

Perceived Effects of Quality of Pre-Primary Education Services on Parents' Satisfaction in Dar es Salaam, Tanzania

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Abstract

This study investigated the effects of perceived quality of service dimensions on parents' satisfaction with pre-primary education in Dar es Salaam region. A descriptive survey research design guided the study and self-administered questionnaire was used to collect data from a sample of 772 parents with children in pre-primary classrooms. Descriptive and inferential statistics were employed to analyse data. Results revealed that four dimensions in perception of quality, namely classroom characteristics, teacher behaviour, parents' involvement and physical environment had a significant and positive effect on overall parents' satisfaction. These results indicate that quality of pre-primary education service is indeed a significant predictor of parents' satisfaction. Thus, improving quality of pre – primary education service results in higher satisfaction levels of parents.

Keywords: *parents' perception, parents' satisfaction, quality of pre-primary education*

Introduction

In recent years, the demand for pre-primary education has increased. Parents are taking their young children to a variety of pre-primary schools with a range of service qualities. High quality pre-primary education has been linked to various benefits such as language, literacy and mathematics skills development, better attitude towards school and better relationships with peers (Burchinal, Zaslow & Tarullo, 2016; OECD, 2017). In cognisance of the increasing demand and importance of quality pre-primary education, researchers and professionals have provided a definition and developed standards of quality pre-primary education. However,

voices of parents as key stakeholders in pre-primary education are often unheard in these deliberations and processes. Despite this fact, parents have continued taking their children to various pre-primary education classes and centres. This raises the question of how parents perceive the quality of pre-primary education and whether they are satisfied with it.

Omar, Nazri, Abu and Omar (2009) and Silva (2006) contend that involving parents in Early Childhood Education (ECE) service quality evaluation is critical as parents make choices about the type of school to enrol their children by paying for the services provided. School selection decisions and good school search behaviours of parents are affected by parental satisfaction. Therefore, exploring parents' perceptions of and satisfaction with pre-primary education is imperative.

There has been a vast amount of studies that empirically investigated the relationship between service quality and customer satisfaction in various types of service sectors such as higher education (Chandra, et.al., 2018; Meštrović, 2017), banking (Hennayake, 2017; Ulaya, 2017; Vencataya, et al, 2019), supply chain and logistics (Yeo, Thai & Roh, 2015; Yuen & Thai, 2015), telecommunication (Ali, 2017; Ojo, 2010), and health (Ismail, Zaki & Rose, 2016). However, most of the studies were conducted outside Tanzania. In addition, despite the existence of these studies, very little attention has been given to the education sector in general and pre – primary education in particular. This means that the impact of service quality on customer satisfaction with pre primary education has not received adequate research attention in Tanzania. This study, therefore, attempted to fill this gap by examining the relationship between perceived service quality and customer satisfaction with pre-primary education in Dar es Salaam region in Tanzania. The objectives were to: establish parents' perceptions of the quality of pre-primary education; and find out if there is a relationship between perception of pre-primary education service quality and parents' satisfaction. The study was guided by one hypothesis: There is significant relationship between perception of pre-primary education service quality and parents' satisfaction.

Literature Review

Perceived service quality in pre-primary education

The definition of quality may vary from one person to another and is a context-determined concept. The definitions of service quality vary only in wording but typically involve determining whether the perceived service delivery meets customer expectations (Parasuraman, Zeithaml & Berry, 1988; Ramya, Kowsalya

& Dharanipriya, 2019). In addition, perceived service quality has been defined as customer's judgment or attitude relating to the overall excellence of the service (Zeithaml, 1988). A number of researchers agree that the concept is multidimensional, although there has been no consensus regarding the number and the nature of the dimensions (Prakash & Mohanty, 2012).

However, service quality is often measured using SERVQUAL instrument, developed by Parasuraman et al. (1988). The instrument consists of 22 items which measure five service-quality dimensions, namely tangibles such as physical facilities, equipment, and appearance of employees, reliability which is the ability to perform the promised service dependably and accurately, responsiveness which refers to willingness to help customers and provide prompt service, assurance which means knowledge and courtesy of employees and their ability to inspire trust and confidence, and empathy – the caring and individualised attention the firm provides to its customers.

Although the notion of service quality is subjective, in this study, service quality was measured based on the concept of quality in Early Childhood Education (ECE). It comprises two dimensions, the structural and process quality. These are the mostly used approaches in measuring the quality of early childhood programmes (Ishimine, Tayler & Thorpe, 2009). The structural quality includes physical environment, classroom characteristics and teachers' qualifications, whereas the process quality includes children's experiences, teachers' behaviour and parents' involvement.

