

Retraction

Retracted: A Study on Students' Satisfaction with Classroom Teaching of Independent Adult Universities Based on SERVQUAL and IPA Models, Taking Beijing Haidian Adult University as an Example

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This article has been retracted by Hindawi following an investigation undertaken by the publisher [1]. This investigation has uncovered evidence of one or more of the following indicators of systematic manipulation of the publication process:

- (1) Discrepancies in scope
- (2) Discrepancies in the description of the research reported
- (3) Discrepancies between the availability of data and the research described
- (4) Inappropriate citations
- (5) Incoherent, meaningless and/or irrelevant content included in the article
- (6) Manipulated or compromised peer review

The presence of these indicators undermines our confidence in the integrity of the article's content and we cannot, therefore, vouch for its reliability. Please note that this notice is intended solely to alert readers that the content of this article is unreliable. We have not investigated whether authors were aware of or involved in the systematic manipulation of the publication process.

In addition, our investigation has also shown that one or more of the following human-subject reporting requirements has not been met in this article: ethical approval by an Institutional Review Board (IRB) committee or equivalent, patient/participant consent to participate, and/or agreement to publish patient/participant details (where relevant).

Wiley and Hindawi regrets that the usual quality checks did not identify these issues before publication and have since put additional measures in place to safeguard research integrity.

We wish to credit our own Research Integrity and Research Publishing teams and anonymous and named external researchers and research integrity experts for contributing to this investigation.

The corresponding author, as the representative of all authors, has been given the opportunity to register their agreement or disagreement to this retraction. We have kept a record of any response received.

References

- [1] X. Wang, Y. Gao, and S. Li, "A Study on Students' Satisfaction with Classroom Teaching of Independent Adult Universities Based on SERVQUAL and IPA Models, Taking Beijing Haidian Adult University as an Example," *Journal of Mathematics*, vol. 2022, Article ID 7744401, 9 pages, 2022.

Research Article

A Study on Students' Satisfaction with Classroom Teaching of Independent Adult Universities Based on SERVQUAL and IPA Models, Taking Beijing Haidian Adult University as an Example

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To some extent, students' satisfaction with classroom teaching reflects the teaching quality of the school. In view of the characteristics of independent adult universities in recent years, which are characterized by great age difference, uneven foundation, and diversified demands, it is necessary to start the research from the perspective of students, through sufficient investigation, forming a survey index, setting up questionnaires, and conducting empirical research on their satisfaction with classroom teaching. In the study, the service quality gap model (SERVQUAL) is introduced; the importance-satisfaction model, importance-performance analysis (IPA), was used to check the consistency of the SERVQUAL research results; the current status of satisfaction was obtained; and countermeasures and suggestions were proposed to improve students' satisfaction with classroom teaching of independent adult universities.

1. Introduction and Literature Review

Independent adult universities play an important role in adult higher education in China. With the influence of China's economic development, the expansion of college enrollment, the decrease of school-age population, and other factors, the mission of independent adult universities has risen from "replenishing academic qualifications" to "permanent education." Therefore, their students are characterized by great age differences, uneven foundation, and personalized needs. Whether teachers can teach students according to their aptitudes, stimulate students' enthusiasm for learning, and get students' recognition plays a crucial role in the sustainable development of schools. Besides, students acquire knowledge and abilities mainly through classroom learning at school. Therefore, it is of great significance to research how to hold classroom teaching and improve students' classroom satisfaction.

The service quality gap model (SERVQUAL) was proposed by Parasuraman, Zeithaml, and Berry [1]. It has good reliability and validity and powerful service quality diagnosis

function and is considered as the most typical method of evaluating service quality [2]. However, it also has the disadvantage that the conclusions are not universal and should be revised according to different industries when used [3]. In the education industry, from the end of the 20th century, the revised SERVQUAL model began to attract the attention of higher education researchers [4]. Yu and Han [5] summarized the results of the research on higher education service quality evaluation by experts and scholars at home and abroad in the past 20 years. Zhang [6] introduced the model into the teaching quality evaluation system of higher vocational colleges. Some scholars have also applied this model to classroom teaching. For example, He [7] applied this model to the quality measurement of classroom teaching service in higher education. IPA model is a model proposed by Martila and James to evaluate service quality by forming a quadric chart from the two dimensions of importance and satisfaction. In the field of education, Zhao [8] applied IPA to study the teaching quality of ordinary colleges and universities. Wang [9] studied students' satisfaction with classroom teaching based on IPA model.

