

Are Parents Satisfied? Chinese Parent Satisfaction of After-school Child Care Service in Public Elementary School

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ABSTRACT

The issue of after-school care and safety for children has become increasingly important due to the discrepancy between the working hours of parents and the school release times of their children in urban areas of China. This challenge makes it difficult for Chinese schools to establish After-Class Care Services (ACCS) that meet parental satisfaction. Utilizing the SERVQUAL Model as a foundational framework, this paper aims to develop a SERVQUAL scale specifically tailored to ACCS in Chinese primary schools. Our empirical investigation reveals significant gaps in the dimensions of reliability, responsiveness, and empathy, particularly regarding items such as parental involvement in service feedback, the willingness of teachers and staff to serve, and their understanding of the need to provide targeted services. To enhance the quality of ACCS within schools and improve parental satisfaction, several measures are necessary: standardizing service processes, integrating community resources, considering the financial burden on parents, strengthening government oversight, and elevating the overall level of service provision.

Keywords: After-school care service, service quality, parent satisfaction, SERVQUAL Model.

ARTICLE INFORMATION

Received: 27 March 2025

Accepted: 07 April 2025

Published: 08 April 2025

Cite this article as:

Xiuhong Li. Are Parents Satisfied? Chinese Parent Satisfaction of After-school Child Care Service in Public Elementary School. *International Journal of Innovative Studies in Humanities and Social Studies*, 2025; 1(2); 29-42.

<https://doi.org/10.71123/ijishs.v1.i2.25004>

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INTRODUCTION

The challenges faced by parents in Chinese urban cities in picking up their children and the resulting demand for After-Class Care Services (ACCS) have progressively evolved into a significant social and public concern in recent years. The discrepancy between parents' typical working hours, which often extend until 6 PM, and their children's school release time, generally between 3 and 4 PM, creates a dilemma for millions of dual-income parents. This time gap raises critical questions about the care and supervision of children during the interim hours, impacting not only their upbringing but also their safety and personal development. The rapid yet unregulated expansion of the after-school care market exacerbates parental concerns regarding the safety, hygiene, and qualifications of caregivers, as well as the financial implications of utilizing these services.

This issue has prompted an increasing call from parents for primary schools to offer secure and affordable after-school care services. Historical precedents from Europe and the

United States, where the problem of providing care for school-age children gained prominence in the 1980s, serve as valuable examples. These regions moved beyond merely supervising "latchkey children" and developed a variety of after-school programs integrated into public services and national welfare policies. By the 1990s, a comprehensive public welfare childcare system was established, with broad societal participation and an emphasis on the educational benefits of after-school activities for children's physical and mental health.

In France, extracurricular activity centers were introduced to mitigate the burden on dual-income families and ensure children's safety, providing a complementary educational environment that nurtures the child's unique personality and overall well-being. Similar initiatives include after-school care centers in the United States, custodial centers in Canada, and after-school custodial rooms in Japan and South Korea. These international models offer valuable insights for enhancing China's ACCS.

In China, the concept of ACCS for students emerged in the 1990s. Over nearly three decades, the ACCS system for primary school students has transitioned from relying on corporate training institutions, commercial care centers, and various social institutions to a national policy that mandates primary schools to offer on-campus child care services. Furthermore, qualified corporate entities are encouraged to collaborate with schools to prioritize children's physical and mental development and meet parental expectations.

While numerous studies utilize parental satisfaction surveys, it is acknowledged that satisfaction is a subjective and emotional judgment that may not accurately reflect parents' expectations. There exists a notable discrepancy between service providers' perceptions and parents' actual expectations. Thus, the evaluation process necessitates an objective assessment tool and a service quality evaluation model to quantify the gap between perceived services and expectations. This paper aims to construct a theoretical framework and measurement instrument for assessing parental satisfaction and conducts an empirical investigation through surveys and interviews with parents in five public elementary schools in Guangzhou City, China. By analyzing the disparity between parents' expectations and perceived service quality, the study seeks to identify the root causes of issues and propose solutions to enhance the current state of ACCS in Chinese primary schools.

LITERATURE REVIEW

After-School Child Care Service(ACCS)

The concept of After-School Child Care Service (ACCS) is often associated with terms such as "After-school Education," "After-school Project," "After-school Program," and "After-school Care." ACCS serves the function of fostering children's cognitive, social, and emotional development while enhancing their academic achievement. Early research indicated that ACCS contributes positively to children's social development and adjustment. Children engaged in ACCS were more likely to be accepted and acknowledged by their peers, with an increase in positive social behaviors and a notable decrease in problematic behaviors (Howes et al., 1987; Posner & Vandell, 1994; Durlak et al., 2010).

Structured play spaces, well-designed activities, and instruction in emotional management can significantly enhance children's cognitive abilities, emotional expression, motor skills, and social interactions. In the United States, a critical objective of after-school programs is to provide students with adequate time and resources for homework completion while imparting specific learning skills. Furthermore, motivational strategies such as fostering a positive environment, implementing guidance and reward

systems are utilized to encourage students to complete their assignments. Effective communication with school teachers is considered a key factor in the successful execution of homework programs (Mayall et al., 1996; Huang & Cho, 2009; Turmo et al., 2009).

However, some scholars argue that after-school care programs should prioritize recreation and leisure rather than academic achievement (Cartmel & Hayes, 2016; Horgan et al., 2018; Moloney & Pope, 2020). In exploring quality research, satisfaction studies, and influencing factors in ACCS, Pierce et al. (1999) found that the atmosphere, quality of peer interaction, and curriculum in after-school care centers are crucial for children's social and emotional adjustment. Karlsudd (2023) suggested that after-school centers should focus on enhancing children's sense of belonging by promoting participation as a key inclusion factor.

