, the variables with the best performance were associated with instructors (see Table 3), English teachers within the institution are perceived as passionate about teaching English, having good practical and theoretical knowledge of English, and are accessible when needed, these were also considered the most important by first-year students. Aspects were perceived the most negatively relate to social opportunities (sports, networking, etc.), traditional paper-style final exam, and evaluations by fellow students based on participation in a group project. For course content related variables emerged textbook centered with CET4/6 test-taking-supplemented, and different apps for English learning such as Superstar, Welearn and Ismart. For instruction methods, individual and group presentations are considered the most negative performance in the quality service, which also showed the lowest performance

among first-year students.

In order to know the performance of the institution's quality service and the importance of different attributes of the service that first-year students' value in the university, the mean and standard deviations were calculated for the aggregated data. The results are presented in Table 3, according to the mean. All the important attributes had an average mean of 3.81, varying between 3.53 and 4.16. The Four attributes that were considered most important were: Instructor (mean 4.16); Classroom Environment (mean 3.95); Learning Technology (mean 3.85) and Facilities and Services (mean 3.84). The least important attribute for first-year students was methods of grading (mean 3.53). On the other hand, the average score of performance of the institution quality service is 3.89, ranging from 3.81 to 4.01. These results show that, first-year students are generally unsatisfied with the performance of this university as even though the high average mean indicates satisfaction when examining associated determinates, numerous factors were considered low (comparatively) overall.

The Importance-Performance matrix is represented in Figure 2. The interval scale of four different quadrants defined by the median values (3.88, 3.99) of the attributes based on the trend of responses in previous research (Silva & Fernandes, 2010; by Lynch et al.,1996 and Martilla & James (1977). As shown in Figure 2, the results are spread over three quadrants. Students indicated that classroom environment requires the most attention as it falls in Quadrant A. Students perceive classroom environment as a significant factor regrading institutional quality. With performance previewed as being inadequate, primary focus and resources need to address in this area. Students indicated items associated with instructor performance was the most important element of HEI service quality, while recognizing the school's high output quality (Quadrant B). Although students are highly satisfied with elements related to this factor, the institution needs continued focus to maintain standards. Quadrant C covers the most services, aspects related to grading, course contents, facilities and services, learning technology, and instruction methods. Quadrant C called Low Priority, demonstrates that institution's performance perceived by students is below average, but are not considered highly important.

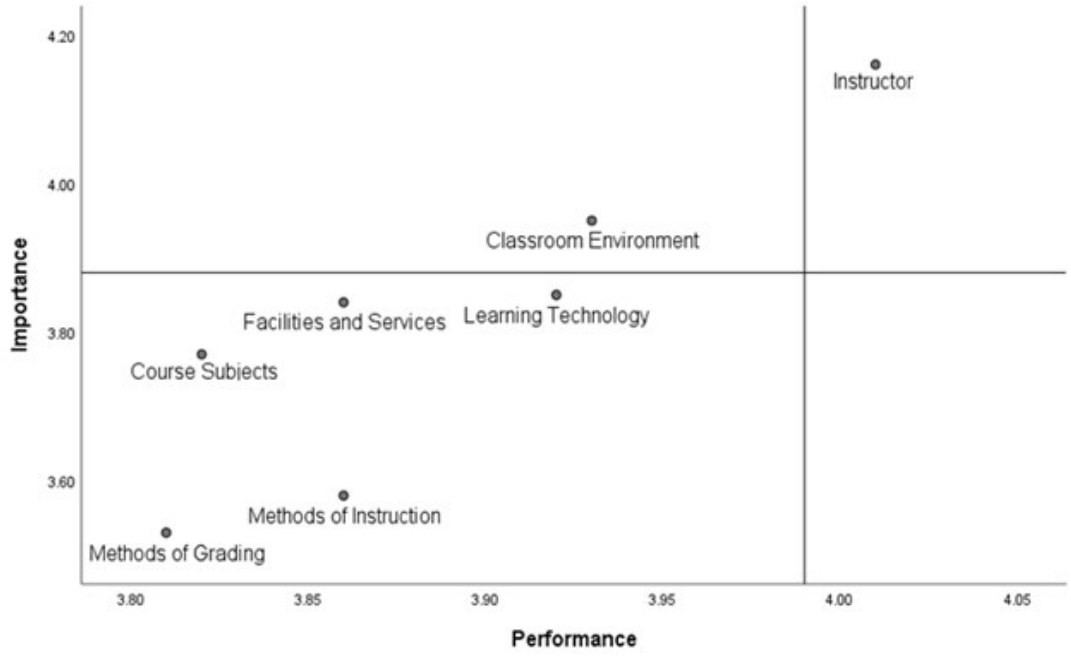

Figure 2. Importance-Performance Matrix According to the Median Value for the Axis