In terms of research field, there are few reports on classroom satisfaction of independent adult universities. From the perspective of research methods, some literature studies students' satisfaction with classroom teaching solely based on SERVQUAL model or IPA model, but there are no reports on studying classroom satisfaction by combining the two models. Based on the characteristics of independent adult universities students, this article firstly designed a questionnaire from the perspective of students, through a particular website focusing on questionnaire related items. The questionnaire was distributed to and collected from the students of Beijing Haidian Adult University (an independent adult university, hereinafter referred to as Haizhi). Then, with statistical analysis tools such as SPSS and Excel, the SERVQUAL model was used to analyze the satisfaction of all levels of indicators in the questionnaire and calculate the scores of students' classroom satisfaction, and then the IPA model was used to verify the consistency of the SERVQUAL research results. Therefore, the final conclusions were drawn, and the strategies for improving class satisfaction in independent adult universities were proposed.

2. Application Design and Empirical Analysis of SERVQUAL Model

2.1. Application Design of SERVQUAL Model

2.1.1. Design of Evaluation Index System of Haizhi Students' Classroom Satisfaction. The original SERVQUAL model proposed five dimensions to measure service quality, namely, tangibility, reactivity, assurance, empathy, and reliability. Each dimension was subdivided into 22 indicators to form a scale. This article took Haizhi students as the research object and fully considered the educational objectives of independent adult universities, the characteristics of students, and the problems encountered in the process of teaching supervision in the past three years. The original SERVQUAL scale was revised to retain the original five dimensions, while considering that most of Haizhi students study in their spare time, so students were very concerned about whether the knowledge learned in school can be used to guide their work. Therefore, the practicability dimension was added to the scale to determine whether the knowledge learned in the classroom could provide students with valuable learning support. Consequently, taking the six dimensions above as the first-level indicators, student interviews were organized, and 24 questions were designed as the second-level indicators. Finally, several experts were invited to have a discussion to further confirm the scientificity and rationality of the indicators (refer to Table 1).

2.1.2. Design of Class Satisfaction Evaluation Questionnaire for Haizhi Students. According to the principles and requirements of questionnaire design, the questionnaire set up four parts: basic information, expectation of classroom satisfaction, actual perceived value of classroom satisfaction, and importance. The basic information included gender, age,

and major. Likert quantitative index system was used to evaluate the expected value and actual perceived value of classroom satisfaction; each question was given a quantitative score of 1 to 5 points according to the degree of expectation and perceived quality. Likert quantitative index system was also adopted for the degree of importance, and each question was given a quantitative score of 1 to 5 points according to its importance. After the questionnaire design was completed, a small-scale presurvey was conducted by random sampling from all grades and majors. It was found that the factor loads of Q9 and Q10 under the reactivity dimension were less than 0.5, so they were deleted. The remaining 20 indicators had good validity and reliability. Therefore, the final formal questionnaire contains only five dimensions and 20 questions: tangibility, reliability, assurance, empathy, and practicability.

2.1.3. Distribution and Collection of Class Satisfaction Evaluation Questionnaire for Marine Vocational Students. The design, distribution, and collection of the questionnaire are made by the particular website mentioned before, and 312 questionnaires were collected. Due to the setting of the website, only when all the options are completed can the questionnaire be submitted. Therefore, all 312 questionnaires collected were valid questionnaires, which also met the requirements of statistics, valid samples $n \geq 30$ or $n \geq 3 * (k + 1)$ (k is the number of explanatory variables, and n is the number of samples).

2.1.4. The Reliability and Validity Test of Class Satisfaction Evaluation Questionnaire for Haizhi Students. Reliability test is usually expressed by Cronbach's Alpha Coefficient (α). Generally speaking, if α coefficient is greater than 0.7, the reliability of the questionnaire is relatively high. In this article, KMO and Bartlett's test of sphericity were used to do the validity test. It is generally believed that the validity of the questionnaire can be passed only when the KMO value is greater than 0.7 and the significance level of Bartlett sphericity test is less than 0.05. According to the analysis of SPSS, the α coefficients of the expected value, actual perception, and importance of the five dimensions of the questionnaire were all greater than 0.7; the KMO values were all greater than 0.7; and the significance level is 0.000, indicating that the questionnaire had high reliability and validity (refer to Table 2).

2.2. Empirical Analysis of SERVQUAL Model. The core of SERVQUAL model (service quality gap model) is that service quality (SQ) depends on the degree of difference between customer perceived service level (P) and customer expected service level (E). When $P > E$ and SQ is a positive number, customer satisfaction is generated. When $P = E$ and SQ equals zero, customers feel calm, not better or worse. When $P < E$ and SQ is a negative number, customers are dissatisfied. This paper carried out the empirical analysis according to this principle.