In China, researchers have concentrated on various aspects such as the modes of child care service, existing problems, and the development of countermeasures, curriculum construction, government management, policy analysis, and experiences from ACCS in different countries (Cui, 2017). Most of these studies are qualitative, offering simple descriptions and lacking in quantitative research. In the media, issues concerning the "after-school transportation problems" for primary school students are frequently reported. Currently, research focusing on parental satisfaction with ACCS remains limited.

Parental Satisfaction

Most schools, whether ordinary, prestigious, or specialized, consider parental preferences when implementing reform and reorganization programs. The fundamental premise for parents choosing a school is the provision of quality education and a high level of satisfaction for their children (Raywid, 1980). Many schools strive to enhance parental satisfaction through curriculum development, educational philosophy, and alignment with religious beliefs.

However, parents experience higher satisfaction levels when they can fully exercise their fundamental rights to personal choice and freedom of belief during the school selection process (Goldring & Sharpia, 1993). Additionally, parents' educational levels and the type of childcare facility influence their satisfaction with pre-school childcare centers. The more time and effort parents invest in choosing a school, the higher their satisfaction level tends to be (Kelesidou, 2017; Erickson, 1986).

In the United States, Corinne and Eleanor (2019) concluded that middle-class white parents are generally more agreeable to the school's educational quality and have provided specific feedback on areas for improvement.

Unlike other scholars, Corinne and Eleanor emphasized the importance of timing in the survey process, the design of questions, and the efforts of teachers to aid future researchers in obtaining more accurate parent feedback. Wartenburg (2005) identified four factors influencing parental satisfaction: the importance parents place on their children’s education, their perception of their children’s success, the level of communication between students and parents, and the communication between school administration and parents.

In China, parents are increasingly recognized as an essential evaluative group for educational services. Parental satisfaction is influenced by factors such as teacher quality, environmental facilities, daily management, student academic performance, student stress levels, and parents’ ages. Measuring parent satisfaction aids in refining the school evaluation and assessment system (Zhang, 2003). A survey among parents from diverse backgrounds in Beijing revealed that family socioeconomic status (SES) impacts parental satisfaction (Zhang et al., 2013). In rural areas, the primary considerations for parents when choosing a preschool are the quality of education and proximity to home, whereas tuition costs are more significant than teacher qualifications and the teaching environment. Conversely, in urban areas, factors such as household registration, children’s leadership roles in school, distance to school, school grading, and home-school communication influence parental satisfaction. For parents of migrant workers, education level, average annual family income, children’s academic performance, and class size also significantly

affect their satisfaction (Wang, 2012; Wu et al., 2018). To improve parental satisfaction, schools should ensure basic infrastructure, foster positive teacher-student relationships, share high-quality educational resources, stimulate students’ interest in learning, establish a home-school communication mechanism, and promote collaboration between home and school (Feng et al., 2020).

The existing literature demonstrates extensive and diverse studies on ACCS, encompassing the importance and implementation modes, process control, and quality improvement. While some studies aim to evaluate ACCS, there is a notable gap in research focusing on parental perspectives. Given the subjectivity and variability in parental evaluations, it is crucial to develop an objective and applicable evaluation model and tool to mitigate potential biases and ensure scientific rigor in assessing parental satisfaction.

METHODOLOGY

Research Design

Framework

The Service Quality Difference Model, commonly referred to as the SERVQUAL Model (Fig.1), was conceptualized by three professors from the University of Cambridge—Parasuraman, Zeithaml, and Berry (PZB)—in 1985. This model is designed to assess and measure the quality of services provided by organizations, with a focus on the perception of customers or service users.

