

Understanding Service Quality And Satisfaction In Education And Training Through The SERVQUAL Model: A Literature Review

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ABSTRACT

Participant satisfaction is a key determinant of success in educational and training programs, influencing engagement, retention, and learning outcomes. This literature review examines how service quality shapes participant experiences by applying the SERVQUAL model, which includes five dimensions: reliability, responsiveness, assurance, empathy, and tangibles. These dimensions reflect critical elements such as consistent delivery, timely support, instructor competence, personalized attention, and adequate learning infrastructure. When educational institutions prioritize these aspects, they not only enhance participants' satisfaction but also improve program effectiveness and institutional reputation. Reliability ensures services are delivered as promised, while responsiveness highlights the importance of prompt support. Assurance builds trust through knowledgeable and credible educators, empathy fosters personalized learning and emotional connection, and tangibles provide the necessary physical and technological resources. By assessing and improving these service quality components through structured feedback and evaluation mechanisms, educational providers can better align programs with learner needs and expectations. The findings offer valuable insights for academic and professional development institutions aiming to increase learner satisfaction and overall program quality. Enhancing service quality is shown to be essential not just for positive learner experiences but also for sustaining long-term success in competitive educational and training environments.

Keywords: satisfaction, service quality, education and training, SERVQUAL

INTRODUCTION

Research provides evidence that quality of service plays a critical role in any industry, as it has a great impact on customer satisfaction, experience, and loyalty (Shi & Shang, 2020). The quality of service is a subjective matter between the actual feelings of customers on the services they experience. In other words, it depends on the comparison between consumers' expectation of quality of service and the actual perceived level of service (Shi & Shang, 2020). Parasuraman et al. (1988) hold that quality of service is the difference between the level of quality of service actually perceived by consumers and the level of quality of service expected.

With increasing competition among educational and training institutions, understanding the determinants of service quality has become more pressing. Customers pay more and more attention to the quality of services provided. Upon receiving any service, consumers have a psychological evaluation of their service, generate satisfaction and define the quality of the service, and set expectations for receiving similar services. The level of satisfaction will affect consumers' loyalty to the service and affect consumers' behavior and characteristics (Shi & Shang, 2020).

The concept of service quality has been widely explored in various industries, including education and professional development. Research suggests that institutional success relies heavily on the quality of services provided, including physical infrastructure, instructor competency, administrative support, and overall learning experiences (Butt & Rehman, 2010). Higher education institutions and training organizations alike need to deliver high-quality learning experiences to remain competitive. Institutions that fail to meet service expectations risk reduced engagement, negative feedback, and declining enrollments (Annamdevula & Bellamkonda, 2016). Additionally, with increasing globalization and student mobility, service quality in education has become a key differentiator for institutions looking to attract and retain learners from diverse backgrounds.

Several studies have examined the factors influencing service quality in educational and training programs, including learning environments, faculty expertise, support services, and technological resources (Deshields et al., 2005). High-quality service provision fosters a positive learning atmosphere, enhancing participant motivation and outcomes. Furthermore, participants' willingness to recommend an institution is a strong indicator of their satisfaction, which can significantly impact the reputation and growth of educational and training organizations (Anilkumar & Sagi, 2012). The integration of technology in educational services, such as online learning platforms and digital support systems, has further reshaped how institutions deliver and maintain service quality. As institutions strive to meet the increasing expectations of learners, integrating a comprehensive service quality framework becomes essential for sustained success.

Education and training institutions need to meet the needs of customers and other beneficiaries through improving their internal management and support systems (Shi & Shang, 2020). In Indonesia, there are hundreds of training centres across the governmental agencies. Each ministry in Indonesia has a number of training centers to train and educate its own employees or civil servants across the country. For example, there are 18 training centres under the Ministry of Religious Affairs which located in provinces across Indonesia to serve the need of education and training for the civil servants under the ministry. *Balai Diklat Keagamaan (BDK) Provinsi Aceh*, one of the training centers under the Ministry of Religious Affairs in Indonesia, has offered a number of education and professional development programs each year since 2013. In 2024 alone, the training center has run approximately 95 education and training programs for various subjects, including administrative and education and religious topics, with more than 3,500 trainees taking part in the programs this particular year. In January 2025, BDK Provinsi Aceh has received an award from International Organization for Standardization (ISO), a worldwide federation of national standards bodies. The certification by ISO is an indication that the quality of service provided by BDK Provinsi Aceh has met the quality set by the international quality assurance standard (personal communication with an employee at BDK Province Aceh, February 2, 2025). However, continuous improvement needs to be put as a priority by the training institution in order to maintain its service quality and to maintain the right to hold the certificate of quality assurance from ISO.