TABLE 1: Initial indicators of survey on Haizhi students' classroom satisfaction.

Dimensions (first-level indicators)	Questions (second-level indicators)
Tangibility	Q1 Hardware conditions of classroom satisfy teaching needs (desks and chairs, blackboards, multimedia equipment, etc.)
	Q2 The teacher dresses appropriately, teaches generously, and is full of spirit
	Q3 The teacher obeys school rules and comes to and leaves class on time
	Q4 Good classroom learning atmosphere
Reliability	Q5 Teaching objectives and plans are clear
	Q6 Teaching content is correct and rigorous
	Q7 Teaching tasks are performed accurately, and teaching plans are completed on time
Reactivity	Q8 Electric teaching materials are exquisitely made, or the blackboard design is reasonable and neat
	Q9 The teacher pays attention to students' listening status and responds to students' questions in time
Assurance	Q10 The teacher discovers, praises, and gives feedback on students' progress in time
	Q11 The teacher has profound professional knowledge and is good at stimulating students' interest in learning
	Q12 The teacher's teaching methods are flexible and adapt to the characteristics of students
	Q13 The teacher is good at using modern educational technology
	Q14 The teaching structure is tight and assigned properly
	Q15 The teacher pays attention to interaction and guides and actively organizes discussions during class time
Empathy	Q16 The teacher treats every student equally
	Q17 The teacher discovers students' needs initiatively
	Q18 The teacher helps students kindly, not perfunctorily
Practicability	Q19 The teacher teaches students according to their aptitude and meets their individual needs
	Q20 The teaching content of the teacher keeps pace with modern times
	Q21 Students can learn what they want in class
	Q22 What students learn in class can solve problems in work and life

TABLE 2: The test result of reliability and validity of the questionnaire.

Dimension	Index number	Cronbach α			KMO		
		Expectations (E)	Actual perceived value (P)	Importance (W)	Expectations (E)	Actual perceived value (P)	Importance (W)
Tangibility	4	0.884	0.863	0.852	0.821	0.822	0.785
Reliability	4	0.943	0.952	0.944	0.855	0.855	0.865
Assurance	6	0.966	0.968	0.962	0.909	0.931	0.901
Empathy	3	0.937	0.939	0.929	0.769	0.766	0.761
Practicability	3	0.941	0.911	0.932	0.748	0.760	0.765

2.2.1. *Basic Information Analysis.* With the help of Excel, the retrieved data were classified, summarized, and calculated according to the basic information, and the results are represented by graphs (refer to Figures 1 and 2).

According to Figures 1 and 2, from the perspective of gender, male scores were higher than female scores in terms of expectation, actual perception, and importance, and the perceived difference value is positive, indicating that males generally have higher class satisfaction. From the perspective of age, only students aged 31–50 had positive perception difference, while students of other age groups all had negative perception difference, indicating that most students had some dissatisfying feeling with classroom teaching, especially those aged 18–30 and over 51, whose perception difference was over -0.2 , indicating low class satisfaction. In addition, students aged 18–30 had the lowest mean score of importance to each question, only 4.392, which indicates that students of lower age group paid less attention to the investigated problems. From the perspective of majors, the perceived difference

values of health management, business management, and property management were all positive, which meant students of these three majors had higher satisfaction. However, the perceived difference value of preschool education and hotel management was negative, which resulted in dissatisfaction. In particular, the perceived difference value of preschool education reached -0.17 , showing great dissatisfaction. Moreover, the expected value and actual perceived value of this major were generally low. It should be also noticed that the expectations of students majoring in hotel management were relatively high, with an average of 4.960, which was a main reason for their dissatisfaction.

2.2.2. *Index Dimension Analysis.* With the help of SPSS and Excel, the retrieved data were classified, summarized, and calculated according to the five dimensions of tangibility, reliability, assurance, empathy, and practicability, and the results are presented in Table 3.