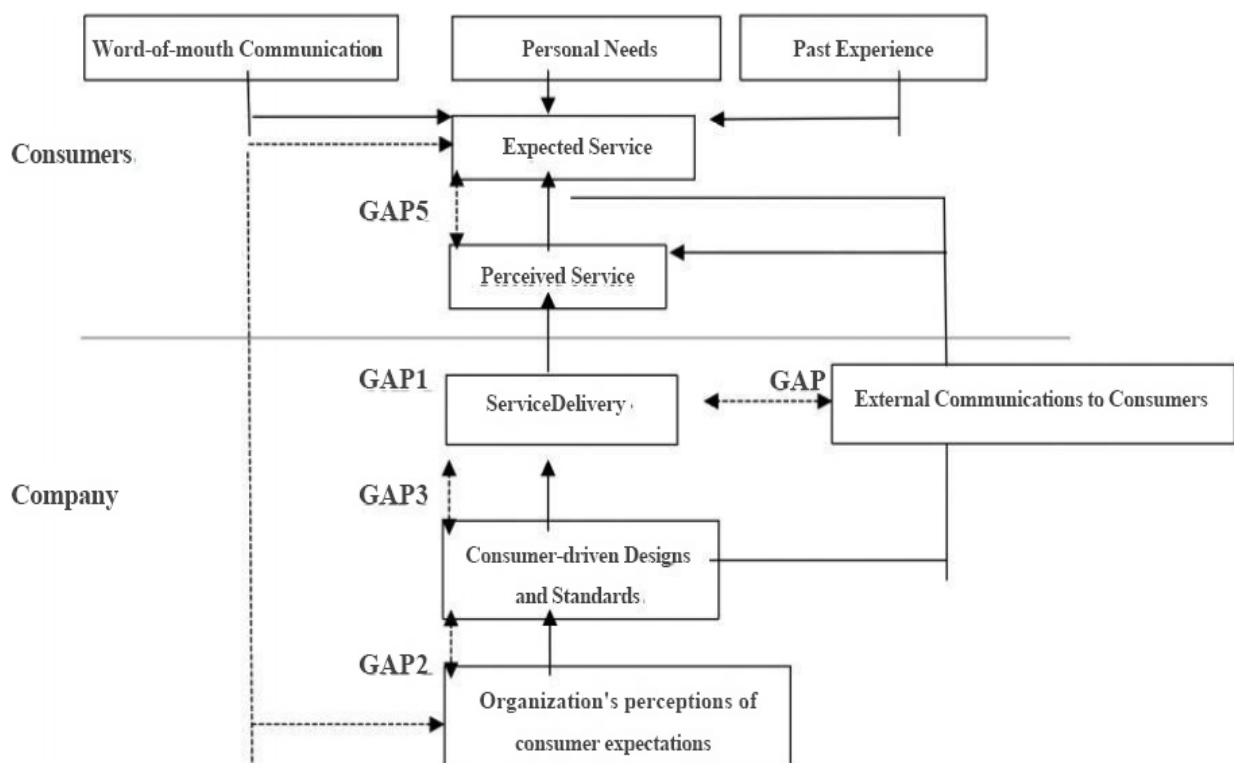


Figure 1. SERVQUAL Model by PZB.

The SERVQUAL Model has been widely employed across various industries globally to enhance service quality and customer satisfaction. It provides a systematic approach for organizations to identify areas needing improvement, align their services with customer expectations, and ultimately deliver higher-quality services. The model identifies five key dimensions contributing to overall service quality:

Tangibles (T): This dimension focuses on the physical appearance of facilities, equipment, personnel, and communication materials.

Reliability (R): Reliability refers to the ability of a service provider to perform the promised service accurately and dependably.

Responsiveness (R): This dimension evaluates the willingness and ability of service providers to help customers and provide prompt service.

Assurance (A): Assurance measures the competence, courtesy, credibility, and security conveyed by the service provider.

Empathy (E): Empathy involves the provider's ability to understand and care about the individual needs of customers.

The model posits that the difference between customer expectations (E) and perceptions (P) across these five dimensions, represented as (P-E), indicates the service quality gap. A positive gap suggests that customer expectations exceed their perceptions, indicating dissatisfaction. Conversely, a negative gap implies that perceptions exceed expectations, leading to customer satisfaction.

The SERVQUAL scale is a simplified and generalizable tool, and PZB did not tailor it to a particular industry. This study examines parents' satisfaction with After-Class Care Services (ACCS) offered by schools using the SERVQUAL model and scale. There is a potential contractual relationship between schools and parents, akin to the relationship between service recipients (customers) and service providers (firms) in the SERVQUAL Model. The government provides education as a public service, with schools serving as the medium for implementing this service. The intention to implement after-school care services is to enhance education for public benefit. Regardless of the manner in which public schools provide ACCS, the school's role as the primary implementer of the service remains unchanged.

While third-party institutions may be introduced as the direct service providers, the school retains responsibilities for management, organization, communication, and coordination. The school acts on behalf of the government

to fulfill the commitment of providing ACCS to parents, mirroring the process of service delivery and external communication in the SERVQUAL Model.

Parents' satisfaction with ACCS directly influences their evaluation of the school's educational services. When implementing ACCS, schools play a crucial role in addressing parents' demands, opinions, and suggestions. Parents communicate directly with schools for feedback and complaints, which schools then relay to service providers to resolve issues and meet parents' demands.

Consequently, to achieve the research significance and goal, many scholars have modified and adjusted the SERVQUAL scale and service quality difference model to suit their respective research fields and topics. They have confirmed the validity and reliability of the scale and applied it to specific research contexts.

In summary, when studying parental satisfaction with ACCS in China, the SERVQUAL Model serves as a foundational framework. However, it requires modification and adjustment to align with the thinking habits of Chinese parents. This paper aims to develop a SERVQUAL scale applicable to the quality assessment of ACCS from the parents' perspective.

SERVQUAL model for ACCS

After conducting interviews and field investigations on the implementation of After-Class Care Services (ACCS) in five public elementary schools in Guangzhou,, it was observed that these public primary schools are collaborating with third-party organizations, such as commercial training institutions, as service providers. These providers are responsible for delivering care services, while the schools take on the roles of organizing, managing, supervising, and coordinating.

SERVQUAL model is then tailored for ACCS (Fig. 2). The discrepancies between parents' perceptions of ACCS and their expectations of ACCS are primarily composed of the following.

Gap 1: Service Providers' Perceptions of Parent-Expected Services

Service providers often have unclear or inaccurate perceptions of the ACCS that parents desire. This gap can be attributed to several factors including:

Lack of Direct Communication: Service providers may not have established direct communication channels with parents or conducted parent surveys, which hinders their ability to understand parents' needs promptly.