With an understanding that service quality is inherently subjective, it is essential that we use a structured framework to evaluate the components of service quality. This paper uses SERVQUAL model as the lens to understand the service quality, satisfaction, and its

components through the study of the literature as the method of inquiry. To this end, we reviewed relevant literature in the business and education areas from high-quality journals, especially international journals, to ensure the quality of the sources we used. Initially, we used Google Search Engines, especially Google Scholar, to identify what sorts of articles were available that were relevant to our study. In this sense, we first used broad search terms in the search engine, such as satisfaction and service quality, to establish a list of articles around the satisfaction and service quality research. From the initial data obtained using the Google Scholar search, we were then able to list more refined terms, which were used in the area of service quality and satisfaction. The more refined search terms selected for this literature review included SERVQUAL, service quality, customer satisfaction, student satisfaction, professional development, and education and training. The articles selected were only from peer-reviewed journals from multiple databases, including Scopus, Elsevier, and Emerald. The Snowball methods were used to locate relevant and appropriate literature for the purpose of a better understanding of the phenomenon studied. In addition to the discussion on the concept of service quality and customer satisfaction, this paper in particular discusses the SERVQUAL model and its five key components along with their impact on satisfaction. In this case, the focus is on the trainees' subjective expectations on service quality and the actual service quality the training institutions have provided. Findings from this study will provide insights into improving service quality particularly within the education, professional development, and training sectors, benefiting the institutions in both academic and market sectors.

THEORETICAL APPROACH

Service Quality

According to the American Society for Quality Control, quality is the overall characteristics and characteristics of a product/service in terms of its ability to meet predetermined or latent needs that cover all efforts put by a service provider to meet customer expectations (Sugiarto & Octaviana, 2021). Parasuraman, Zeithaml, & Berry (1988) define quality as the state of “zero defect” or “Conformant to requirements”. Service, on the other hand, is an activity or series of activities of more or less intangible nature which takes place in interactions between customers and service employees and/or physical resources or goods and/or systems of the service provider (Annamdevula & Bellamkonda, 2016).

Service quality is a comparative function between consumer expectations and actual service performance (Iacobucci, Ostrom & Grayson, 1995). Service quality is therefore perceived as satisfaction resulting from comparing the service expectations, perceptions, and performance as a measure of how well service delivered matches the customer expectations (Parasuraman et al., 1988). It reflects customers' subjective judgment of the overall service and its attributes (Lee et al., 2020). Service quality is built on comparing two main factors: the customer's perception of the service they receive with the service that is expected/desired (Sugiarto and Octaviana, 2021). Service quality is also perceived as a combination of technical quality - everything that customers are actually getting from service providers and functional quality - how the service has been delivered (Chatterjee et al., 2022).

Although service quality plays a vital role in customer satisfaction, it is worth acknowledging that it is not possible to provide a universal definition of service quality since service quality itself is context-dependent and ever-changing conditions (Chatterjee et al., 2022). This suggests that the measurement of service quality is dynamic and contextual (Chatterjee et al., 2022). It has been one of the most crucial and complex problems facing the service sector's management (Magasi et al., 2022). The positive/negative disconfirmation of the perceived product or service quality from the expected quality leads to a feeling of pleasure/disappointment leading to customer satisfaction (Chatterjee et al., 2022). Favorable perceived service quality will positively influence customers' behavior, exerting a crucial effect on their satisfaction and loyalty (Lee et al., 2020). "The best-perceived service quality lowers customer defection and switch off, fuels more repeat purchase, creates stronger customer loyalty, enhances positive word-of-mouth and cross-selling, lowers price war, forms unique brand identity, builds a reputable corporate image, and also develops and sustains a long-term relationship with customers" (Magasi et al, 2022, p. 18).