Even though in Quadrant C, students show low importance and low satisfaction with these five categories, it is still important to know their preferred details, because it could lead to problems if not treated properly. To provide insight into potential areas of future need, this study provides a factor breakdown through an IPA matrix for each determinant and their associated items. For the classroom environment (see Appendix B1), creating a clean, comfortable and uncrowded classroom (no 5a) is where the university or English department management needs to prioritize resources. For instructors **(**see Appendix B2**),** even though this is the aspects that this university has the strongest performance, it still needs to continue to maintain items such as instructors have good practical and theoretical working knowledge of the subject (no 7a, no 7e), and being passionate in teaching English (no 7d). For methods of instruction (see Appendix B3), in Quadrant C, while students put a low priority onto these areas, the institution has significant growth opportunities. The university and English department should investigate methodology, especially in individual and group presentations (no 6f, no 6g) since the performance were considered the lowest. For facilities and services (see Appendix B4), among all the items indicated lower performance in Quadrant C, social opportunities such as network, sports (no 8f) is an area of greatest need. For learning technology (see Appendix B5), the availability of electronic textbooks (no 9d) needs to be improved. Figure B6 (see Appendix B6) represents methods of grading, there are 3 items are indicated in quadrant B. Of the three, the one that received the highest importance from the students while still simultaneously being highest performance by the school is attendance check (no 10g). in Quadrant C, there are 4 items, the lowest performing item is paper-style final grading methods (no 10a) indicating students do not really focus on this, but at the same time, performance from the school is the lowest. For English course content **(**see Appendix B7**),** there are a cluster of items indicating low important by the students and low

performance by the school. Among these items, three items that indicating the apps for English learning such as Superstar, Welearn and Ismart writing (no 10c, no 10d and 10e) were considered having similar inefficient impacts to students' English learning. Also, the course content picked need to balance the needs from students on the textbook and CET4/6 test skills centered (no 11f and no 11i) as all these are identified lower performance areas.

Examining performance by gender (Table 4), both males and females consider the capacity of instructors as the most important and satisfaction attributes. Females emphasize the importance of classroom environment, facilities and services, while males are concerned more about learning technology. As for the class size, 39.4% of first-year students think 30-50 students should be a good English class size (see Appendix C1). For class time and class frequency, 54.5% of students consider morning 8 am to 12pm is a good time to study English, and 69.7% for 1 class per week (80 minutes) (see Appendix C2 & C3). For the English course content, 40.56% of students put CET4/6 test-taking-centered with a textbook-supplement as the most important attribute (see Appendix C4).

Table 4. Independent Variable Mean Score Difference by Gender

	Male		Female		Difference (M-F)		Percent Difference (M-F)	
	Importance	Satisfaction	Importance	Satisfaction	Importance	Satisfaction	Importance	Satisfaction
Classroom Environment	3.89	3.95	4	3.92	-0.11	0.03	2.8%	0.8%
Methods of Instruction	3.6	3.9	3.56	3.83	0.04	0.07	1.1%	1.8%
Instructor	4.06	4.02	4.23	4	-0.17	0.02	4.2%	0.5%
Facilities and Services	3.77	3.92	3.89	3.82	-0.12	0.1	3.2%	2.6%
Learning Technology	3.84	3.96	3.86	3.9	-0.02	0.06	0.5%	1.5%
Methods of Grading	3.6	3.88	3.49	3.77	0.11	0.11	3.2%	2.9%
Course Subjects	3.79	3.89	3.76	3.77	0.03	0.12	0.8%	3.2%

5. Discussion

Findings indicate that the classroom environment was the most unsatisfactory area for first-year students. These findings align with previous studies (Liu et al., 2017; Zhai & Kong, 2020; Li, C.R., & Li, M. T., 2021), referencing leaning environment was a primary factor that limited the level of student satisfaction. Previous researchers also suggested that English

departments in HEIs at that time should place greater importance on the investment of teaching facilities/environment, formulate long-term plans and immediate goals for the construction of teaching infrastructures, and improve the conditions for running schools to ensure the improvement of teaching quality (Wang et al, 2007; Chang, et al., 2008). Similar findings also have been claimed in current studies (Wu, 2014; Liu et al., 2017; Chen et al., 2020; Li & Li, 2020;). Even though the specific indicators used in those studies vary, they reflect a common issue that basic infrastructure of schooling was consistently not being addressed. There are two primary reasons for this; first, with the rapid popularization of higher education, the number of students in universities has increased dramatically, which has exceeded the capacity initially planned and designed within the HEIs. For instance, students' feedback on insufficient self-study rooms, limited book resources in libraries and the slow network (Silva & Fernandes,2011). Second, the expansion, improvement, and renewal of teaching infrastructure and equipment involve significant expenditure. The cost of investment in teaching infrastructure is extremely high, its operation and maintenance in the later stages require consistent investment, and the capital cannot be recovered in the short term (Chen et al., 2020). The university examined in this study recruited 2000 more first-year students in 2020 compared with the number of students in 2019. The expansion of the university has led to limited classrooms; thus the number of students participating in English classes have been adjusted from less than 70 students to more than 110 students, which has resulted in crowded classrooms. Another related issue is that the classroom technology has not updated or replaced regularly, students sitting in the back of the class have a limited field of vision in many classes. It was also difficult for English teachers to focus on students' learning progress or communicate with each student in designed 80-minute weekly classes.