Inaccurate Analysis and Interpretation: Even when service providers have some understanding of parents'

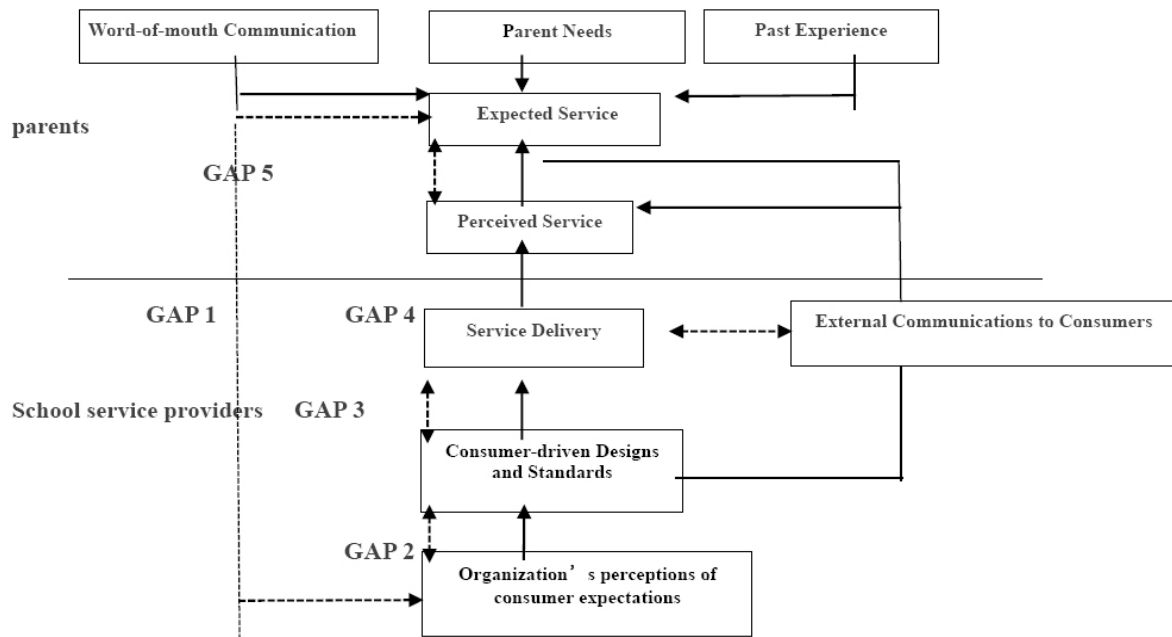


Figure 2. SERVQUAL Model for ACCS

expectations, they may not accurately analyze and interpret these expectations and needs, leading to information distortion and decision-making errors.

Inaccurate Expression of Expectations: Parents may not express their expectations and needs accurately enough, preventing service providers from collecting first-hand information that aligns with parents' needs.

Gap 2: Standards of ACCS

There is often a misalignment between the norms and standards set by service providers and their perceptions of parents' expectations. Contributing factors include:

Poor Communication of Expectations: During the service process, school management and teachers may fail to convey parents' expectations and needs to the service providers responsible for setting service norms.

Lack of Attention to Service Norms: Service providers may not pay enough attention to the service norms of ACCS, failing to implement the standards and levels in practice.

Resource Constraints: Due to limited financial investment and a shortage of human resources, service providers may be unable to meet the facilities and service standards that parents expect.

Gap 3: Delivery of ACCS and Accepted Service Norms and Standards

Parents' needs and rights are left unprotected due to a gap created by service providers' lack of requisite traits, abilities, and attitudes, inadequate training of service staff, and schools' failure to oversee the services as supervisors.

Gap 4: Promised Versus Delivered Services

This gap arises when service providers act dishonestly,

inflating their claims to entice parents to pay for their services. There is a discrepancy between service providers' internal service capabilities and their outward marketing messaging.

Gap 5: Overall Service Experience

Gap 5 is a function of Gaps 1 through 4 and represents the total service experience that parents perceive and feel when using ACCS. This experience often differs from what parents anticipated before receiving the service, directly impacting their satisfaction.

To measure these gaps, PZB developed the SERVQUAL Scale, a widely used tool for assessing service quality. Respondents rate their expectations and perceptions of service on a set of statements related to each dimension. This paper revises and optimizes the scale format to make it more applicable to our research (Table 1). The scale has been modified in terms of grammar and presentation, streamlined from 22 to 18 items to reflect the actual situation, and adjusted in terms of content to capture the unique features of ACCS and parents' perceptions.

Research Questions

This study aims to develop an evaluation scale and conduct an empirical analysis to assess ACCS in Chinese primary public schools, utilizing the SERVQUAL Model and its associated scale. The study seeks to examine the discrepancies between parental expectations and their perceptions of service quality. The research is guided by the following hypotheses:

H1: There is a significant difference between parents' expected service quality and their actual perceived service quality.

Table 1. *SERVQUAL Scale for ACCS*

Level 1 indicators	Level 2 indicators	Specific projects
1. Tangible	1. Service environment 2. Services contents 3. Promotional materials	12. Provide a safe, organized and comfortable classroom environment. 13. A wide range of services are offered, from completing homework in the classroom to interest classes, sports and art activities. 14. Publish detailed and accurate service programs.
2. Reliability	1. Service Commitment 2. Security of services 3. Service enthusiasm 4. Price transparency 5. Communication channels	15. Respect and honor service commitments to parents. 16. Sign a custodial services agreement with parents and purchase student insurance. 17. Be able to help parents deal with problems in a sincere manner. 18. Charges are transparent, open and accurate. 19. There are channels for parents to participate in service advice, monitoring and evaluation.
3. Responsiveness	1. Willingness to serve 2. Service complaints	20. Willingness and initiative to serve. 21. be able to communicate efficiently and resolve parent complaints and grievances positively.
4. Assurance	1. Respect the child 2. Service attitude 3. Service capacity 4. Honest and trustworthy	22. Treat children with respect and courtesy. 23. Kind, patient and willing to help. 24. Rich in specialized knowledge and guaranteed quality of teaching. 25. Service providers and personnel are honest and trustworthy.
5. Empathy	1. Service hours 2. Understanding needs 3. The right to autonomous choice	26. Custodial services are available until 6:00 p.m. to meet the needs of parents. 27. To be able to understand parents' needs and opinions, provide targeted services and improve service quality. 28. Parents are able to choose suitable services for their children on their own, and service organizations do not coerce or interfere with parental choices.
6. economics	1. Reasonable fees	29. The cost of the fee program is reasonable.