Customer Satisfaction

Customer satisfaction is an important aspect of business, including marketing. The term "customer satisfaction" refers to a positive emotional state resulting from a favourable evaluation of the consumer's experiences with a service provided. Findings from research in the field suggest that consumers are happier when supply and demand are dynamically aligned. In addition, providing prompt responses to consumers' requests and having a sense of being heard and understood boost customers' satisfaction (Agag et al., 2024).

Satisfaction is a key aspect of an individual's experience in an educational or professional training program. It refers to the psychological tendency toward an experience that can be either favorable or unfavorable (Lee et al., 2020). Satisfaction is formed by subjective comparisons between expectations and actual experiences (Alcocer & Ruiz, 2019). In the context of educational and training programs, satisfaction arises when participants perceive that the program has met or exceeded their expectations, contributing to their personal and professional development (Hamzah & Shamsudin, 2020). It is a function of the discrepancy between their prior expectations and perception regarding the service they experience (Iacobucci, Ostrom & Grayson, 1995).

Satisfaction in education and training programs is a complex construct influenced by various factors such as the quality of instruction, relevance of content, accessibility of resources, and the effectiveness of program delivery (Alemu & Cordier, 2017). Participants seek value in training programs that enhance their skills, knowledge, and career prospects. Programs that consistently deliver high-quality instruction and relevant content significantly impact participant satisfaction and engagement (Lee et al., 2020).

Educational institutions and training providers should prioritize participant satisfaction, as it directly affects retention rates, program reputation, and overall success. Satisfied participants are more likely to complete their programs, recommend them to others, and pursue further learning opportunities. Conversely, dissatisfaction can lead to negative feedback, decreased enrollment, and reputational damage. Institutions must actively seek feedback and continuously improve program offerings to align with participants' needs and expectations (Hamzah & Shamsudin, 2020).

Satisfaction is an aspect of attitude (Hamzah & Shamsudin, 2020). Attitude itself refers to one's psychological tendency toward an object, which can be either favorable or unfavorable (Lee et al., 2020). Satisfaction is formed by subjective comparisons between perceptions and expectations (Alcocer & Ruiz, 2019). It refers to 'the response of the individual to a cognitive process where the experience of consumption is compared with his expectations' where individual's emotional experiences and responses influence their perceptions and expectations which ultimately influence their satisfaction (Alcocer & Ruiz, 2019, p. 6). In this sense, emotions are significant predictors of attitude and behavior toward satisfaction (Alcocer & Ruiz, 2019). "Thus, satisfaction is about customers' appraisal of how effectively the product and its attribute performances have fulfilled their needs and wants" (Lee et al., 2020, p. 351). It is the condition where the customers have positive experiences over a product or services as they meet their expectations or even go above and beyond their ordinary wants (Hamzah and Shamsudin, 2020). In this sense, customer satisfaction is an outcome of the customer's perception of the service quality (Magasi et al., 2022).

SERVQUAL Model

SERVQUAL, which stands for Service Quality, was a model formally proposed by three American marketing experts Parasuraman, Zeithaml, and Berry in 1985. The model was used to measure consumers' service perception. Its core is to understand the gap between consumers' actual perception of service quality and their expectation of service quality. It consists of five key dimensions: reliability, responsiveness, assurance, empathy, and tangibles (Parasuraman, Zeithaml & Berry, 1985).

1. Reliability refers to the ability of service providers to provide consumers with the reliability and consistency of quality services and the ability to accurately fulfill service commitments that meet customers' expectations.
2. Responsiveness measures how quickly and effectively an institution reacts to participant needs in a timely manner.
3. Assurance relates to the confidence and trust customers have in the service providers. In this sense, service providers need to build rapport with the customers.
4. Empathy deals with the ability of service providers to understand and accommodate the diverse needs of customers through providing emotional care and extended emotional support to the customers.
5. Tangibles encompass the physical structure of the equipment provided by the service, the associated service facilities and the appearance of the service personnel.
6. Research suggests that these dimensions are crucial in determining customer satisfaction.

The quality of services provided by any service provider in meeting customers' needs in the form of their quality of infrastructures, service consistency, care and support, trust and rapport, and prompt response will greatly affect customer satisfaction. The better the service quality will be the more satisfied the customers will be with the service provider (Sugiarto & Octaviana, 2021). In the context of education, institutions that focus on improving service quality in these areas can enhance participant engagement, learning outcomes, and program effectiveness (Magasi et al., 2022).