The following conclusions can be drawn from Table 3:

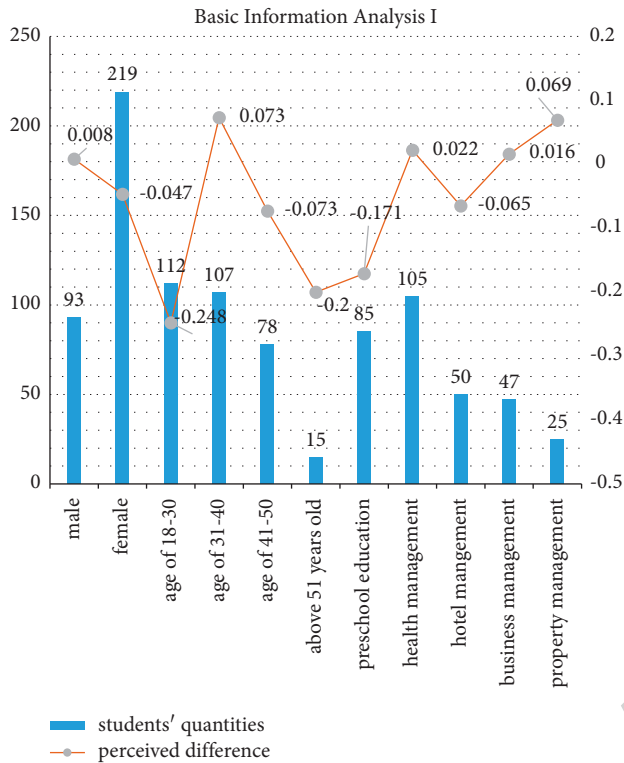


FIGURE 1: Basic information analysis I.

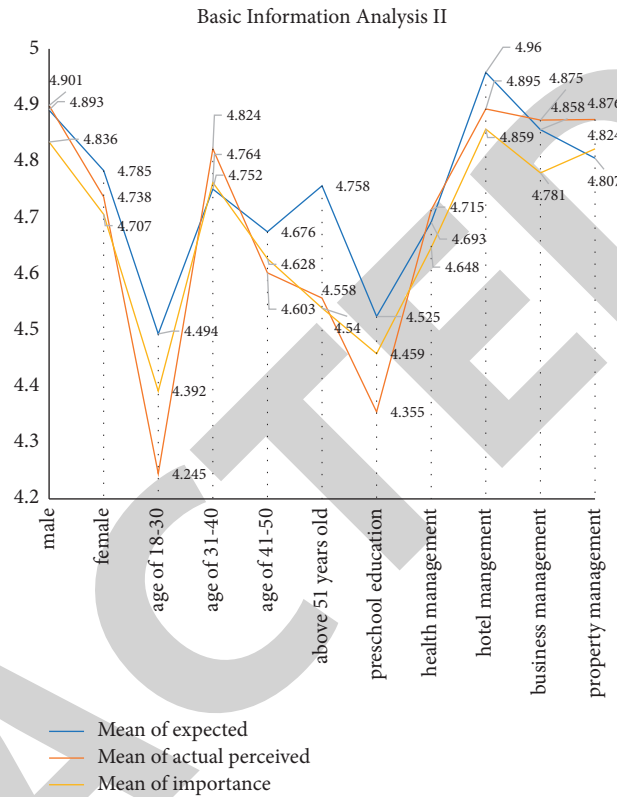


FIGURE 2: Basic information analysis II.

- (i) Students were basically satisfied with all dimensions of classroom teaching.

Although the mean value of perception difference of the five dimensions was negative, they were all very close to zero, indicating that there was no significant difference between students' actual perception and expectation of the five dimensions and 20 questions in the survey, and they were basically satisfied with each dimension of classroom teaching.

- (ii) The perception difference and importance of practicability dimension were the largest.

The mean value of perception difference of practicality dimension was -0.065 , which is the largest difference among the five dimensions. Therefore, it could be seen that students showed the most dissatisfying emotions with classroom teaching in practicality. Meanwhile, the importance of practicality was considered the highest by students, reaching 4.822 . This led to the conclusion that the students in independent adult universities paid the most attention to the practicability of classroom teaching.

- (iii) The perception differences of Q2, Q3, Q16, and Q18 were positive.

The perception differences of Q2 and Q3 in tangibility dimension, Q16 in assurance dimension, and Q18 in empathy dimension were positive, which meant that the following aspects were approved by students: "the teacher dresses

appropriately, teaches generously, and is full of spirit"; "the teacher obeys school rules and comes to and leaves class on time"; "the teacher treats every student equally"; and "the teacher helps students kindly, not perfunctorily."

- (iv) The perception differences of Q6, Q7, Q13, Q15, and Q20 were close to zero.

The perception differences of Q6 and Q7 in reliability dimension, Q13 and Q15 in assurance dimension, and Q20 in practicability dimension were close to zero, which meant that the following aspects were basically recognized by students: "teaching content is correct and rigorous"; "teaching tasks are performed accurately, and teaching plans are completed on time"; "the teacher is good at using modern educational technology"; "the teacher pays attention to interaction and guides and actively organizes discussions during class time"; and "the teaching content of the teacher keeps pace with modern times."