Source: Self-organized based on information.

H2: There exists a correlation between parents' perceived service quality and their overall satisfaction.

H3: A correlation is present between the specific dimensions of measured service quality and parents' overall satisfaction.

H4: The majority of parents perceive the quality of ACCS to be within an acceptable range.

Data Collection

Sample

As a Chinese national and educational researcher with extensive experience in the Chinese education system, my familiarity with ACCS offers both insights and potential biases. My insider knowledge allows for a nuanced understanding of the cultural and systemic context, but it

also necessitates a conscious effort to maintain objectivity. To mitigate potential biases, I have employed the SERVQUAL Model for its methodological rigor and have sought diverse parental perspectives. I have also engaged in peer debriefings with colleagues and my tutors who is well experienced in the education research and management to ensure balanced interpretations. While my positionality as a researcher with a vested interest in China's educational outcomes is acknowledged, my commitment to academic rigor and ethical research practices ensures that the findings remain objective and credible.

$$n \geq N \div \left[(a \div k)^2 \times \frac{N-1}{P(1-P)} + 1 \right]$$

In this study, parents from five public elementary schools in District A of Guangzhou City, who have either experienced

or are currently experiencing After-Class Care Services (ACCS), were selected to participate in a service satisfaction survey. District A was chosen for two primary reasons. First, as an economically advanced city, Guangzhou serves as the political, cultural, and educational hub of the region, with a high overall standard of living. Consequently, parents in this district have higher expectations and demands regarding their children’s education and ACCS. Second, District A was one of the earliest pilot districts for the national ACCS policy, providing a representative and practical foundation for studying the implementation of ACCS. For the questionnaire survey, sample size determination formula was employed for a fixed overall sample:

α represents the significance level, k is the quartile of the normal distribution, and N is the overall sample size. In educational research, the significance level α is typically set at 0.05. Given the relationship between the significance level and the confidence level, when α is 0.05, the confidence level is 0.95, and k is 1.96. Assuming a value of p equal to 0.5, the most reliable sample size can be determined.

In this study, the overall population (N) consists of approximately 1,550 parents from the five selected public schools. Using the formula, it is calculated that the sample size (n) should be at least 492. Therefore, a sample size of around 500 was determined to be appropriate for this study. The sampling mean error was calculated to be 0.7 using the sample mean error formula:

$$\mu_x = \sqrt{\frac{\sigma^2}{n} (1 - \frac{n}{N})}$$

A total of 550 official questionnaires were distributed, comprising 113 electronic and 437 paper versions. Among

these, 388 paper questionnaires were validly recovered, resulting in a total of 501 valid responses, achieving an 88.8% recovery rate. This aligns with the reliable sample capacity mentioned earlier. After conducting the preliminary survey and interviews to gather reliable data, the study first analyzed the basic information of the surveyed parents. The second part of the questionnaire underwent gap, correlation, and significance analyses to assess parents’ perceived services and expectations. Finally, correlation analysis was used to explore the relationship between the quality dimensions of ACCS and parental satisfaction.

Instruments

Based on the SERVQUAL scale for ACCS, the questionnaire comprises 32 closed-ended questions divided into three sections: the first part addresses basic information (11 questions), the second part evaluates parents’ service expectations and actual satisfaction (18 questions), and the third part assesses parents’ overall satisfaction (3 questions).

The questionnaire’s final version was developed through two stages to ensure reliable survey results. In the first stage, a pilot test was conducted with 10 parents currently or previously involved with ACCS in five public elementary schools. The aim was to determine if unclear wording or logical inconsistencies in the questions affected parents’ responses, potentially compromising data accuracy. Feedback was then collected through follow-up phone calls with each participant. Based on this feedback and the pilot data, some indicators and question phrasing were refined (see Table 2).

Table 2. Details of questionnaire modifications

title number	original title	Revised title	Reason for modification
4	Your current household location is:	Your reason for enrolling your child in school-based after-school care is:	For the original questions, all parents’ answers were consistent and had no significant impact on the results of the study. The revised questions helped to further understand parents’ needs.
15, 16, 21, 27, 28	service organization	Hosting service organizations	Points to more accurate and comprehensive.
17, 20, 22, 23, 24, 25	Institutional Teachers	Custodial Services Teachers	Points to more accurate and comprehensive.
26	Services are available until 6 p.m.	The service was available until 6pm and was able to meet my needs.	Parents’ answers to the original question were almost “average”, and the way the question was asked may have left parents confused as to how to answer.
29	I think the cost of fee-based programs such as interest classes, sports and art activities is reasonable	Reasonable costs for fee-based programs such as interest classes, sports and art activities.	The original title is clearly subjective and may influence parental judgment.

Data Analysis

Study of Population Characteristics

The initial part of the study consists of 11 questions regarding basic demographic information (see Table 3). Among the parents interviewed, 81% were mothers and 19% were fathers. The majority of these parents were

born after 1980, with 88% holding bachelor’s or master’s degrees. Nearly half of the parents are employed in enterprises and institutions, followed by a notable number of doctors, teachers, and other technical professionals. The average annual income for both parents typically falls within the RMB 200,000 - RMB 500,000 range, classifying them as well-off within the local context.