This study also found that first-year students prioritized English teachers focusing more on CET4 test-taking skills and knowledge in the classroom. CET 4, as a national exam promoted by the Ministry of Education in China (Zheng & Cheng, 2008), is recognized as a compulsory certificate/project and one of the graduation requirements in Chinese universities; additional, it is a tool for recruitment in China (Jin, 2011). Currently, teachers in college English teaching tend to be textbook-oriented, emphasizing grammatical points, cultural and vocabulary expansion, and less involvement in English application skills such as writing and speaking. Besides, the shortage of English teachers, the limited time to teach weekly, and the large classrooms leave teachers disadvantaged in balancing students' needs in CET4 test-taking tutoring and teachers' completion of required teaching tasks outlined in the college English curriculum. Wu and Zheng (2020) also highlighted the same issues mentioned after investigating college English teachers' and undergraduate senior students' satisfaction with the College English Test (CET) by constructing and verifying a satisfaction model with data collected via questionnaires among 104 universities across 14 provinces in China. Therefore, administrators at the departmental and university level should implement the CET4 tutoring teaching model (Zhang, 2019) or the CET4 oriented teaching strategy (Li et al., 2019). The aim is to combine classroom English teaching and CET4 tutoring to improve the quality of college English teaching and students' English application skills, while helping students successfully pass CET4 exams and build a solid foundation for future English learning/development.

As for English learning e-applications, Zheng (2021) and Zhang (2021) proved that using apps for English learning could be a more effective way to improve the efficiency of English teaching and learning. However, among the five apps for English learning required in college English program in the first semester in the university examined, were considered an ineffective platform for English learning. Li (2020) found that the learning outcomes were not aligned with teachers' and students' expectations after using English apps for one semester. This was because the online supervision on those apps was surprisingly weak, it was impossible for teachers to supervise the learning dynamics of each student. Wu (2020) and Gao (2020) suggested that when students were assigned to use various English learning apps, teachers and decision-makers in management groups need to make sure the preciseness and effectiveness of content in apps, prioritize the process of the interaction between teachers and students, and also provide teachers more training on the usage of apps and the supervision on students' online learning outcomes. Therefore, universities need to choose learning platforms reasonably and rationally and use them effectively to achieve the desired learning objectives.

This study also found that females placed greater importance on classroom environment, facilities and services, while males emphasized more on learning technologies. Therefore, administrators at the English departmental and university level should maintain the advantages of the competencies of English teachers, improve the classroom learning environment and on-campus facilities, upgrade learning tools and technology, which will tremendously improve the performance of the service quality and increase student satisfaction.

6. Conclusion

The Importance Performance Analysis (IPA) is a practical and self-explanatory technique that can help decision-makers in management groups in different fields to decide which attributes should be prioritized to improve overall student satisfaction. This research supports the use of importance-performance analysis as an alternative framework for evaluating student satisfaction, especially in higher education. This framework can be used in further studies related to students' satisfaction in any educational institution. Through the Importance-Performance Analysis, it was concluded that the attributes considered most important by first-year students in the university investigated in China were the aspects of the classroom environment including uncrowded classroom and good visibility to the instructor and course material presented; instructors are knowledgeable and passionate in English teaching, and accessible when needed; a safe campus environment and future working-related materials taught in the classroom. On the other hand, instruction methods such as individual and group presentation were considered the least important.

As for the service quality provided by the English department in the university targeted, the best performance was associated with instructors; the most negative performance includes social opportunities (sports, networking, etc.), evaluation methods (summative final exam evaluation), and course content (CET4 test-taking orientated or textbook-oriented, the efficiency of different apps). Based on the analysis of the data presented and the service quality perceptions of first-year students, the English program's education quality was

analyzed. A recommended action priority matrix was developed to aid administrators in the management groups at the department and the university level to allocate limited resources to identified in-need areas.

7. Limitations

Although this study provides insights into factors that determine student satisfaction and perceptions with the English program in a Southern Chinese university, the interpretation of results has several limitations. One limitation is the generalizability of the results in this study that participants are a convenience sample of first-year students enrolled in an English program at one university. The second limitation is related to measurement factors due to the use of the IPA method based on the previous studies. Additionally, a potential limitation may be connected to the instrumentation distribution. As this study utilized a chat media application, students may have responded more favorably to questions. Although confidentially was explicated noted and maintained, questions about virtual data collection are still an ethical question yet to be resolved within the social sciences.

8. Suggestions

Too many items/attributes were asked to check participants' perceptions and satisfaction levels in this study, which could cause respondent fatigue. Future research could look at other universities by modifying reduced item questionnaire, a shorten and condensed revised questionnaire might create different results that are more accurate.

Second, even though the results of students' perceptions of the English program in a Southern Chinese university were generalized, it could be better to know the perceptions of decision-makers at different management levels on education quality attributes and how these differences affect the types of policy and management practices prioritized.