Customer satisfaction

Customer satisfaction is broadly defined as a difference between customers' expectations and experience performance after using a service and/or product at a certain period (Ismail, Zaki & Rose, 2016). According to Oliver (2010) customer satisfaction is a judgment that the product or service meets their needs and expectations. If the product's performance falls short of expectations, the customer is dissatisfied. If performance matches expectations, the customer is satisfied and if performance exceeds expectations, the customer is highly satisfied or delighted (Kotler, 2006). According to Hennayake (2017) customer satisfaction may drop if he 'gets too much of a good thing'. People focus upon the lower threshold and neglect the potential for an upper threshold. Outcomes of satisfaction feelings may involve intent to repurchase, word-of-mouth and complaints. Ojo (2010) asserted that the dissatisfied customer might tell seven to 20 people about their negative experience, while satisfied customer may only tell three to five people about their positive experience.

High customer satisfaction leads to repeat purchases, loyalty, retain customers and word-of-mouth promotion to friends. Satisfied customers are more likely to repeat buying products or services (Kotler & Armstrong, 2006). They will also tend to say good things and to recommend the product or service to others. On the other hand, dissatisfied customers respond differently. Dissatisfied customers are associated with complaining behavior, and may try to reduce the dissonance by abandoning or returning the product (Eshetie, Seyoum, & Ali, 2016; Kotler & Armstrong, 2006). Parents are consumers and partners in pre-primary education because they make various decision particularly in selecting schools for their children. Therefore, increasing parents' satisfaction is considered as one way of improving the quality of pre-primary education services.

Perceived service quality and customer satisfaction in pre-primary education

A review of literature indicates that service quality is one of the main antecedents of customer satisfaction ((Chandra, et.al., 2018; Meštrović, 2017; Vencataya, et al., 2019). Implying that organisations that provide better service quality also have more satisfied customers. However, this relationship is examined in different service contexts and in different countries. In basic education, İncesu and Aşıkil (2012) conducted a study in Turkey to investigate the effect of the five dimensions of service quality in primary education on parents' satisfaction. The research involved 293 randomly selected parents who responded to a five-point Likert scale. The results revealed that four dimensions in service quality, namely tangibility (equipment, teaching materials), reliability (consistency in service provision), empathy (personal care and individualized attention) and assurance (teachers' kindness and knowledge) were the critical factors in explaining parents' satisfaction. The present study was done in pre-primary education and included both public and private schools. Furthermore, researchers reported that service quality significantly influenced customer satisfaction in childcare centres in Taiwan (Jang, 2008) and Malaysia (Omar, et al., 2009). Even though the literature supports the idea that education service quality is related to customer satisfaction, research in the education sector on this relationship, particularly in the context of pre-primary education, is scant and the subject deserves further investigation.

Methodology

A descriptive survey research design guided the study and self-administered questionnaire was used to collect data from a sample of 772 parents with children

in pre-primary classrooms. The study employed a quantitative research approach and utilised a descriptive survey research design to assess the perceived pre-primary education service quality and parents' levels of satisfaction. The questionnaire was used to collect data whereby questionnaire items were constructed and adopted from the existing literature review. It comprised 18 items on parents' perceptions of pre-primary education quality and 17 items on parents' satisfaction levels. A four – point Likert scale ranging from 4 'strongly agree' to 1 'strongly disagree' was used for this purpose. The Cronbach's alpha coefficient was calculated to test the scale's reliability. The Cronbach's alpha for the entire questionnaire was 0.80. This implies that the questionnaire was highly reliable.

Descriptive statistics by using means and standard deviations were computed to determine parents' perceptions of quality. Parents' responses (mean scores) were divided into two perception levels: (1) low perception with a range of 2.01 to 2.99 and (2) high perception with a range of 3.00 to 4.00. The greater the mean score, the higher the perception of pre-primary education quality. The bivariate correlation analysis and multiple regression analysis were performed to test and evaluate the null hypothesis at a significance level of 0.05.

Results and Discussion

To establish parents' perceptions of the quality of pre-primary education the two approaches of ECE quality were classified in six dimensions that were measured using 18 specific items. Results are as presented in Table 1.