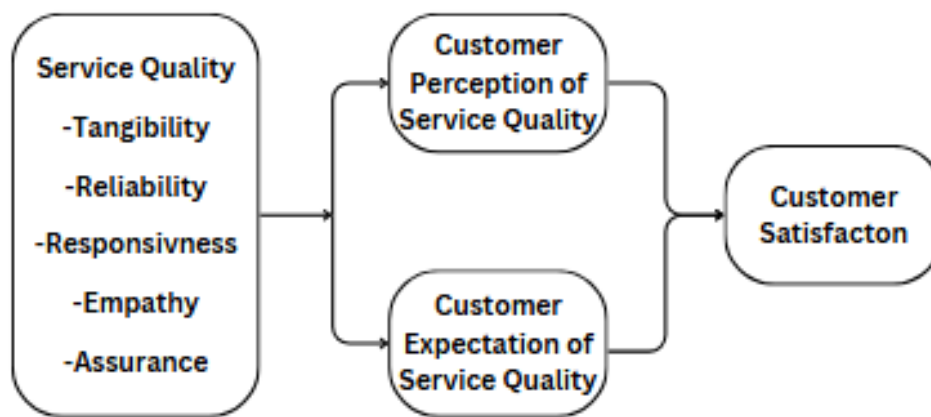


Figure1: Evaluation of service quality and customer satisfaction

FINDINGS AND DISCUSSION

This section provides a discussion on the five dimensions of SERVQUAL. The literature reviewed in the field of business and education is brought into the context of training and professional development by looking at each dimension and its impact on participants' (trainees) satisfaction when receiving a service in a particular training session they attended.

Reliability to Promised Services

Reliability in the context of educational and training programs refers to the institution's ability to consistently deliver high-quality services that meet participant expectations. This includes adherence to course schedules, the accuracy of grading and evaluations, and the consistent availability of learning materials (Zeithaml et al., 2018). A reliable program ensures that instructors maintain high teaching standards, academic schedules are strictly followed, and learning resources such as textbooks, digital materials, and technical support are readily accessible (Parasuraman et al., 1988). Institutions that exhibit high reliability foster trust and credibility, enhancing student satisfaction and engagement (Sultan & Wong, 2012). When trainees perceive that the institution consistently meets its commitments, they develop a stronger sense of engagement and confidence in the program, which ultimately leads to better learning outcomes and reduced dropout rates (Wilkins & Balakrishnan, 2013). In this sense, a training centre needs to have a clear form of instructions of what is allowed and not during the training session, including expected behaviour. Meanwhile, the institutions must adhere to the standards they have set, including providing a positive learning and teaching environment that fosters a positive teaching and learning experience both for trainers and trainees.

Administrative reliability is equally crucial in ensuring smooth academic processes. This includes efficient enrollment procedures, prompt issuance of transcripts and certifications, and transparent academic policies. Inefficiencies in these areas can lead to frustration and diminished trainee confidence in the institution (Teeroovengadum et al., 2019). Therefore, structured policies and quality control mechanisms must be in place to ensure that all academic and administrative services operate efficiently. Institutions should continuously monitor and evaluate their service delivery to maintain a high standard of reliability in their educational and training programs. Regular feedback from trainees and

staff can help identify areas for improvement, ensuring that the institution remains responsive to changing educational needs.

Reliability also extends to the institution's ability to adapt to external factors such as technological advancements and policy changes. The integration of new educational tools and digital platforms such as Kami, Kahoot!, Wakelet, Edmodo, Edpuzzle, Canva, Zoom, Google Meet, Google Classroom, Nearpod, and Quizlet must be done seamlessly to avoid disruptions in learning. Institutions that invest in infrastructure upgrades and continuous improvements demonstrate their commitment to maintaining reliability. By fostering a dependable learning environment, educational institutions can strengthen their reputation and ensure long-term success for both trainees and the institution.

Responsiveness to Participants' Needs

Responsiveness in educational and training programs measures how quickly and effectively an institution reacts to participant needs. This includes providing timely feedback on assignments, resolving technical issues efficiently, and maintaining open communication channels with learners (Magasi et al., 2022). High levels of responsiveness contribute to a positive learning experience and reinforce participants' sense of belonging within the institution (Dabholkar et al., 2000). When institutions prioritize responsiveness, participants feel supported and are more likely to remain engaged in their learning journey.