Lastly, future research could also examine the connection between student satisfaction and evaluation results of different English learning apps to determine if specific apps can effectively meet students' needs in Chinese higher education institutions.

References

Alves, H., & Raposo, M. (2007). Conceptual Model of Student Satisfaction in Higher Education. *Total Quality Management*, *18*(5), 571-588. https://doi.org/10.1080/14783360601074315

American Council on Education. (1972). *The American Freshman: National Norms for Fall 1972. American Council on Education, 7*(5), 1-14.

Bai, L.L. (2021). Application of Expectancy Confirmation Theory in College English Online Learning. *Journal of Beijing Polytechnic College, 20*(1), 83-88.

Cao, J. (2020). Research on the service quality of college English education based on SERVQUAL model. *Modern English, 5*, 67-69.

Chang, Y.P., Yao, H. P., & Liu, Y.Y. (2008). Research on the differences of influencing factors of student satisfaction between independent colleges and national universities. *Higher Education Exploration, 1*, 125-128.

Chen, F., Yang, X. L., Wen, X. Y., Kong, L. H., & Zhang, R. (2020). Study on the study satisfaction of independent college students. *Private Higher Education Research, 17*(03), 19-29.

DeShields, O.W., Jr., Kara, A., & Kaynak. E. (2005). Determinants of business student satisfaction and retention in higher education: applying Herzberg's two-factor theory. *International Journal of Educational Management*, *19*(2), 128-139. https://doi.org/10.1108/09513540510582426

Dörnyei, Z. (2007). *Research methods in applied linguistics*. Oxford University Press.

Elliott, K., & Healy, M. (2001). Key factors influencing student satisfaction related to recruitment and retention. *Journal of Marketing for Higher Education*, pp.1-11. https://doi.org/10.1108/09513540510582426

Elliott, K.M., & Shin, D. (2002). Student Satisfaction: an alternative approach to assessing this important concept. *Journal of Higher Education Policy and Management*, *24*(2). https://doi.org/10.1080/1360080022000013518

Fu, Z. F. (2004). The Empirical Analysis and Study of Satisfying Degree of the Universities and Colleges Undergraduate. *Higher Education Forum, 5*, 12-18, 31.

Gao, D.P. (2020). On integration of ideological and political education into blended teaching based upon English learning app - a case study of "English listening and speaking" for normal college students in ethnic area. *Journal of Hulunbeier Universities*, *28*(5), 135-138.

Han, Y. Z. (2006). A review of American college student satisfaction survey methods. *Comparative Education Research], 6*, 60-64.

Jin, S. L., & Sun, L. S. (2020). A Study on the Service Quality of Undergraduate Education Based on Student Satisfaction - Taking Shanghai Ocean University as an Example. *Higher Agricultural Education, 1*, 61-65.

Kitcharoen, K. (2004). The importance-performance analysis of service quality in administrative departments of private universities in Thailand. *ABAC Journal*, *24*(3), 20-46.

Li, C.R., & Li, M. T. (2021). Research on the influencing factors of satisfaction with the teaching method of archives undergraduate major courses- taking the archives major of Hubei university as an example. *Shanxi Archives, 1*,151-159.

Li, D. (2020). Exploration of higher vocational English classroom teaching model based on cloud classroom smart vocational education app - take H university *English 2* as an example. *Yangtze River Series, 32*, 49-50.

Li, J., Yu, Y., & Dan, R. (2019). A preliminary study of question-oriented classroom teaching strategies for college English band four and six. *Study of Science and Engineering at RTVU*, *4,* 45-47.

Li, Y.S. (2020). A PBL-based survey on satisfaction of college English flipped classroom learning. *Journal of GuangXi Normal University for Nationalities,37*(5),155-160.

Lim, J.Y., Yoon, J.Y., & Kim, M. (2020). Analysis of the educational needs related to, and perceptions of the importance of, essential job competencies among science and engineering graduates. *Education Sciences*, *10*(4), 85. https://doi.org/10.3390/educsci10040085

Lin, B., Yan, J.J., & Mao, Y.F. (2012). Study on the Influence of College Students' Learning Attitudes and Academic Achievements - From the Perspective of Learning Satisfaction.*Theory, 24,* 200-201.

Liu, J.G., & Jin, M. Y. (2018). Tourist Satisfaction Analysis of Beijing Historical Scenic Spots Based on IPA Method. *Journal of Beijing Union University (Humanities and Social Sciences), 16*(1), 38-45.

Liu,J. L. (2014). University Student Satisfaction Survey: Current Situation, International Experience and Development Strategy. *Higher Science Education, 3*, 64-69.

Liu, X. L. (2001). Fundamental Research on Safety and Durability of Major Structures in Civil and Hydraulic Engineering. *China Civil Engineering Journal*, 6, 1-7.

Liu, Y.X., Shi, L., & Liu, J. T. (2017). Research on the Service Quality of Zhuhai Universities Based on the IPA Analysis Method - Taking Independent Colleges as an Example. *Journal of Jilin TV & Radio University, 4*, 94-97.