Table 1: Mean Scores of Parents' Perceptions of Pre-Primary Education Quality

Category/Item	Mean	SD
Structural Quality	2.99	.568
<i>Physical environment</i>	3.08	.618
There is adequate indoor space.	3.16	.793
Classroom learning materials like textbooks, pictures, charts are available.	3.13	.848
Classroom furniture (tables, desks, chairs) are available.	3.21	.857
There is adequate outdoor space.	3.20	.924
Outdoor play equipment are sufficient.	2.44	1.012

Toilets are available.	3.31	.718
Toilets are hygienic.	2.92	.922
Water is available.	3.27	.750
Classroom characteristics	2.52	.901
Teacher to child ratio is lower than 1:25.	2.76	1.011
Number of children in class is less than 25.	2.30	.977
Teacher qualifications	3.25	.662
Teachers have some ECE training.	3.21	.743
Teachers have some working experience with young children.	3.28	.718
Process Quality	3.08	.608
Teachers' behaviour	3.30	.617
Teachers are warm and patient.	3.34	.673
Teachers are willing to help children to solve their problems.	3.27	.700
Children's experiences	3.08	.823
Appropriate activities which are stimulating and developmentally appropriate are offered.	3.08	.823
Parents involvement	2.93	.767
Parents-teacher meetings are held to discuss children's progress at least once a year or at parents' request.	3.33	.895
Parents are involved in decision making roles about improving the school.	3.10	.874
Parents are involved in academic activities like (storytelling, field trips or collection of local materials for children's learning).	2.37	1.046
Overall Perceptions of Quality	3.03	.544

Note: Perception scale: 1: strongly disagree, 2: disagree, 3: agree to 4: strongly agree

The overall mean score for the parents' perception of pre-primary education quality was 3.03 (SD = .54). The results imply that parents' perceived that their children's pre-primary education possesses high quality. The average mean of all items in the structural category was 2.99 (SD =.56). With regard to process quality, the average mean score was 3.08 (SD = .60). These results indicate that the average score for process quality was greater than that of structural quality. It was therefore concluded that parents' perceived pre-primary education as having higher quality

on the basis of process variables than structural indicators. This is in line with Jang (2008) who found that Taiwanese parents perceived their child care centres as having higher quality in the process variables than in the structural features. As a result, parents were more satisfied with process quality than structural quality of their children's programme.

The lowest mean was 2.30 for the item 'number of children in class is less than 25'. This indicates that parents' perception of pre-primary education quality based on the number of children in class was low as compared to other items. However, the standard deviation for this item was .98. This indicates that there was a high disagreement of pre-primary education quality among parents with regard to the number of children in class. On the other hand, the item 'teachers are warm and patient' had an average mean of 3.34 (SD = .67) indicating that parents' perception of pre-primary education quality based on teachers' behaviours was high.

In order to find out if there was a relationship between parents' perception of the service quality and their satisfaction with pre-primary education, the null hypothesis: '*there is no significant relationship between perception of pre-primary education service quality and parents satisfaction*' was tested. This research employed a bivariate correlation analysis using Pearson product-moment correlation coefficient to determine the relationships between parents' perception of pre-primary education service quality and parents satisfaction. Results are presented in Table 2.

Table 2: Pearson Product-Moment Correlation Coefficient between Perception of Pre-Primary Education Quality and Parents' Satisfaction

		Overall Perception	Overall Satisfaction
Overall Perception	Pearson Correlation	1	.880**
	Sig. (2-tailed)	.772	.000
	N		772
Overall Satisfaction	Pearson Correlation	.880**	1
	Sig. (2-tailed)	.000	.772
	N	772	

The results show that correlation coefficient between parents' perception and satisfaction with the quality of pre-primary education was significantly high ($r = .880, p = .000$). The results indicate a positive and significant relationship between parents' perception of pre-primary education service quality and their satisfaction. Therefore, the null hypothesis, that there was no significant relationship between perception of pre-primary education service quality and parents' satisfaction, was rejected. The high correlation implies that parents with higher levels of perceptions of quality were more likely to be very satisfied with the quality of pre-primary education.

In order to further find out the connection between perception of quality and satisfaction with quality of pre-primary education, a Multiple Regression analysis was used. The overall satisfaction with quality was treated as a dependent variable and six dimensions that measured perception of quality were treated as independent variables. Table 3 shows the model summary of the correlation.

Table 3: *Model Summary of the Relationship between Perception and Satisfaction*

R	R Square	Adjusted R Square	Std. Error of the Estimate
.883 ^a	.781	.779	.26428

- a. Predictors: (Constant), children's experiences, classroom characteristics, teachers' behaviours, parental involvement, physical environment, teachers' qualifications
- b. Dependent Variable: Overall satisfaction

The summary on how much of the variance in the dependent variable (parents satisfaction) is explained by the model. This includes the variables of children's experiences, classroom characteristics, teachers' behaviours, parental involvement, physical environment and teachers' qualifications. In this case the coefficient of determination R^2 value is 0.781, which means that 78.1% of parents' satisfaction variation is determined by the perception dimensions. After this test, the regression analysis was done and the results are shown in Table 4.

