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The evaluation of the quality of educational services – an example of a Leonardo-Vetpro task

Introduction

Although the concept of quality has long been recognized, it has not always been associated with the term itself. The significance of this term was already noticed by Plato who referred to it as “a certain degree of perfection”. The 20th century precursors compared quality to “following the requirements” [Crosby, 1980, p. 24] or to “anything that can be improved” [Imai, 1997, p. 11].

Customer satisfaction seems to be one of the most significant indicators of quality. The level of customer satisfaction is the reflection of the degree which the product or service offered meets the complexity of customer needs. In theory, customers experience quality in two dimensions, which are then translated into the level of their satisfaction [Urbaniak, 2004, p. 28]. The first dimension is the technical quality resulting from the operational processes. It can be evaluated through the material aspects of the service. The technical quality composes everything that the customer gains and receives in the course of the service provided. The other aspect of the service perception is its functional quality, understood in terms of the effect of the relationship between the provider of the service and the customer. Here such aspects and the staff attitude, their competence, kindness and helpfulness are take into consideration.

One of the simplified definitions claims that quality can be referred to only when the customers receive exactly what meets their requirements. Two criteria can be distinguished here: the requirement – what the customer expects, and meeting the requirements – what the customer receives. Not always are these two parameters of the same value. The awareness of customers’ requirements and acting in the way which meets the requirements to the highest degree are the company’s fundamental tasks in order to gain new customers and keep the present ones.

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The method which can determine the degree of meeting the customers’ expectations against their requirements is the Servqual method. Consequently, it has been decided to present research results in the following paper, having applied this method to determine the importance of possible application of modified and aimed at simplicity service quality research methods.

The aim of the research is to evaluate the quality of educational service based on example of a Leonardo-Vetpro task. The research was conducted on the participants of the Leonardo-Vetpro project in November 2014.

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1. Evaluation of service quality

Quality is a subjective matter, each of us can perceive it in a different way. The features that determine quality are often immeasurable, which adds to the subjectivity of the results of evaluation. In order to make quality more objective certain instruments can be used in order to frame certain features [Kolman, 2009, p. 246]. However, it has to be notified that the process is work and time-consuming, and even large organizations that boast about high quality of services offered do not apply this model, opting for the application of parametric scales.

As it has been mentioned earlier, quality can be evaluated from the perspective of perception and expectations. The most common method used to evaluate the level of service quality acknowledging the above mentioned perspectives is the method of quality evaluation advised at the end of the 80s and the beginning of the 90s of 20th century by A. Parasuraman, V. Zeithaml and L. Berry [Parasurman et al., 1985, p. 41]. It is based on the concept of evaluating service quality as the difference between the quality expected and the quality perceived. The concept of the method of quality evaluation which resulted from the works of the authors mentioned above is called Servqual. Depending on the version applied, there are between five and seven gaps in the Servqual method, and it is usually accepted that gap five (which is the difference between the quality expected and the one perceived by the customer) is the function of other gaps and it is sufficient to measure it to evaluate the level of quality of the service offered [Bugdol, 2008, p. 87, Aftyka et al., 2012, pp. 73–94].
Servqual allows researching the quality of the services offered from the perspective of the customer’s decision-making process, and also from the perspective of the service providing organization. The method can be applied to segment customers of the company and to identify its target market, as well as while analyzing the activities inevitable in order to improve the company’s image [Witkowska, 2007, p. 33].

Gap five, which refers to customer satisfaction area and is expressed in the form of the difference between customer expectations about specific features of the service and its perception (experience), is most commonly used to measure service quality. The factors that affect the size of the gap are spoken communication, personal needs, previous experience and the ability to communicate with the service providers [Witkowska, 2007, p. 33].

The expected quality determines what features the service should present. Customer expectations about products and services are connected with the level of services which they acknowledge compliant to their needs. The process of shaping the expectations is a complex one, and is affected by a multitude of factors including price, current customer needs, their previous experience with similar services, service complexity, company’s image or other opportunities to satisfy the need in question [Wolniak, 2010, p. 128]. The quality perceived is the reflection of the level of customer satisfaction at the moment.

In the Servqual method, special research questionnaires are used to evaluate the level of quality. Through these questionnaires customers share information referring to the service, addressing five areas that influence the quality to the greatest extent.

The particular areas determine:
- the material aspect, i.e. the appearance of places, equipment, staff,
- reliability, which is specified as the ability to perform the service effectively and carefully,
- reacting to customers’ expectations – willingness to help customers and offer quick service,
- trust and professionalism based on knowledge, trust and the staff’s politeness,
- empathy, explained as customer care, understanding their needs, and focusing on the individual customer.