Jie, F. (2017). Some Thoughts and Practice on the Reform of College English Teaching in Colleges and Universities. *Modern Communication, 10*, 147-148.

Jin, Y. (2011). Half a century of development of language testing - a review of the 33rd Language Testing Research Symposium. *Foreign Language Testing and Teaching, 4*, 56-59.

Martilla, J., & James, J. (1977). Importance-performance analysis. *Journal of Marketing, 41*(1), 77-79. https://doi.org/10.1177/002224297704100112

Ministry of education of the people's republic of china. (1998). *The Action Plan for Revitalizing Education for the 21st Century.* Ministry of education of the people's republic of china. http://www.moe.gov.cn/jyb_sjzl/moe_177/tnull_2487.html

Ministry of Education of the People's Republic of China. (2005). *The discussion between Zhou Ji and representatives of the 24th National Student Federation.* Ministry of education of the people's republic of china. http://www.moe.gov.cn/jyb_zzjg/moe_187/moe_410/moe_532/tnull_10689.html

Ministry of education of the people's republic of china. (2010). *National Medium and Long-term Education Reform and Development Plan (2010-2020).* Ministry of education of

the people's republic of china. http://www.moe.gov.cn/srcsite/A01/s7048/201007/t20100729_171904.html

Ministry of education of the people's Republic of China. (2020). *National Education Development Statistical Bulletin in 2019*. Ministry of education of the people's Republic of China. http://www.moe.gov.cn/jyb_sjzl/sjzl_fztjgb/202005/t20200520_456751.html

Ministry of education of the people's Republic of China, (2020). *The international influence of education has reached a new level during the 13th Five-Year Plan (2016-2020 period)*. Ministry of education of the people's Republic of China. http://www.moe.gov.cn/fbh/live/2020/52834/mtbd/202012/t20201223_507073.html

Pike, S. (2004). The use of repertory grid analysis and importance-performance analysis to identify determinant attributes of universities. *Journal of Marketing for Higher Education, 14*(2), 1-18. https://doi.org/10.1300/J050v14n02_01

Sai, H.Q.Q.G. (2020). A study of college English curriculum in application-oriented universities - taking Chifeng university as an example. *Journal of Zhaowuda Mongolian Teachers College, 41*(02),70-73.

Scott, T. (2021). Higher education's marketization impact on EFL instructor moral stress, identity, and agency. *English Language Teaching, 14*(1), 99-106. https://doi.org/10.5539/elt.v14n1p99

Shelley, P.H. (2005). Colleges need to give students intensive care. *The Chronicle Review*, *7*(1), 23-29.

Si, Q. Y., & Fei, M. S. (2016). Research on the evaluation index system of college students' satisfaction in my country. *Journal of Wuyi University (Social Science Edition), 18*(2), 87-91, 94.

Silva, F., & Fernandes, P. O. (2010). Using importance-performance analysis in evaluating of higher education: a case study. *ICEMT 2010 International Conference on Education and Management Technology. IEEE,* 121-123. https://doi.org/10.1109/ICEMT.2010.5657689

Silva, F. & Fernandes, P.O. (2011). Importance-performance analysis as a tool in evaluating higher education service quality: the empirical results of estig (IPB). *Creating Global Competitive Economies: A 360-Degree Approach.*

Sinclaire, J.K. (2011). Student satisfaction with online learning: Lessons from organizational behavior. *Research in Higher Education Journal*, 11.

Sinclaire, J.K. (2014). An empirical investigation of student satisfaction with college courses. *Research in Higher Education Journal*, *2*, 1-21.

Slack, N. (1994). The Importance-performance matrix as a determinant of improvement priority, *International Journal of Operations & Production Management, 14*(5), 59-75. https://doi.org/10.1108/01443579410056803

Statista. (2021). College enrollment in the United States from 1965 to 2018 and projections up to 2029 for public and private colleges. *Statista*. https://www.statista.com/statistics/183995/us-college-enrollment-and-projections-in-public-and-private-institutions/

Su, Z.B. (2015). Investigation and Empirical Analysis of Student Satisfaction of University Public Basic Courses. *Education Teaching Forum, 9*, 263-264.

Tian, X. Z., & Wang, X.M. (2007). 在校大学生满意度调查与分析[Investigation and analysis of college student satisfaction]. *Higher Education Exploration, 5,* 126-128.

Trow, M. (1973). *Problems in the transition from elite to mass higher education*. Berkeley: Carnegie Commission on Higher Education.

Wang, B., Fan, L.L., & Chi, Y. (2007). Analysis on factors affecting students' satisfaction rate in independent schools. *Journal of National Academy Of Education Administration*, *6*, 72-77, 86.

Wang, C.Z. (2020). Thinking about the reform of college English teaching under the background of MOOC. *Writer's World, 19*, 20-21.