Table 4: Regression Analysis for Perception of Service Quality and Satisfaction

Independent Variable	Unstandardized Coefficients		Standardized Coefficients		Sig.
	B	Std. Error	Beta	t	
(Constant)	.253	.061		4.109	.000
Classroom Characteristics	.106	.013	.170	7.982	.000
Teacher Behaviour	.137	.020	.151	6.811	.000
Parents Involvement	.184	.017	.252	10.657	.000
Physical Environment	.420	.022	.462	19.181	.000
Teacher Qualification	.029	.021	.034	1.397	.163
Children's experiences	.027	.016	.040	1.672	.095

a. Dependent Variable: Overall satisfaction

To assess the relative importance of each independent variable in determining the value of the dependent variable, beta coefficients (β) are provided. As indicated in the table, four dimensions of perception were positive and significant ($< .05$) related to the overall parents' satisfaction with the quality of pre-primary education. These were classroom characteristics ($\beta = .17$, $p < .05$), teacher behaviour ($\beta = .15$, $p < .05$), parents' involvement ($\beta = .25$, $p < .05$) and physical environment ($\beta = .46$, $p < .05$). This confirms that the higher the level of these four dimensions of perception, the higher its significance on satisfaction with quality. However, two independent variables teacher qualification ($\beta = .03$, $p > .05$) and children's experiences ($\beta = .04$, $p > .05$) were not significantly related to parents' satisfaction.

In addition, the beta values indicate the contribution of each independent variable to parents' satisfaction with the quality of pre-primary education. In Table 4, the largest beta coefficient was .462, which is physical environment. This implies that the perception of physical environment made the strongest unique contribution to parents' satisfaction with the quality of pre-primary education. The findings of this study are consistent with those of Eshetie, et al. (2016), Hennayake, (2017), İncesu and Aşıkil (2012), Meštrović (2017) and Omar et al. (2009), who found significant relationship between perception of service quality and customer satisfaction. However, the key items and dimensions are different due to differences in the type of organisation studied.

The present study indicates that classroom characteristics have a significant effect on parents' satisfaction level with the quality of pre-primary education. This implies that the more the parents perceived class sizes and teacher – child ratio as favourable, the more they were satisfied with pre-primary education. The study also shows that teacher behaviour was the main factor that influenced parents' satisfaction. This implies that the more the parents perceived teachers' behaviours such as warm, patient and helpful to children as being good, the more they were satisfied with the pre-primary education.

The findings also indicate that parents' involvement has a significant impact on their satisfaction level with the quality of pre-primary education. The more the parents perceive their involvement in their children's education as adequate, the more they are satisfied with pre-primary education. In addition, physical environment seems to have a significant effect on the parents' satisfaction with the quality of pre-primary education. This suggests that the more the parents perceive their children's learning environment as good, the more they are satisfied with pre-primary education. This concurs with Cryer et al. (2002), who observed that parents who are satisfied with their children's education have positive perception of the school environment.

On the other hand, there was no significant contribution of teacher qualification and children's experiences on parents' satisfaction with quality of pre-primary schools. This is probably due to the fact that, in many cases, these two are not directly observable to parents. Parents may also find it difficult to ask teachers about their qualifications. Besides, early childhood staffs do not actively encourage parents to spend much time in their children's classrooms (Cryer et al., 2002). In addition, issues of teacher qualification and activities for children do not seem to bother parents. Possibly, parents believe that teachers have the necessary qualifications and their children are given developmentally appropriate activities. Thus, the issues of teacher qualifications and children's experiences in relation to parents' satisfaction did not emerge.

Conclusions

This paper provides empirical evidence on the issue of service quality and parents' satisfaction with pre-primary education. It has attempted to provide important information for the understanding of perceived service quality in pre-primary education sector in Tanzania and the possible effects of perceived service quality on parents' satisfaction. It has been evident that perceived service quality has significant positive effect on parents' satisfaction. Parents with higher levels of perceptions

on quality of pre-primary education were likely to be more satisfied. In addition, four dimensions in perception of quality, namely classroom characteristics, teacher behaviour, parents' involvement and physical environment are critical factors in explaining parents' satisfaction. Whatever is done to increase these dimensions of perceived service quality will help parents to give a better evaluation of their satisfaction.

Recommendations

It is therefore recommended that pre-primary education institutions should pay more attention to service quality because of its possible effects on parents' satisfaction. To ensure that customer satisfaction level is high, pre-primary education institutions must first of all know the expectations of their customers and how they can meet such expectations. Customer satisfaction helps in promoting customer loyalty and retention. Studies have revealed that it costs more to attract new customer than to retain the existing ones. It is also recommended that pre – primary education management and staff should encourage and welcome suggestions from customers and more programmes should be designed to measure service quality and customer satisfaction.

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