*Gunta Grīnberga-Zālīte, Latvia University of Agriculture, Latvia*
*Evija Liepa, High School EIHSEBA, Latvia*

# POSSIBILITIES FOR TRAINING SERVICES' QUALITY EVALUATION IN RURAL EXTENSION

**Abstract**
In the current economic situation, when the effectiveness of national budget subsidies' use is purposefully activated in Latvia, it is important for educational institutions subordinated to the Ministry of Agriculture of the Republic of Latvia, to search for possibilities, how to make reasonable use of their material and human resources to ensure education services more efficient, accessible and in adequate quality.
Basing on the theoretical models of service quality evaluation and authors' empirical research results, the authors have elaborated a composite model for assurance of customer guided services' quality. The article describes the results of rural extension services' quality evaluation in the regions of Latvia.

*Key words: service evaluation, performance, expectations*

## Introduction

After Latvia accession to the European Union, the activities of Latvia agricultural industry enterprises are implemented according to the European Common Agricultural Policy, which determines the need to receive regular and timely information about the industry topicalities both regarding normative acts and support mechanisms, as well as new farm management methods, which substantially assist in farm modernization according to the European Union (EU) standards.

The Regulation No.1783/2003 of Council of Europe defines that all the EU member states, including Latvia, have to establish their household advisory services' system. This is necessary to help the farmers to meet modern and high quality agricultural standards related to environment and animal protection, plant protection, food harmlessness, animal well-being and good agricultural and environment conditions (Regulation No.1783/2003 of Council of Europe: 2003). According to this Regulation, Latvian Rural Advisory and Training Centre (LRATC) is administrating the rural and agricultural advisory system in Latvia. One of LRATC most important aims is to improve the adult further education system in rural regions becoming the main provider of these services in rural areas of Latvia.

*In the present economic situation, when the effectiveness of the national budget subsidies' use is especially activated in Latvia, is important for LRATC, as an enterprise subordinated to the Ministry of Agriculture of the Republic of Latvia, to search for possibilities how to make reasonable use of its material and human resources to ensure the services more efficient, accessible and in adequate quality* (Grīnberga-Zālīte 2011: 177).

In order to provide such a rural and agricultural extension system, which is customer-guided, it is necessary to develop a model for evaluation and improvement of the current service quality. The model must be easily adaptable and should assist the service provider in

the activities connected with service quality improvement, which systematically furthers the improvement of customer guided training services' quality.

**The objectives of the research** were to:

1. analyze service quality evaluation methods;

2. evaluate the quality of service provision at rural advisory centres;

3. develop a quality evaluation model for assurance of training services' quality at rural advisory centres.

**Research methods applied:** monographic method, method of analysis and synthesis statistical methods (SERVPERF, SERVQUAL surveys), logically constructive method, hierarchical analysis method, Palmer's quadrant analysis method.

**Methodology for Service Quality Evaluation**

"Quality evaluation" is an all-inclusive concept, comprising policy, processes and activities necessary for the maintenance and development of service quality (Buligina 2001: 27).

The theory of service quality provides three main frameworks for service quality evaluation.

- *Performance only evaluation (SERVPERF)*

The simplest approach to evaluation of service quality is simply to ask customers to rate the performance of service. Usually the evaluation range includes reply variants from (1) – strongly disagree, to (7) – strongly agree.

The SERVPERF scale includes only one component – perceived performance. Methodologically this scale should consist of 22 statements, which regard 22 variables forming service quality (see Table 1).

Table 1

| No. | Dimension | Statements |
|-----|-----------|------------|
| 1. | Tangibles (appearance of physical elements) | 1-4 |
| 2. | Reliability (dependability, accurate performance) | 5-9 |
| 3. | Responsiveness (promptness and helpfulness) | 10-13 |
| 4. | Assurance (competence, courtesy, credibility and security) | 14-17 |
| 5. | Empathy (easy access, good communications, and customer understanding) | 18-22 |

*Source: Zeithaml, Parasuraman, Berry, 1988*

A higher perceived performance implies higher service quality.

In equation form, it can be expressed as:

$$SQ_i = \sum_{j=1}^{k} Pij$$

where:

SQi- perceived service quality of individual "i"

k - number of attributes / items

P - perception of individual "i" with respect to performance of a service firm on attribute "j" (Cronin and Taylor 1992: 55-68; Mc Alexander, Kaldenburg 1994: 198-222).

- *Disconfirmation model(SERVQUAL)*

By this approach, a service is deemed to be of high quality when customer's expectations are confirmed by subsequent service delivery. In scientific literature, the SERVQUAL model developed by Berry, Parasuraman and Zeithaml has gained a worldwide recognition. This model enables a service provider to detect, how customers perceive real performance of the service in comparison with their initial expectations.