Wang, G.Q., Sha, J.X., & Wu, Y. X. (2002). Some Thoughts on Proposing a Customer Satisfaction Strategy in Education. *Shanghai Quality, 8,* 21-23.

Wang, X. C. (2017). Research on College English Classroom Teaching Evaluation from the Perspective of Student Satisfaction. *New Campus, 12*, 84.

Wu, Q. (2020). With the help of mobile apps, promote middle school students' English learning - take the use of apps in *the stop classes without suspension* stage as an example. *Middle School Curriculum Guidance (Teacher Communication), 24*, 85-86.

Wu, S., & Zheng, H. S. (2020). College teachers' and students' satisfaction with cet-4 and cet-6:an empirical study based on structural equating modeling. *China Examinations*, *4*, 55-64.

Wu, W. (2014). An empirical study of college English classroom teaching from the perspective of textbook evaluation. *Journal of Ningbo University of Technology*, *26*(4), 123-129.

Wuensch, K.L., Azia, E.O., Kishore, M., & Tabrizi, M.H.N. (2008). Pedagogical characteristics of online and face-to-face classes. *International Journal on E-Learning*, *7*(3), 523-532.

Xu, G.M., & Wu, H. (2020). The popularization of higher education in China. *Higher Education Development and Evaluation*, *36*(06), 1-14.

Yang, X.M. (2008). The role of student satisfaction surveys in the management of British universities. *University Education Science, 1*, 101-104.

Yao, Y.B., Hou, P. P., & Liu, Y. X. (2018). Research on the High-star Hotel Attributes based on IPA Analysis. *Commercial Research*, *3,* 107-114.

Zhai, CJ., & Kong, H, N. (2020). The effects of service quality of higher education on students' satisfaction and their behavioral intention. *Heilongjiang Research on Higher Education, 38*(11),53-58.

Zhang, L.N. (2021). Research on the construction of oral English teaching mode in higher vocational colleges based on mobile App. *Science &Technology Vision, 1*, 79-80.

Zhang, Y. (2010). A survey of student satisfaction with the quality of higher education in Australia - taking Adelaide university students' learning and teaching evaluation as an example. *Educational Research, 11*, 31-35.

Zhang, Y. (2019). A probe into the guidance of level 4 and level 6 in college English teaching. *Overseas English, 14,* 133-134.

Zhao, G. W. (2012). *Construction of English teaching system in medical universities in china.* Shanghai Foreign University.

Zhao, G.J., & Shi, X.M. (2003). A Primary Study on the Expected-quality Measurement of University Education. *Journal of Northwest Sci-Tec University of Agriculture and Forestry (Social Science Edition), 2*, 89-92.

Zheng, C.X. (2021). The advantages of using APP software to learn English for secondary vocational students. *Knowledge Library, 1*, 121-122.

Zheng, Y., & Cheng, L. (2008). College English Test (CET) in China. *Language Testing*, *25*(3), 408 - 417. https://doi.org/10.1177/0265532208092433

Zhou, X. (2019). Exploring the combination of theory and practice in college English teaching reform. *Popular Literature and Art, 5*, 185-186.

Zhu, A. Y. (2018). Thoughts on the reform of college English teaching mode. *Campus English, 27*, 63-64.

Zhu, L. (2021). Research on the quality and employment views of the popularization of higher education-a review of theories and policies of the popularization of higher education in China. *Science and Technology Management Research*, *41*(1), 207.

Appendix A

Table A1. Model Reliability Tests by variable

Variable	Cronbach Alpha	Variable	Cronbach Alpha
Classroom Environment	0.806	Classroom Environment Satisfaction	0.933
Methods of Instruction	0.904	Methods of Instruction Satisfaction	0.961
Instructor	0.946	Instructor Satisfaction	0.978
Facilities and Services	0.883	Facilities and Services Satisfaction	0.958
Learning Technology	0.914	Learning Technology Satisfaction	0.967
Methods of Grading	0.939	Methods of Grading Satisfaction	0.97
Course Subjects	0.935	Course Subjects Satisfaction	0.969
Overall Importance	0.97	Overall Satisfaction	0.979

Table A2. Model Reliability Tests

Models	Cronbach Alpha	KMO	Bartlett's Test of Sphericity
Total Importance Model	0.92	0.906	0.001
Total Satisfaction Model	0.97	0.937	0.001
Overall Study	0.96	0.949	0.001