Table 3. Questionnaire Basic Information

Implicit variable	Independent variable	Items	Sr. No.
Parental satisfaction with ACCS	Parental, family factors	Parenthood	1
		Parental literacy	9
		Annual household income	10
		Parental careers	11
		Reasons for choosing ACCS	4
	child factor	Number of children	2
		Sex of the child	3
		Child’s school year	5
		Children’s academic performance	7
	perceptual factor	Children’s attitudes	8
	The school factor	School level	6

A significant majority of the families are one-child households, though 40% have two children. There is a slight predominance of boys over girls in the ACCS program. The majority of children participating in the ACCS are in the lower primary grades (6-8 years old), with the highest enrollment in second grade (6-7 years old) and fewer participants in the upper grades (9-12 years old). The primary reasons parents selected ACCS were the lack of availability of home supervision after school, the desire for their children to complete homework at school, the enhancement of after-school activities, and the development of their children’s interests.

Validity and Reliability Analysis

The questionnaire was refined using a mature and reliable scale, necessitating a validity test. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy was 0.723. The Bartlett’s test of sphericity yielded a chi-square value of 623.310 with 153 degrees of freedom and a significance level of 0.000 (see Table 4). These results suggest that the questionnaire items are not independent and that there are underlying common factors among the correlation matrices representing the parent groups. This supports the suitability of the data for principal component analysis and confirms the validity of the questionnaire.

The reliability of the questionnaire was assessed using SPSS with a sample size of 501. The Cronbach’s Alpha coefficients for each dimension of the measurement, including tangibles, reliability, responsiveness, assurance, and empathy, were all above 0.6. This indicates a

satisfactory level of reliability for the dimensions assessing service expectations and actual satisfaction.

Gap Between Parents’ Service Expectations and Actual Perceived Service Quality

Figure 3 illustrates that the dimensions of Reliability and Responsiveness exhibit the largest gaps between parents’ service expectations and actual perceived service quality. The most significant disparities are found in the areas of responsiveness from service providers and the schools’ willingness to serve proactively, including their ability to initiate improvements based on parents’ feedback. This suggests that parents expect a higher level of proactivity from schools and care providers, including responsiveness to their comments and complaints through active problem resolution and service enhancement.

Table 4 highlights that questions 15-22 reveal particularly large gaps. This indicates a need for schools and service providers to enhance their efforts in proactive service delivery, problem-solving, and providing channels for service suggestions. The discrepancy between parents’ expectations and actual perceived satisfaction may stem from the inherent variability in service quality due to human factors. Parents might have developed higher expectations based on their previous experiences, word-of-mouth, and promotional materials, which are not always met in practice. This misalignment could result from over-promising by service providers during the care service implementation process, leading to elevated expectations that are not fully realized.

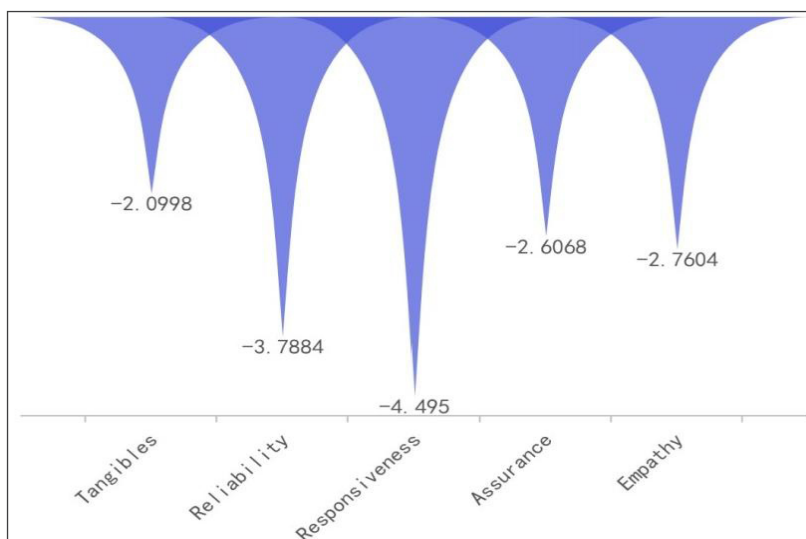


Figure 3. Gap between expectations and perceptions of services in each dimension

Table 4. Service Expectation and Actual Satisfaction Variance Descriptive Statistics by Item

Sr. No.	Expectation (E)	Satisfaction (P)	Gap (P-E)
12	3.79	3.24	-0.55
13	4.28	3.33	-0.95
14	4.04	3.34	-0.7
15	4.52	3.65	-0.87
16	4.62	3.97	-0.65
17	4.47	3.61	-0.86
18	4.51	4.04	-0.47
19	4.18	3.13	-1.06
20	4.51	2.91	-1.6
21	4.55	3.15	-1.4
22	4.52	3.04	-1.48
23	4.93	4.3	-0.63
24	4.87	3.99	-0.88
25	3.92	3.38	-0.54
26	4.99	4.43	-0.56
27	4.19	3.29	-0.9
28	3.94	3.13	-0.81
29	4.19	3.45	-0.74

It is important to recognize that this issue may not necessarily stem from a lack of awareness among schools and service providers. To address these gaps, service providers should focus on managing expectations and improving their responsiveness to ensure that the actual service quality aligns more closely with parental expectations.