- (v) The perception differences of Q1, Q21, and Q22 were the largest.

The largest perception difference among all the second-level indicators was that of Q1 in tangibility dimension, which indicated that the aspect "hardware conditions of classroom satisfy teaching needs" did not achieve students' expectation and that the university did not do well, at least it did not meet the students' expectations. The perception

TABLE 3: Mean value analysis of each dimension and problem index of student classroom satisfaction.

Dimensions (first-level indicators)	Questions (second-level indicators)	Mean of expected value (E)	Mean of actual perceived value (P)	Mean of perceived difference (P-E)	Mean of importance (W)
Tangibility	Q1	4.747	4.631	-0.115	4.535
	Q2	4.788	4.811	0.022	4.750
	Q3	4.862	4.881	0.019	4.746
	Q4	4.837	4.808	-0.029	4.749
	Mean	4.808	4.783	-0.026	4.695
Reliability	Q5	4.843	4.776	-0.067	4.617
	Q6	4.827	4.817	-0.010	4.824
	Q7	4.830	4.811	-0.019	4.714
	Q8	4.811	4.760	-0.051	4.779
	Mean	4.828	4.791	-0.037	4.733
Assurance	Q11	4.843	4.785	-0.058	4.853
	Q12	4.814	4.782	-0.032	4.821
	Q13	4.808	4.798	-0.010	4.704
	Q14	4.814	4.782	-0.032	4.601
	Q15	4.795	4.782	-0.013	4.801
	Q16	4.846	4.846	0.000	4.746
	Mean	4.820	4.796	-0.024	4.754
Empathy	Q17	4.808	4.769	-0.038	4.708
	Q18	4.817	4.827	0.010	4.840
	Q19	4.821	4.782	-0.038	4.824
	Mean	4.815	4.793	-0.022	4.790
Practicability	Q20	4.821	4.808	-0.013	4.843
	Q21	4.814	4.715	-0.099	4.814
	Q22	4.788	4.705	-0.083	4.808
	Mean	4.808	4.743	-0.065	4.822

differences of Q21 and Q22 in practicability dimension were -0.099 and -0.083, which were relatively a little high, and students were dissatisfied with the aspects “students can learn what they want in class” and “what students learn in class can solve problems in work and life.”

2.2.3. Calculation of Students’ Classroom Satisfaction Based on SERVQUAL Model

(1) *Weight Calculation.* There are many methods to calculate the weight. In this paper, the product scale method of analytic hierarchy process was used to calculate the weight of each dimension. According to Table 3, the importance of each dimension from small to large is as follows: tangibility, reliability, assurance, empathy, and practicability. The tangibility is weighted as 1, the reliability is 11.354, the assurance is 11.3541.354, and so on. Through calculation, the weights of each dimension were as follows: $W_{\text{tangibility}} = 9.97\%$, $W_{\text{reliability}} = 13.50\%$, $W_{\text{assurance}} = 18.28\%$, $W_{\text{mobility}} = 24.75\%$, $W_{\text{practicability}} = 33.51\%$.

(2) *Satisfaction Calculation.* Based on SERVQUAL model, the calculation formula of students’ classroom satisfaction is

$$SQ = \sum_{k=1}^5 W_k \frac{\sum_{i=1}^n (P_i - E_i)}{n}, i = 1, 2, \dots, 8, 11, 12 \dots 22. \quad (1)$$

According to (1), $SQ = -0.139$.

In order to explain the satisfaction more directly, the satisfaction index above SQ can be converted into the percentage status through (2), and the students’ classroom satisfaction is 87.99%, which reached a high satisfaction level.

$$SQ_{(\text{percentage status})} = \frac{SQ - [\min (P_i) - \max (E_i)]}{0 - [\min (P_i) - \max (E_i)]}, \quad (2)$$

$$i = 1, 2, \dots, 8, 11, 12 \dots 22$$

3. Empirical Analysis of IPA Model

This section used the importance-performance analysis method (IPA model) to analyze the students’ evaluation of classroom satisfaction. IPA model is a four-quadrant chart, which, in this article, is drawn with actual perception (satisfaction) as the horizontal axis, importance as the vertical axis, and the mean value of the horizontal axis and vertical axis as the division line, including four areas: advantage area, improvement area, opportunity area, and maintenance area. Based on the data in Table 3 and the principle of IPA, the first-level indicators and the second-level indicators were drawn on the IPA chart with the help of Excel (refer to Figures 3 and 4 for details), and the following conclusions were obtained.