SERVQUAL questionnaire contains two parts – A part, with 22 statements, detecting customers' expectations and B part with 22 statements detecting customers' perceived quality in reality. Both parts of the questionnaire obtain the arithmetic mean value for each of the dimensions. The difference between both parts of the questionnaire reveal the SERVQUAL evaluation, which diagnoses if customers' expectations are delivered, undelivered or over-delivered.

In equation form, it can be expressed as:

$$SQ_i = \sum_{j=1}^{k}(P_{ij} - E_{ij})$$

where:

SQi – perceived service quality of individual „i";

k – number of service attributes / items;

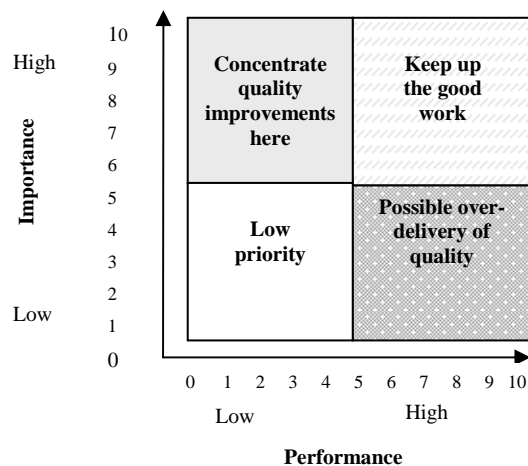P – perception of individual "i" with respect to performance of a service firm attribute "j";

E = service quality expectation for attribute "j" that is the relevant norm for individual "i". (Zeithaml, Parasuraman, Berry, 1988: 12-40).

- *Importance-performance analysis (IPA)*

Importance-performance analysis (IPA) is a simple and easy to use approach that compares the performance of service elements with the importance of each of these elements to the customer.

IPA analysis calculates a performance minus importance score. High performance of a relatively unimportant aspect of the service could indicate that the service provider is "over-delivering" on this aspect of service quality. On the other hand, poor performance of an important item indicates a priority area for service provider's action.

Figure 1. **The grid of a service quality importance and performance evaluation**

The resulting scores for importance and performance can be plotted on a grid (see Figure 1), with each cell in the grid representing a different course of service provider's action. IPA allows customers' rankings of a service importance and performance of service to be plotted on a grid, from which it is easy to identify service provider's priorities. Top left-hand quadrant shows priority areas for improvement, while in the bottom-right quadrant the service provider may be over-delivering and could even save costs by reducing levels of quality.

**Evaluation Results of LRATC Training Services' Performance in Latvia**

For the approbation of the first quality evaluation model SERVPERF the author used B part of the questionnaire. In this questionnaire, the respondents (the customers of LRATC training courses) had to express their opinion of the quality of training services assigning appropriate evaluation of the 7-grade scale (1 – in no case agree;

7– fully agree). The respondents' assigned average values in the five service quality dimensions are aggregated in Table 2.

The approbation results of SERVQUAL indicate that according to this method, the lowest evaluation was assigned to the Dimension 5, i.e., empathy (5,044), but the highest (6,233) to the Dimension 2, i.e., reliability. The evaluations of the rest three dimensions – Dimension 1 (tangibles), Dimension 3 (responsiveness) and Dimension 4 (assurance) have been evaluated by experts as comparatively equal (accordingly 5,208; 5,958; 5,486), which at the same time is not very distant form the lowest evaluation – the one assigned to empathy dimension (5.044). On the one hand, the service provider has not reached the maximal grade (7.0) in any of the dimensions, but, on the other hand, the average evaluations (5.208; 6.233; 5.958; 5.486 un 5.044) are above the average, which according to this method should be regarded

positively.Yet the authors admits that SERVPERF model provides very approximate evaluations of LRATC quality evaluations, which could be regarded by the management as the case might be – both good and insufficient or even simpler – as optimal. Therefore, the author concludes that the obtained research results provide insufficient understanding of activities to be implemented to improve the service quality.

Table 2

**SERVPERF survey results of LRATC training groups**

| Dimen-sion | Statements | Average value | Standard deviation | Probability (%) | Average weight |
|---|---|---|---|---|---|
| **Tangibles** | Training classes and facilities (e.g. furniture, interior, plants, decorations etc.)are modern and well equipment | 4.17 | 1.07 | 25.61 | |
| | Customers' work places are ergonomic (e.g. comfortable chairs, adjusted lights etc. ) | 4.00 | 0.94 | 23.57 | |
| | Course customers are provided with the training course handouts and study materials | 6.72 | 0.73 | 10.87 | |
| | The content of the handouts and study materials is easily understandable | 5.94 | 0.70 | 11.86 | **5.208** |
| **Reliability** | Training courses take place precisely in the scheduled time. | 5.33 | 1.05 | 19.76 | |
| | The lecturer timely provides customers with the information about the course procedure | 6.39 | 0.83 | 12.93 | |
| | The lecturer is a qualified specialist of the appropriate industry | 6.67 | 0.58 | 8.66 | |
| | Theoretical knowledge mastered during the course will be useful in practice | 6.22 | 0.79 | 12.63 | |
| | After the course completion customers are timely provided with the document certifying the course attendance | 6.56 | 0.83 | 12.68 | **6.233** |