The proper Servqual questionnaire consists of 22 statements divided into five areas named earlier. Practically, it is possible to adjust it to
the character or the evaluation research. Most often, the applied questionnaires contain between 20 and 30 questions. Each questionnaire should have two parts, which allow the customer to express their opinion on quality issues (Q). The research addresses customer expectations (E) and perception (P) of the given service and its components. A seven-degree Likert scale is used to characterize the opinion, with 1 for “I definitely disagree”, 4 for “I don’t care” and 7 for “I absolutely agree”. Also in this case, the marking scale can be modified.

Having marked all aspects of the evaluated dimensions, the gap should be decided using the $Q = P - E$ equation. When $P > E$, a surprising quality is noted, referring to exceeding the customers’ expectations. Positive Q result is a reason for company’s satisfaction as its image is positively perceived by the customers. When $P < E$, the expectations are not fulfilled, and then the quality is unsatisfactory. Negative Q result is an indication to undertake certain improvement and preventive activities. The satisfactory quality, compliant with the expectations, is referred to when $P = E$.

In reality, the need to establish the so called tolerance margin accepted for describing the expected quality appears. Then, two categories of quality standards are suggested:

- the desired level of service quality – expectations of what the service provider can and should do,
- the acceptable level of service quality – the minimum level of the service that the customer is willing to accept.

The divergence between these two points determines the tolerance margin, which comprises of various levels of service quality which the purchaser is willing to recognize as satisfactory [Witkowska, 2007, p. 33].

The improvement of quality means diminishing the gap, which is inevitably connected with marginalizing potential causes of the activities that do not comply with the requirements. As it has been mentioned, gap five refers to the divergence between what the customers expect and what they receive. Its appearance is potentially risky for the organization, as it can lead to long-lasting problems which, if uncorrected, can result in creating a negative image of the organization.

The method is not free from shortcomings. The biggest limitation is the fact that it is unified to a significant degree, because of which it cannot be fully applied, considering the significant variety of services. For this
reason, a certain number of modifications of the model have been created in the course of its adaptation by different sectors. Other highlighted drawbacks include selective choice of the service features or the ignorance of the economics issues [Kachniewska, 2002, p. 164]. However, due to general difficulty of evaluation of service provision, the method (with its modifications) is one of few that are practically applied.

2. The quality of educational services

Educational service has its particular characteristics [Lupo, 2013, pp. 7096–7110]. Referring to some definitions, it can be noticed that an educational service is the one in the course of which the seller sells their knowledge or skill [Geryk, 2007, p. 66], and the buyer gains them, or that an educational service is the work which results in developing knowledge, competence or skill by the recipient of the service [Kolman, 2003, p. 248]. According to S. Cichoń, the perception of the level of an educational service is affected by such factors as the environment in which the service is provided (spacious, well equipped classrooms, library, reading rooms, computer labs, etc.), career prospects after graduation, highly qualified teachers and their experience [Cichoń, 2012, p. 11].

Taking these characteristics of educational services, the standard Servqual questionnaire questions have been modified, and the following quality markers have been appointed for evaluation in the course of the research:

1. Area – the material aspect:
   a) the places where classes are hold look properly and are suitable,
   b) the appearance of workers is suitable,
   c) the teaching aids look helpful.

2. Area – reliability:
   a) classes are hold at the arranged time,
   b) help is provided in completing tasks,
   c) classes are carefully prepared (understandable).

3. Area – pace of reaction:
   a) deadlines are known,
   b) the teacher reacts to the feedback from participants.

4. Area – security:
   a) adequate security is provided when completing tasks,
   b) the teacher is polite, the teacher presents the suitable competences.
5. Area – empathy:
   a) individual approach towards participants is noticed,
   b) the classes time is suitable for participants.

   The aim of the research was the evaluation of an educational task which was a part of a EU Leonardo-Vetpro project [http://www.gdynia.pl]. The research was conducted on 5 November 2014 on a group of project participants – nine school teachers from ADI, Associazione Docenti Italiani, an Italian teacher association in Bologna. The subject of the research were organized at the Management at the University of Gdańsk, devoted to sharing knowledge in the latest teaching methods, Flipped Learning and Spaced Learning.

   The research covered the following stages:
   – preparing the questionnaire form;
   – presentation of respondents’ expectations against the above mentioned quality determiners;
   – evaluation of the determiners after classes;
   – result analysis.

   Research results are presented in table 1 and in figure 1.

   Table 1 contains the detailed values of particular gaps. Three out of thirteen values were 0, which means that the customer received exactly what they had expected. Among other values both negative and positive ones can be noticed. The later ones are the positive phenomenon, as they indicate that the QUALITY in the given areas exceeded customer expectations. The areas which received negative values should be the subject of detailed analysis and suitable improvement and preventive activities should be applied.