3.1. *IPA Analysis of the First-Level Indicators.* The dimensions located in the advantage area were empathy and assurance, which showed that teachers’ caring for students,

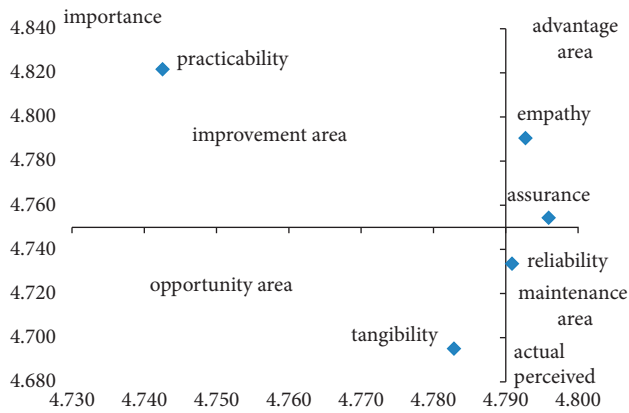


FIGURE 3: The first-level indicators in IPA.

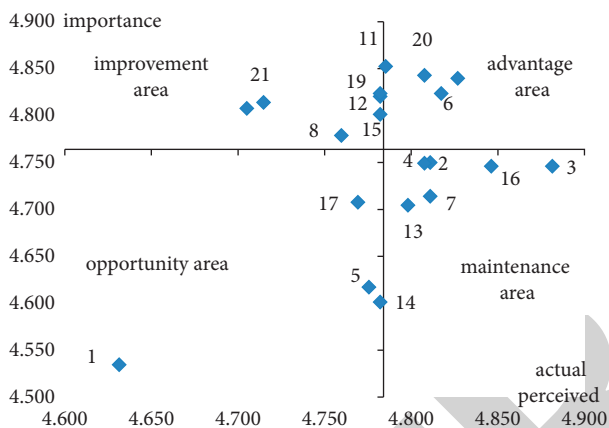


FIGURE 4: The second-level indicators in IPA.

teachers' personal qualities, and teaching abilities were considered as very significant as well as satisfying aspects, and they were the core competitive advantage of classroom teaching. The dimension located in the improvement area is practicality, which shows that students need to be improved in terms of providing valuable learning support for the knowledge learned in the classroom, because not only the satisfaction is low, but also the students pay special attention to it, and the school must pay great attention to it and improve it as soon as possible. The dimension located in the opportunity area is tangibility, which shows that students do not pay attention to the teaching environment and teachers' appearance but are full of opportunities. The dimension located in the maintenance area is reliability, which shows that teachers have been recognized by students in terms of the accurate and reliable implementation of teaching plans and teaching tasks, but students do not pay so much attention to it and can maintain the status quo first.

3.2. IPA Analysis of the Second-Level Indicators

3.2.1. Index Analysis in Advantage Area. There were three indicators in advantage area, Q6, Q18, and Q20. This showed that the three indicators "teaching content is correct and rigorous," "the teacher helps students kindly, not

perfunctorily," and "the teaching content of the teacher keeps pace with modern times" were considered by students to be more important and had high satisfaction, which had already achieved students' expectation, so teachers should continue to maintain the strength and make persistent efforts.

3.2.2. Index Analysis in Improvement Area. There were seven indicators in improvement area, which were Q8, Q11, Q12, Q15, Q19, Q21, and Q22. However, the four indicators Q11, Q12, Q15, and Q19 were almost on the dividing line between advantage area and improvement area, indicating that students basically recognized their performance. Therefore, the most concerned indicators were Q8, Q21, and Q22, which had the characteristics of low satisfaction and high attention. In the future, reform should focus on the aspects "electric teaching materials are exquisitely made, or the blackboard design is reasonable and neat," "students can learn what they want in class," and "what students learn in class can solve problems in work and life."

3.2.3. Index Analysis in Opportunity Area. There were four indicators in opportunity area, which were Q1, Q5, Q14, and Q17. The three indicators Q1, Q14, and Q17 were almost on the dividing line between opportunity area and maintenance area, which showed that students were satisfied with them, but they did not pay so much attention to them. Therefore, the most typical indicator in this area is Q1; that is, students neither were satisfied nor paid attention to the aspect "hardware conditions of classroom satisfy teaching needs."

On the other hand, the double low area also had the greatest space for improvement, and the school should also pay attention to it.