A key component of responsiveness is the ability to provide immediate support when participants face challenges. Instructors and support staff should be readily available to address inquiries and concerns through various communication platforms such as emails, discussion forums, virtual office hours, and real-time chat support. Timely and accurate responses help build a supportive learning environment where participants feel valued and heard. Institutions that demonstrate high responsiveness not only improve learner satisfaction but also create an atmosphere conducive to academic success.

Furthermore, responsiveness involves institutions being adaptable to the evolving needs of participants. This includes incorporating participants' feedback into curriculum development, adjusting teaching methods based on learner preferences, and introducing new technologies that enhance accessibility (Huang et al., 2020). Educational providers that foster a culture of responsiveness ensure that their programs remain relevant and engaging. Institutions must also proactively address external changes, such as updates in industry standards or shifts in learning trends, to provide students with up-to-date knowledge and skills. By maintaining a high level of responsiveness, educational institutions can enhance participants' motivation, retention, and overall success.

Assurance to Trust

Assurance in education relates to the confidence and trust that participants place in an institution and its instructors. It is influenced by factors such as faculty expertise, institutional accreditation, and the transparency of academic policies (Ali et al., 2016). Highly qualified instructors with strong subject knowledge and effective teaching strategies contribute to higher assurance levels among learners (Lee et al., 2020). When learners trust their educators and the institution's credibility, they are more likely to engage in the learning process and achieve better outcomes. As it is observable, there are some occasions where

trainees were outside the learning space, such as the classrooms, due to boredom of being in the class since they did not find the topic being delivered in class as interesting enough. Many times, it was due to a lack of interest in the way the materials were delivered by the instructors during a particular session.

Institutions must also clearly define academic expectations, including grading criteria, assessment procedures, and certification requirements. Transparent and ethical policies help learners understand institutional standards and ensure fairness in evaluations. This will also set the standards for the learners if they want certain grades to achieve as a result of their own learning. Upholding high academic integrity and ethical practices further strengthens the credibility of the institution and enhances learners' confidence (Palli & Mamilla, 2012). Additionally, institutions should implement measures to maintain transparency in decision-making, such as providing clear guidelines on grading, academic appeals, and learners' rights.

Another crucial aspect of assurance is continuous professional development for the institution faculty members. Ensuring that instructors remain current with trends and best practices enhances their ability to provide quality education. Professional development for staff and instructors will ultimately enhance not only the ability of the staff and instructors to perform their tasks well but also will enhance the learning experience of the learners, which in the end will promote trust in the institution. Institutions should also promote accreditation and partnerships with recognized educational bodies to reinforce their credibility. By strengthening assurance, educational programs can cultivate a culture of trust and excellence that benefits both learners and the institution.

Empathy to Diverse Needs

Empathy in education refers to the institution's ability to recognize and accommodate the diverse needs of learners. Personalized support services, inclusive teaching methods, and accessible learning resources contribute to a supportive and inclusive educational environment (Hogan, 2018). Institutions that actively listen to learners' concerns and implement tailored learning approaches enhance learners' motivation and engagement (Zhang et al., 2016). A student-centered approach is fundamental to demonstrating empathy in educational settings, as it acknowledges the unique backgrounds, learning styles, and challenges faced by participants.

Empathy is also reflected in student-centered policies, such as accommodations for learners especially for those with disabilities, flexible learning schedules, and other assistance programs as necessary. Providing mentoring programs, counseling services, and peer support initiatives can further enhance learners' well-being and academic success. Institutions should encourage faculty members to build meaningful relationships with learners, fostering an environment where participants feel comfortable seeking guidance and assistance.

Inclusivity and accessibility should be key priorities for institutions striving to promote empathy. This includes offering multilingual resources, ensuring campus facilities accommodate learners with special needs, and fostering a culture of diversity and acceptance. By prioritizing empathy in their educational programs, institutions can create

an environment where learners feel valued, supported, and empowered to achieve their academic goals.