In contrast, the remaining eight questions show relatively smaller gaps between expectations and actual experiences. Notably, the four questions related to the assurance dimension demonstrate that parents still appreciate the respect, courtesy, and sense of responsibility displayed by service providers towards their children in the ACCS program.

Testing of Hypotheses

H1: There is a difference between parents’ expected service quality and parents’ actual perceived service quality.

Result: Verified

The hypothesis was tested using paired-sample t-tests on the five dimensions and eighteen items of service quality. The t-values for the dimensions of tangibility, reliability, responsiveness, assurance, and empathy were 18.836, 40.28, 63.149, 39.169, and 32.959, respectively. According to the formula where service quality is defined as parents’ perception minus parents’ expectation, the results showed negative gaps across all five dimensions, which

were significantly different from zero ($p < 0.001$). The t-values indicate that the differences in the dimensions of reliability and responsiveness are particularly pronounced. This confirms that Hypothesis 1 is valid, demonstrating significant differences between parents' expected and actual perceived service quality.

H2: There is a correlation between parents' perceived service quality and parents' overall satisfaction.

Result: Verified

Table 5. Correlation between parents' perceived service quality and parents' overall satisfaction

		Correlation	
		Subtraction	Overall Satisfaction
Overall service quality P-E (Actual Satisfaction - Service Expectation)	Pearson Correlation	1	.034
	Sig.(two-tailed)		.443
	Frequency	501	501
Satisfaction	Pearson Correlation	.034	1
	Sig.(two-tailed)	.443	
	Frequency	501	501

Table 5 shows that the overall service quality (measured as the difference between actual satisfaction and service expectation, P-E) is positively correlated with overall satisfaction, with a correlation coefficient of 0.034, which is significant at the 0.05 level. This indicates that there is a significant positive relationship between the perceived service quality and parental satisfaction. In other words, higher perceived service quality correlates with greater overall satisfaction. This confirms that Hypothesis 2 is valid.

H3: There is a correlation between the measured dimensions of service quality and parents' overall satisfaction.

Result: Not Verified

The correlation analysis between the dimensions of service quality and overall satisfaction, conducted using Pearson correlation, yielded mixed results. Specifically:

- a. Parents' satisfaction with the dimension of "tangibility" was positively correlated with overall satisfaction.
- b. No significant correlation was found between parents' satisfaction with "reliability" and overall satisfaction.
- c. Parents' satisfaction with "responsiveness" was positively correlated with overall satisfaction.

d. No significant correlation was found between parents' satisfaction with "assurance" and overall satisfaction.

e. No significant correlation was found between parents' satisfaction with "empathy" and overall satisfaction.

Table 6 summarizes these findings. a and c were supported, indicating that tangibility and responsiveness are significantly related to overall satisfaction. However, b, d, and e were not supported, suggesting that reliability, assurance, and empathy did not show significant correlations with overall satisfaction. This partial validation indicates that while some dimensions are related to overall satisfaction, Hypothesis 3 was not fully verified.

Table 6. Correlation analysis between dimensions of service quality and overall parental satisfaction

		Correlation					Overall satisfaction
		Tangibility	Reliability	Responsiveness	Assurance	Empathy	
Tangibility	Pearson Correlation	1	-.027	.071	.175**	-.079	.000
	Sig.(two-tailed)		.548	.112	.000	.078	.997
	Frequency	501	501	501	501	501	501
Reliability	Pearson Correlation	-.027	1	.086	.020	-.067	-.084
	Sig.(two-tailed)	.548		.054	.660	.133	.062
	Frequency	501	501	501	501	501	501
Responsiveness	Pearson Correlation	.071	.086	1	.078	-.108*	-.005
	Sig.(two-tailed)	.112	.054		.081	.015	.903
	Frequency	501	501	501	501	501	501
Assurance	Pearson Correlation	.175**	.020	.078	1	-.124**	.026
	Sig.(two-tailed)	.000	.660	.081		.006	.564
	Frequency	501	501	501	501	501	501

Empathy	Pearson Correlation	-.079	-.067	-.108*	-.124**	1	.072
	Sig.(two-tailed)	.078	.133	.015	.006		.108
	Frequency	501	501	501	501	501	501
Overall satisfaction	Pearson Correlation	.000	-.084	-.005	.026	.072	1
	Sig.(two-tailed)	.997	.062	.903	.564	.108	
	Frequency	501	501	501	501	501	501
** . At the 0.01 level (two-tailed), the correlation was significant.							
* . At the 0.05 level (two-tailed), the correlation was significant)							

The lack of significant findings may be attributed to possible limitations in the questionnaire design, though the analysis still reflects a correlation between parents’ perceptions of service quality and their satisfaction.

H4: The majority of parents are within their acceptable range for the level of ACCS quality.

Table 7. Descriptive statistics on whether the level of ACCS quality is within the acceptable range for parents

Item	Answer	frequency	Ratio
Whether the level of ACCS quality received by parents is within their acceptable range	Yes	331	66.1%
	No	72	14.3%
	Don’t Know	98	19.6%

Interview Results

To validate the accuracy of the responses on the parent questionnaire, supplementary interview data were collected. This involved designing 3 interview questions and randomly selecting 15 parents based on convenience sampling.

Q1: What are your expectations of ACCS?

Table 8. Interviewed Parents’ Expectation of ACCS

No.	Expected service	Frequency	Ratio
1	Being able to supervise kids to complete and check the homework	14	93.3%
2	Add more programs like sports, programming, and labor skills	12	20%
3	Ensure kids’ safety	10	66.7%
4	The teaching effect of interest classes should be guaranteed	8	53.3%
5	Small snacks, such as bread and milk, can be provided	8	53.3%

Q 2: How satisfied are you with ACCS?