Appendix B

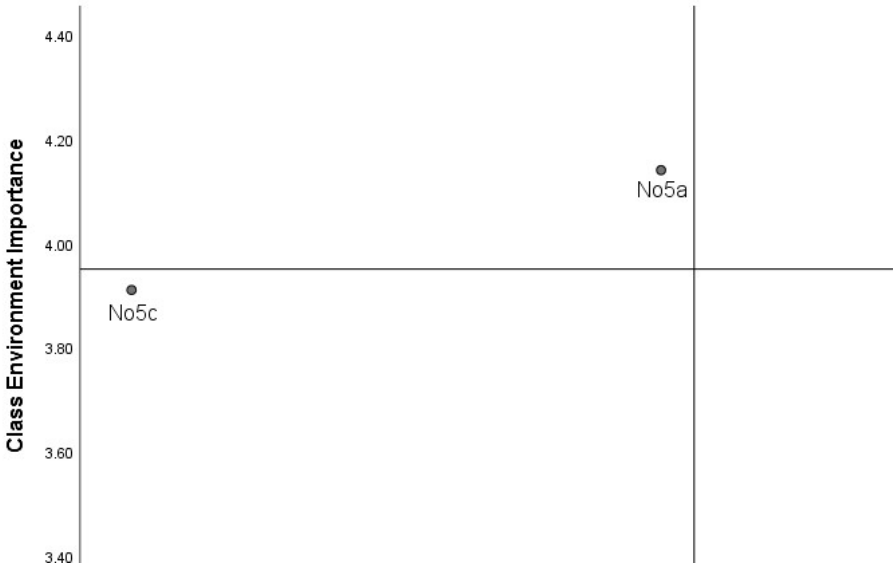

Figure B1. IPA for Classroom Environment

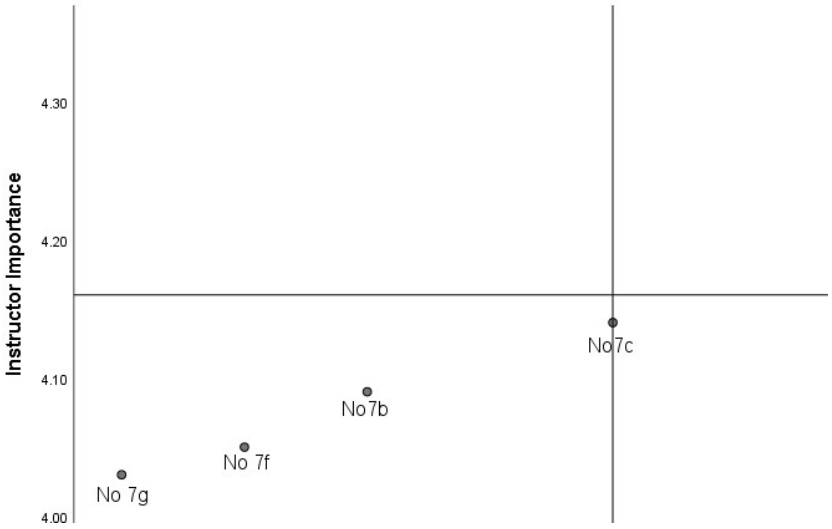

Figure B2. IPA for Instructor

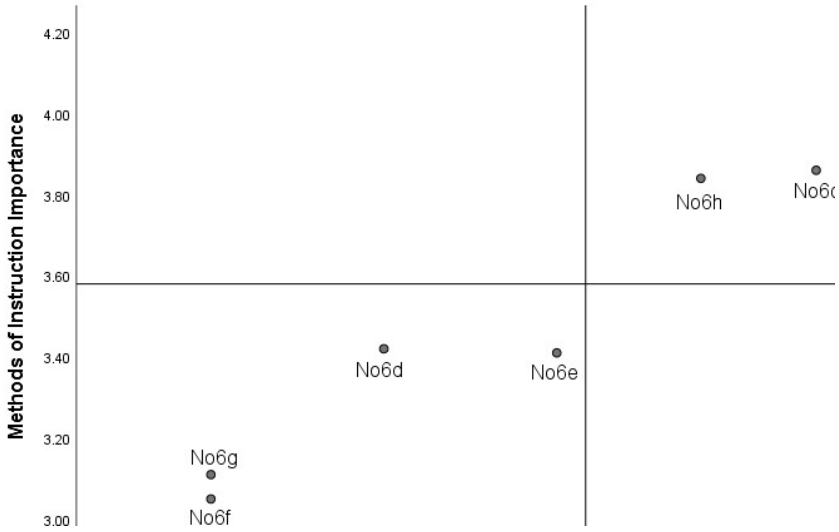

Figure B3. IPA for Methods of Instruction

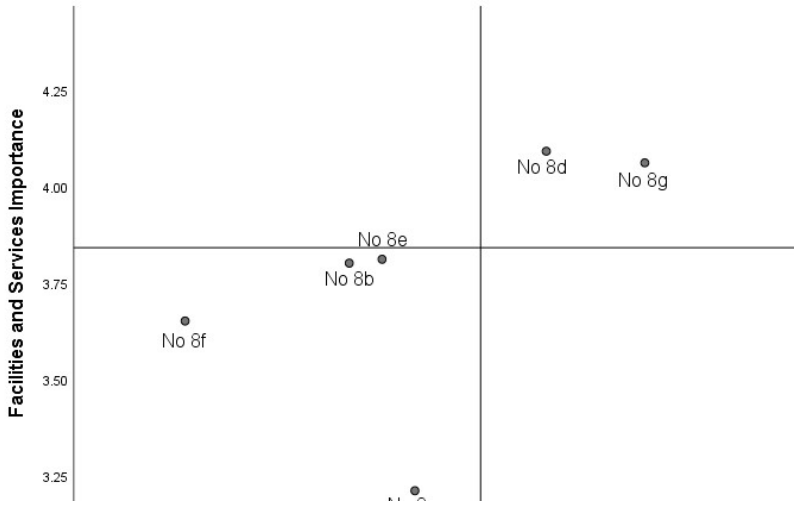

Figure B4. IPA for Facilities and Services

Figure B5. IPA for Learning Technology

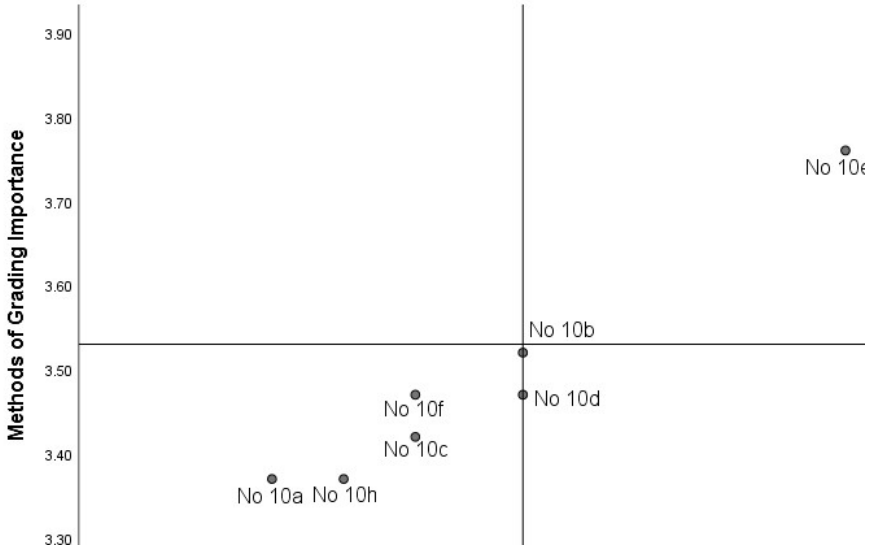

Figure B6. IPA for Methods of Grading

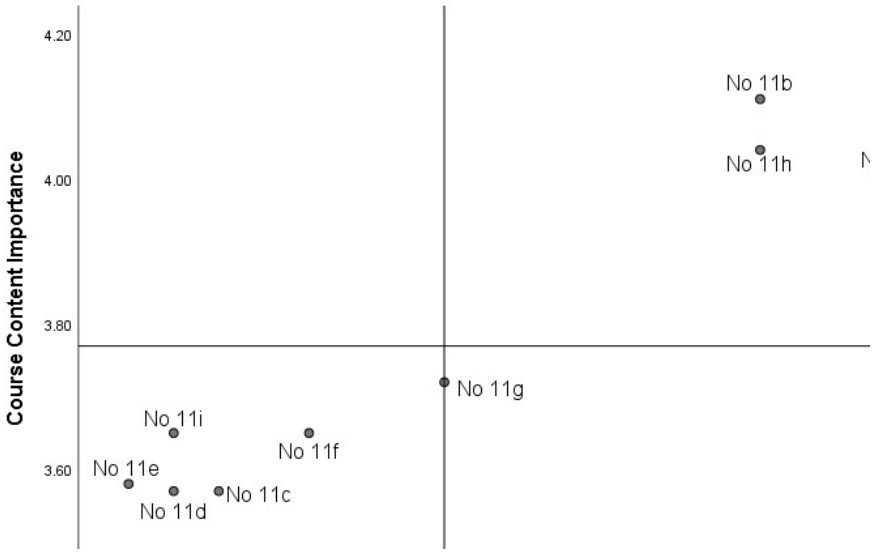

Figure B7. IPA for Course Content

Appendix C

Table C1. Class Size That Contributes to Student Satisfaction with a College English Program

	Frequency	Percent
Less than 30 Students	422	14.3
30 - 50 Students	1165	39.4
50 - 70 Students	656	22.2
70 - 100 Students	415	14.0
100 students or More	296	10.0
Total	2954	100.0

Table C2. Class Time That Contributes to Student Satisfaction with a College English Program

	Frequency	Percent
Morning 8am - 12pm	1610	54.5
Afternoon 2:30pm - 5:30pm	1091	36.9
Evening 7pm - 10pm	253	8.6
Total	2954	100.0

Table C3. Class Schedule That Contributes to Student Satisfaction with a College English Program

	Frequency	Percent
1 Class Per Week	2058	69.7
2 Classes Per Week	754	25.5
3 Classes Per Week	142	4.8
Total	2954	100.0

Table C4. Frequency of CET4 Test-Taking Skills-Centered with Textbook-Supplemented

Frequency Table - Importance Index						
Item	Value	Very Unimportant	Unimportant	Moderately Important	Important	Very Important
No11h	Frequency	65	90	702	899	1198
	Percent	2.2	3.0	23.8	30.4	40.6