3.2.4. Index Analysis in Maintenance Area. There were six indicators in maintenance area, which were Q2, Q3, Q4, Q7, Q13, and Q16. However, the four indicators Q2, Q3, Q4, and Q16 were almost on the dividing line between maintenance area and advantage area, which indicated that students were basically satisfied with them. The area should focus on Q7 and Q16, for the reason that students were satisfied with the aspects "teaching tasks are performed accurately, and teaching plans are completed on time" and "the teacher treats every student equally," but they paid insufficient attention, which was also caused by the typical characteristics of adult university.

4. Consistency Test of SERVQUAL and IPA Models

SERVQUAL and IPA models have different calculation methods and different description methods of satisfaction, but they are based on perceived service quality, and the data sources are the same. Firstly, this study used SERVQUAL model to draw the conclusion that students' overall satisfaction is high and the perception difference of practicability

dimension was the largest one. In order to further verify the effectiveness of the conclusion, this article introduced the IPA model, compared and analyzed the conclusions of the two models, and drew the following conclusions.

4.1. The Analysis Results of the Two Models Were Consistent. The conclusions obtained were consistent with both first-level indicators (dimensions) and second-level indicators.

On the one hand, both models showed that the practicability dimension was the one that needed most attention and improvement, which meant students thought that the knowledge learned in class was not enough to provide them with valuable learning support. The empathy dimension performed best, which meant students recognized teachers' empathy and caring for students.

On the other hand, both models indicated that among the second-level indicators, Q21 and Q22 still needed the most attention, which has been described in detail before and will not be repeated here. Q18 was the best one in all the second-level indicators, which showed that students were most satisfied with the aspect "the teacher helps students kindly, not perfunctorily."

4.2. IPA Model Is a Useful Complement to SERVQUAL Model. Firstly, according to SERVQUAL model, the perceived difference of Q7 "teaching tasks are performed accurately, and teaching plans are completed on time" and Q13 "the teacher is good at using modern educational technology" tended to zero. According to IPA model, they fell in the maintenance area, which pointed out the direction for their improvement, and they could be improved from the perspective of improving students' attention level then pushed into the advantage area.

Secondly, according to SERVQUAL model, Q1 had the largest perception difference. According to IPA model, both Q1 and the tangibility dimension were located in the opportunity area. Improvement of Q1 should not only improve students' perception, but also attract students' attention.

5. Countermeasures and Suggestions on Improving Classroom Satisfaction of Students in Independent Adult Universities

From the perspective of service quality, students' classroom satisfaction can be improved in terms of tangible hardware and intangible software. Based on the empirical study of Haizhi and the conclusions of SERVQUAL and IPA model, this article puts forward some suggestions on how to improve students' classroom satisfaction in independent adult universities.

5.1. Improving Hardware Conditions

5.1.1. Upgrading Classroom Facilities and Equipment. If workers want to do well, they must sharpen their tools first. Since the release of the ten years' development plan for education informatization (2011–2020) [10], the teaching

environment of independent adult universities has been greatly improved, the Internet coverage and qualities of multimedia classroom have been significantly improved, high-quality digital education resources are increasingly abundant, and information-based teaching is becoming more and more popular. However, the major setting of adult universities keeps pace with the development of the times, and new majors with strong practicality and practicability keep emerging, which have higher and more professional requirements for classroom hardware facilities and equipment. Therefore, although most independent adult universities have standard desks and chairs and basic multimedia teaching equipment, they still need to combine the characteristics of different majors to improve classroom facilities and equipment. Taking Haizhi as an example, preschool education major should add piano room, practice room, and other training classrooms; health management major should be equipped with sufficient instruments and equipment for students to practice; and teachers should also have sufficient teaching aids for classroom teaching. Once the hardware resources are improved, the perception difference of Q1 will change from negative to positive, which will also make the perception difference of other relevant factors (such as Q21 and Q22 in the practical dimension) positive, so as to improve classroom satisfaction.