<table>
<thead>
<tr>
<th>Question no</th>
<th>E</th>
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<th>Question no</th>
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<tbody>
<tr>
<td>1a</td>
<td>5,56</td>
<td>5,00</td>
<td>-0,56</td>
<td>3a</td>
<td>7,00</td>
<td>7,00</td>
<td>0</td>
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<tr>
<td>1b</td>
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<td>0,56</td>
<td>3b</td>
<td>5,33</td>
<td>6,78</td>
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<td>1c</td>
<td>6,89</td>
<td>6,22</td>
<td>-0,67</td>
<td>4a</td>
<td>7,00</td>
<td>7,00</td>
<td>0</td>
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<tr>
<td>2a</td>
<td>6,89</td>
<td>6,00</td>
<td>-0,89</td>
<td>4b</td>
<td>5,44</td>
<td>6,89</td>
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<tr>
<td>2b</td>
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<td>5,67</td>
<td>0</td>
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<td>5b</td>
<td>6,00</td>
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Source: Own elaboration.
As literature of the subject shows, not all areas are equally important for the recipients. Universal values of the importance given by Kachniewska [2002, p. 163] are as follows: the material area 0.11; reliability 30; pace of reaction 0.23; security 0.19 and empathy 0.17. However, taking the character of the service into account, participants were asked to offer their own values of importance for the particular areas. For this purpose, the respondents were to rank each area between 1 and 5, where 1 means the area is of little importance, and 5 means it is very important. Considering the values received (0.16; 0.23; 0.18; 0.22; 0.21 respectively), the levels of satisfaction for particular areas have been decided, as shown in figure 1.

Figure 1. The results of an educational service evaluation, Servqual method, taking into account the importance of particular areas

![Figure 1](image.png)

Source: Own elaboration.

In the research, the participants determined both the expected value and the received one. For the first one, the optimum value, which reflected their expectations, was decided. It can be assumed that each of the features should be a maximum one, i.e. have the highest possible values, in order to satisfy the customer best. For this purpose, as it is assumed by
the simplified version of Servqual method, Servperf method [Cronin et al., 1994, p. 125], all the areas were marked E = 7. General results for particular areas present lower values than in the Servqual method both in the not weighted values and the weighted ones. They appear as follows: the not weighted values –3,11; –3,00; –0,22; –0,22; –2,22 respectively and the weighted ones –0,50; –0,68; –0,04; –0,05; –0,47.

**Conclusion**

The Servqual method is commonly used to reflect the aspects of the quality level. Thanks to the presentation of results, strong and weak points of the evaluated service can easily be determined. In case of the educational example analyzed in this paper, the strong points include the pace of reaction, security and empathy. The other two areas, having received negative marks, are the areas which should be subject to improvement activities. The factors that lowered the material area results included the appearance and adjusting the place where classes are conducted, and the appearance of teaching aids. The low value in the first criterion can indicate the insufficient preparation of the classroom space for the disabled, as well as the general image of the infrastructure. The reservations towards teaching aids, however, are a relevant piece of information for the teacher. A similar situation refers to the other area, the intelligibility of classes. Possibly, both lessons and teaching aids are prepared in a simplified form, so that the participants who are used to a different lesson organization have no problems following and learning in the time provided. The areas that received highest scores covered the teacher, their politeness, competence and attitude towards the learners.

When comparing the weighted (0,33) and not weighted (0,34) results of the Servqual evaluation, it can be noticed that the values referring to the particular area had no significant influence on the general level of the educational service quality.

When comparing the values of Servqual and Servperf methods, lowering of the quality of the service researched can be observed. Literature shows that the Servperf method has to be applied with special care, as it produces different results than its more complex version [Wolniak, 2010, p. 128]. The situation is similar in the case of the service analyzed. The general level of the quality of the educational service according to Servqual is a positive value both for the weighted and non weighted results, yet it is negative for Servperf (–1,75; –60,35 respectively). However, aiming at con-
stant improvement, the organization may reach not for the optimum value, but for the maximum one.

References
The evaluation of the quality of educational services – an example of a Leonardo-Vetpro task (Summary)

The following paper presents the results of research conducted with the application of the Servqual method, referring to the quality of educational services at the example of classes conducted as a part of the Leonardo-Vetpro project in November 2015.

According to the research results, the strengths of the educational service include the areas taken from the Servqual method, such as the fast pace of reaction, empathy and the assurance of receiving the service of the right quality. The other two areas, the material aspect and reliability receive negative results, which means that suitable improvement actions should be introduced.

Keywords
quality, Servqual, educational services