Table 2 continued

| | | | | | |
|---|---|---|---|---|---|
| **Responsiveness** | LRATC employees regularly inform customers (e.g. about the alteration of the training course schedule). | 5.39 | 1.30 | 24.07 | |
| | The course lecturer is flexible to the customers' wishes | 5.83 | 0.69 | 11.78 | |
| | Topicality of the courses and seminars' content (the obtained knowledge after the course and seminar completion will not be outdated, they will be useful). | 6.28 | 0.65 | 10.36 | |
| | In case of need the lecturer is ready to provide customers with individual consultations. | 6.33 | 0.75 | 11.77 | **5.958** |
| **Assurance** | Lecturer's behaviour, speech and appearance convinces customers of the lecturer's professionalism | 6.61 | 0.49 | 7.37 | |
| | LRATC work environment convinces customers of LRATC professionalism | 5.17 | 1.07 | 20.66 | |
| | LRATC staff has a kind attitude to any customer | 5.22 | 1.44 | 27.50 | |
| | In case of uncertainty customers can receive the necessary information at any employee. | 4.94 | 1.27 | 25.65 | **85.46** |
| **Empathy** | Any customer of a training course receives individual attention | 4.22 | 1.03 | 24.4 | |
| | The timing of the training course is comfortable for all customers. | 5.06 | 0.97 | 19.19 | |
| | Place location of the training course classes is convenient for all customers of the group. | 4.83 | 0.83 | 17.24 | |
| | Lecturer is interested in satisfying customers' needs. | 5.89 | 0.66 | 11.16 | |
| | Lecturer is ready to satisfy specific needs of the customers. | 5.22 | 0.97 | 18.67 | **5.044** |

*Source: Authors' calculations according to the survey data, 2009-2010*

## Evaluation Results of LRATC Customers' Expectations of Training Services and Compliance of the Service Expectations with the Real Service

The next research stage was devoted to the service quality evaluation using SERVQUAL model (disconfirmation model).

According to SERVQUAL methodology, before the service is received, it is necessary to survey customers using A part of the questionnaire. In this part, the customers are asked to express their opinion regarding the expected quality of the service by assigning appropriate evaluation for each element of the quality dimensions in 7-grade scale (1 – in no case agree; 7 – fully agree).

After the customer has received the service, B part of the questionnaire is used (it matches with the SERVPERF questionnaire). In this questionnaire identically to SERVPERF customers evaluate the performance of the service. The score difference of both questionnaires parts (B-A) reveals SERVQUAL evaluation indicating, in which criteria performance the customers' expectations were met, over delivered or undelivered.

After the calculation of difference scores between the 22 statements values, the author obtained an overview of the real performance of each criterion (see Table 3).

SERVQUAL model precisely indicated those criteria of LRATC service quality, which had lower performance level, than customers had expected. Most of all in a particular

situation it regards training classrooms, comfort, usefulness of information received during the training, regular provision of information about the topicalities, kind attitude of the service provider's staff, the willingness of the service provider to help customers to clear up uncertainties and advantageous place location of the training courses.

Table 3

**Comparison of LRATC training services' expected quality with real performance quality**

| Dimension | Statements | Average expectations (A) | Average performance (B) | B-A |
|---|---|---|---|---|
| Tangibles | Training classes and facilities (e.g. furniture, interior, plants, decorations etc.)are modern and well equipment | 5.117 | 4.167 | *-0.950* |
| | Customers' work places are ergonomic (e.g. comfortable chairs, adjusted lights etc. ) | 5.245 | 4.000 | *-1.245* |
| | Course customers are provided with the training course handouts and study materials | 6.468 | 6.722 | **0.254** |
| | The content of the handouts and study materials is easily understandable | 6.021 | 5.944 | *-0.077* |
| Reliability | Training courses take place precisely in the scheduled time. | 4.596 | 5.333 | **0.737** |
| | The lecturer timely provides customers with the information about the course procedure | 6.160 | 6.389 | **0.229** |
| | The lecturer is a qualified specialist of the appropriate industry | 6.447 | 6.667 | **0.220** |
| | Theoretical knowledge mastered during the course will be useful in practice | 6.511 | 6.222 | *-0.289* |
| | After the course completion customers are timely provided with the document certifying the course attendance | 5.617 | 6.556 | **0.939** |
| Responsiveness | LRATC employees regularly inform customers (e.g. about the alteration of the training course schedule). | 6.160 | 5.389 | *-0.771* |
| | The course lecturer is flexible to the customers' wishes | 5.362 | 5.833 | **0.471** |
| | Topicality of the courses' and seminars' content (the obtained knowledge after the course and seminar completion will not be outdated, they will be useful). | 5.989 | 6.278 | **0.289** |
| | In case of need the lecturer is ready to provide customers with individual consultations. | 5.947 | 6.333 | **0.386** |