Tangibles to Infrastructures and Resources

Tangibles refer to the physical and digital infrastructure that supports the learning experience. This includes modern classrooms, well-equipped laboratories, comprehensive libraries, and intuitive online learning platforms (Clemes et al., 2008). The quality and accessibility of these resources significantly impact learners' satisfaction and learning outcomes (Jimenez-Bucarey et al., 2021). Institutions that invest in state-of-the-art technology and well-designed course materials enhance the overall educational experience.

Well-maintained facilities contribute to a productive learning environment by providing learners with comfortable and engaging spaces. High-speed internet access, fully equipped laboratories, and collaborative study areas further enrich the academic setting. In online learning contexts, user-friendly platforms with intuitive navigation, multimedia resources, and real-time support play a critical role in delivering quality education.

As technology advances, institutions must ensure regular upgrades to their digital and physical infrastructure. Investing in interactive learning tools, augmented reality (AR), and artificial intelligence (AI)-based tutoring systems can enhance engagement and comprehension. By continuously improving tangible aspects of education, institutions can create an enriched learning environment that supports academic excellence and student satisfaction.

Service Quality and Learners' Satisfaction

Research in business, health, education, and many more provides evidence that the quality of service is the superior antecedent of customer satisfaction (Afthanorhan et al., 2019). In an increasingly competitive landscape, educational and professional training institutions must prioritize service quality to enhance participant satisfaction and ensure retention. Whether in academic settings or corporate training programs, service quality is a significant determinant of perceived value and effectiveness (de Jager & Gbadamosi, 2013). Institutions must ensure that their services align with the needs and expectations of learners, as satisfaction directly influences continued participation and positive word-of-mouth recommendations (Price et al., 2003). Furthermore, advancements in technology and evolving learner preferences demand continuous service improvements to maintain relevance and effectiveness, particularly in the context of digital transformation.

Service providers including educational and training institutions need to place service quality as the top priority in their management. The institution needs to continuously focus on identifying the needs of learners and making sure that these needs are met (Afthanorhan et al., 2019). Obtaining the certification of ISO 9001:2015 can be an indication that an institution has somehow met the standards for service quality assurance as part of the quality management systems. *Balai Diklat Keagamaan Provinsi Aceh*, for instance, has successfully obtained the certification from the International Organization for Standardization (ISO) to ensure that the education and training provided in the training centre has met the standards of the service quality. This includes the management system, the curriculum, facilities and infrastructures, the trainers' quality, learning materials, the

process of delivery, and accommodation. As the levels of quality of service performances increase, it is expected that the level of customer satisfaction will increase accordingly. Users of the service provided by the institution will be satisfied by their experience during their interactions with the service provider. This can be achieved when the service provider maintains the quality of their tangibility, assurance, empathy, reliability, and responsiveness for each service they offer to the users and their beneficiaries.

CONCLUSION

Applying the SERVQUAL model to educational and training programs provides a structured approach to assessing and improving service quality. Institutions that enhance reliability, responsiveness, assurance, empathy, and tangibles create superior learning experiences, leading to higher participant satisfaction, engagement, and long-term success.

Reliability ensures that institutions consistently meet their commitments by maintaining structured course schedules, transparent academic policies, and efficient administrative services. When trainees can depend on the institution's stability and consistency, they are more likely to remain engaged and complete their programs successfully. Furthermore, institutions that prioritize reliability build strong reputations, attracting more learners and fostering trust within the academic community.

Responsiveness plays a critical role in maintaining a dynamic learning environment. Institutions that promptly address student concerns, provide timely feedback, and adapt to evolving educational needs create a more inclusive and supportive atmosphere. The ability to swiftly implement changes based on learners' feedback and technological advancements ensures that educational programs remain relevant and effective. By fostering an open and communicative environment, institutions encourage a culture of continuous learning and improvement.

Moreover, assurance, empathy, and tangibles work together to strengthen the overall educational experience. Assurance, through qualified instructors and clear policies, instills confidence in learners. Empathy ensures that learners feel valued and supported, particularly those from diverse backgrounds or with special needs. Meanwhile, tangible resources such as modern classrooms, digital tools, and well-equipped libraries contribute to a stimulating and accessible learning environment. By integrating these elements, educational institutions can significantly enhance their service quality and achieve long-term success in fostering learners' achievement and satisfaction.

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