When asked about their actual satisfaction with the ACCS, the responses from the 15 parents were relatively uniform, indicating a general consensus on their level of satisfaction. The specific responses are compiled in Table 9.

To gain deeper insights, additional probing questions were posed to understand the reasons behind their satisfaction or

Table 9: Interviewed parents’ perceived quality of ACCS

Answer	Frequency	Ratio
Satisfactory	4	26.7%
Not bad/okay	8	53.3%
Dissatisfied	3	20%

Result: Verified

As shown in Table 7, 66.1% of parents reported that the quality of after-school care services provided was within their acceptable range. This supports the validity of Hypothesis 4, indicating that most parents find the service quality satisfactory according to their expectations.

The first interview question aimed to explore the parents’ expectations of the After-Class Care Services (ACCS) based on their personal needs, experiences, word-of-mouth, and external publicity. An inductive analysis of the responses from the 15 parents revealed five key areas of expectation, which are summarized in Table 8.

dissatisfaction. The detailed responses from the interviews are organized in Table 10.

Q3: What are your suggestions for improving the quality of ACCS?

To further understand parents’ perspectives on enhancing the quality of ACCS, the third question sought their suggestions for improvement. These suggestions were

analyzed in relation to the lower-scoring items identified in the earlier questionnaire analysis. The responses, which address areas with the lowest ratings, are summarized in Table 11. This comparison helps cross-check the empirical findings with practical recommendations from parents.

FINDINGS

Gap 1: Misalignment between parents' service expectations and perceptions of service providers.

Gap 1 arises from discrepancies between parents' service expectations and the perceptions of these expectations held by the government, schools, and service providers. This misalignment can lead to unmet expectations and dissatisfaction among parents. Recommendations are as follows:

Enhance communication: Schools and service providers should strengthen communication with parents to better understand their needs and expectations. Regular interactions, such as surveys or focus groups, can help bridge this gap.

Increase transparency: Schools should work on making parents more aware of the actual conditions and capabilities of the school through clear and open communication.

Collaborate with stakeholders: Strengthening collaboration with government agencies, education departments, and social organizations can facilitate better information sharing and responsiveness to parent feedback, address practical difficulties faced by schools, and improve ACCS.

Gap 2: Lack of feasible service standards

Gap 2 results from a failure to translate parents' expectations into realistic and actionable service standards. This gap indicates that service standards may not be adequately aligned with the actual needs and expectations of parents. Recommendations are as follows:

Standardize workflows: Develop and implement standardized workflows for ACCS to ensure consistency and quality.

Conduct comprehensive surveys: Prior to formulating ACCS plans, conduct thorough surveys to assess parents' needs. Utilize the parents' committee to help develop targeted, feasible, and scientific plans.

Develop practical plans: Formulate ACCS plans that are both practical and adaptable, based on the insights gained from parent surveys and feedback.

Gap 3: Discrepancies in service performance

Gap 3 concerns the differences between the expected and actual service performance. This gap highlights the need for improved service delivery and alignment with parent

expectations. Recommendations are as follows:

Train staff: Provide training for service teachers and staff in skills, concepts, and attitudes that align with service standards. Emphasize the importance of adopting a service-oriented mindset.

Enhance program content: Develop distinctive after-school programs that enrich students' experiences. Implement project-based learning to foster innovation, creativity, and teamwork.

Collaborate with external programs: Partner with local colleges, teacher education programs, and other after-school initiatives to optimize resources and opportunities for students.

Consider additional charges: Implement reasonable charges for extra after-school programs to enhance service incentives and quality.

Gap 4: Discrepancies between promised and delivered services

Gap 4 arises from differences between the services promised to parents and those actually delivered. While schools may not intentionally over-promise, gaps between promises and reality can lead to dissatisfaction. Recommendations are as follows:

Manage expectations: Maintain proactive communication channels with parents to clearly define service standards, contents, and levels before services commence.

Clarify service offerings: Ensure that parents have a clear understanding of what to expect from ACCS to prevent unrealistic expectations and potential dissatisfaction.

IMPLICATIONS

This paper presents an empirical method for studying the quality of ACCS in Chinese elementary schools. By analyzing the discrepancies between parents' expectations and their actual satisfaction levels, the paper provides targeted recommendations for improving ACCS quality and enhancing parental satisfaction.

Key Implications

Practical recommendations: The findings offer actionable insights for schools and service providers to address gaps between parent expectations and satisfaction. Implementing the recommended strategies can lead to improved service quality and better alignment with parental needs.

Policy and practice: The study highlights the importance of effective communication and collaboration between schools, service providers, and parents. Strengthening these relationships can contribute to more realistic service standards and enhanced overall satisfaction.

LIMITATIONS

Questionnaire Design: A notable limitation is that many parents scored similarly on questions within the same dimension, which may be attributed to the lack of randomized question options within dimensions. This design flaw potentially affected the accuracy of the findings and the reliability of the questionnaire.

Sample Representativeness: The sample selection was constrained by geographic and convenience factors, leading to a lack of representativeness. Future research should aim for a more diverse and representative sample to enhance the generalizability of the findings.

Additional Variables: Subsequent studies could benefit from exploring additional factors influencing parental satisfaction, such as the natural characteristics of parents and children's satisfaction. This broader approach could provide a more comprehensive understanding of the factors impacting overall satisfaction with ACCS.

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