5.1.2. Strengthening Informatization Construction. The 13th five-year plan for education informatization [11] issued by the Ministry of Education points out that continuing education should establish a blended teaching and learning mode combining online and offline formats; design the curriculum reform under the background of informatization; and further promote the construction of "three kinds of classrooms," that is, "famous teacher classroom," and "online classroom of famous school." The key points of education informatization and network security in 2019 [12], released by the Ministry of Education, pointed out that new modes and mechanisms of higher continuing education resource construction should be further explored and that the role of digital learning resource opening and online education alliance of higher education should be actively played. Therefore, strengthening information construction and promoting blended teaching are not only the requirements of the Ministry of Education for independent adult universities, but also effective methods to adapt to the development of the times, promote classroom reform, and alleviate the "contradiction between work and study" of adult students. In particular, during the outbreak of COVID-19, information construction has largely solved the problem that "classes suspended but learning continues" for students, providing strong support for the smooth operation of normal teaching. Taking Haizhi as an example, as long as the information platform is well built, teachers can share classroom teaching resources, extracurricular expansion resources, and the latest professional trends on the platform in time. Students who cannot participate in face-to-face teaching can use network learning and communication anytime and anywhere, and the satisfaction of Q13 will be greatly improved.

5.2. Enhancing Soft Power

5.2.1. Strengthening Teaching Management and Improving Service Level. The work of teaching management should be undertaken jointly by the administrative departments and schools. Teaching is the central work of the school, and teaching quality is the lifeline of the school. In order to improve the service level of adult universities, the teaching management of adult universities should strictly comply with the requirements of educational administrative departments and cooperate with other relevant departments. Taking Haizhi as an example, teaching management is not only closely related to the teaching staff department, but also closely related to the publicity of enrollment department, teachers, and head teachers. Therefore, to strengthen teaching management, first of all, it is necessary to avoid overcommitment and avoid artificially raising students' expectations, which will lead to the decline of satisfaction. For example, the average expectation of students majoring in hotel management is as high as 4.96; the head teachers should do a good job in the statistics of students' information, aiming to do a good job of support services, and female students and older and younger students required much more care and help; teachers should follow the principle of "preparing lessons first to prepare students" and have a profound understanding of students' occupation, characteristics, and learning needs through the head teacher before starting classes. During class time, the teaching method and content should be adjusted according to the feedback of students, so that Q21 and Q22 can be improved. In addition, regarding the learning method, younger students should be given more guidance and older students should be given more patience.

5.2.2. Promoting Teachers' Growth Based on Teachers' Training. The outline of national medium and long-term education reform and development plan (2010–2020) explains the teachers training system for continuing education: improve the teachers training system [13], put teachers training funds in the government budget, and implement a five-year cycle for teachers' full-staff training. It also pointed out that it is necessary to attach more importance to the training of counselors and head teachers, deepen teacher education reform, innovate training models, strengthen practice activities, strengthen teacher ethics and teaching abilities, improve the quality of teacher training, encourage universities and enterprises to build a "double-quality teachers" training base, and improve the regular practice system for teachers to get into the enterprise. Therefore, independent adult universities should establish a wholesome system of teachers training and regularly organize diversified teacher training. First, teacher ethics training should be strengthened. Second, the promotion of professional knowledge and skills training should be focused on, and academic exchanges, departmental seminars, and basic skill of teaching competitions should be held regularly. Besides, universities need to encourage teachers to listen to lectures, read reports, learn frontier discipline knowledge, make full use of network resources, study by themselves, and form a good habit of lifelong learning. Finally, the school can also provide teachers with the opportunity to practice in enterprises and prevent

"empty talk" in classroom teaching. Taking Haizhi as an example, only when the teachers training is fulfilled sufficiently and properly, can the teaching method of teachers more touch students' spirits and be more suitable for students, so as to improve the transformation ability of classroom knowledge, fundamentally improve Q21 and Q22, and provide valuable learning support for students.

6. Conclusion

Based on the realistic characteristics of independent adult universities and the perspective of students, taking Beijing Haidian Adult University as an example, this article firstly makes a theoretical and empirical study on students' classroom satisfaction by using SERVQUAL model and then uses IPA model to test the consistency of SERVQUAL results. It is concluded that the analysis results of the two models are consistent. Besides, IPA model is a useful supplement to SERVQUAL model. According to the analysis of the two models, this paper draws the following three conclusions: first, students' classroom satisfaction is 87.99%, reaching a high level; second, students are relatively dissatisfied with the practical dimension and think that the knowledge learned in the classroom is not enough to provide valuable learning support for them; third, the satisfaction of male students is higher than that of female students, the satisfaction of older and younger students is relatively lower, and the satisfaction of preschool education students is relatively the lowest. At the same time, in combination with the documents issued by the Ministry of Education in recent years, this paper puts forward improvement measures and suggestions to improve students' classroom satisfaction in independent adult universities from the two aspects of improving hardware conditions and soft power, which has significant practical guidance for independent adult universities.

Data Availability

The data used to support the findings of this study are included within the article.

Conflicts of Interest

The authors declare that they have no conflicts of interest.

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