Table 3 continued

| | | | | |
|---|---|---|---|---|
| **Assurance** | Lecturer's behaviour, speech and appearance convinces customers of the lecturer's professionalism | 5.723 | 6.611 | **0.888** |
| | LRATC work environment convinces customers of LRATC professionalism | 5.191 | 5.167 | *-0.024* |
| | LRATC staff has a kind attitude to any customer | 5.830 | 5.222 | *-0.608* |
| | In case of uncertainty customers can receive the necessary information at any employee. | 5.479 | 4.944 | *-0.535* |
| **Empathy** | Any customer of a training course receives individual attention | 4.628 | 4.222 | *-0.406* |
| | The timing of the training course is comfortable for all customers. | 5.213 | 5.056 | *-0.157* |
| | Place location of the training course classes is convenient for all customers of the group. | 5.234 | 4.833 | *-0.401* |
| | Lecturer is interested in satisfying customers' needs. | 5.489 | 5.889 | **0.400** |
| | Lecturer is ready to satisfy specific needs of the customers. | 4.862 | 5.222 | **0.360** |

*Source: Authors' calculations according to the survey data, 2009-2010*

According to the methodology of SERVQUAL evaluation, it means that these are problem areas of the service provider.

SERVQUAL model precisely indicated those criteria of LRATC service quality, which had lower performance level, than customers had expected. Most of all in a particular situation it regards training classrooms, comfort, usefulness of information received during the training, regular provision of information about the topicalities, kind attitude of the service provider's staff, the willingness of the service provider to help customers to clear up uncertainties and advantageous place location of the training courses. According to the methodology of SERVQUAL evaluation, it means that these are problem areas of the service provider.

Moreover, the authors ascertained that a remarkable advantage of the SERVPERF model is its ability to reflect the areas, where the service provider over delivers its services, i.e., is doing its utmost to meet the needs of the customers, although in reality the customers never expect that their needs would be met completely, or which even turns out to be insignificant to them. According to the research results, the majority of LRATC service quality real performance criterions exceed the expected ones: assurance of the document certifying the course attendance, willingness of the staff to satisfy customers' needs and readiness of the lecturers to satisfy specific needs of the customers.

However, in scope of SERVQUAL research, the author found out that the largest deviation, i.e., -1.2. grades was yet detected in the direction of undelivered expectations (the maximal deviation in the direction of over delivered or exceeded expectations is 0.9. grades). Consequently, the priority of the service provider is to find out why exactly in this service

quality dimension (i.e., tangibles) customers' expectations have been higher than real performance of the service.

## Importance-Performance Evaluation Results of LRATC Training Services' Quality Dimensions

In order to evaluate the suitability of importance-performance analysis (IPA) for evaluation of rural advisory and training services according to Palmer's matrix analysis method (Palmer 2007: 276), first it was necessary to detect the importance of the quality 22 criteria.

For accomplishing this task, the author used the A part questionnaire of the SERVQUAL survey, in which each respondent had to express his/her opinion regarding the expected quality of the service, assigning evaluation for each criterion of the quality dimensions in 7 grade scale (1 – unimportant; 7 – very important).

To detect customers' priorities regarding the five quality dimensions, the author used a hierarchical analysis method for decision-making.

Next task was to detect the extent, to which each of the five criteria is more important or accordingly less important than the other four, using a specially elaborated matrix for the comparison of criteria groups. The author's calculations gave evidence that from the five quality dimensions, the Dimensions 1-4 are equally important, but the Dimension 5 (empathy) is less important, as its importance was only 7.7% of 100%.

As the authors have already evaluated the average values of the five service quality dimensions using SERVPERF method (1. – 5.208; 2. – 6.233; 3. -5.958; 4. – 5.486 un 5. – 5.044), and detected the average importance values of the service criteria in customers' opinion (1. – 5.513; 2. – 5.888; 3. – 5.777; 4. – 5.458; 5. – 4.726), then it was possible to plot them on a grid according to Palmer's IPA methodology.

In the IPA matrix, all the five quality dimensions have concentrated in the top-right quadrant, which means that the five quality importance values comply with LRATC service performance evaluations. Consequently, the quality level should be kept up on the same level as before.

After detailed analysis of each value concentrated in this quadrant (see Figure 2), the author found out the same outlook, as in average values of the dimensions – the general conclusion is that a close match of importance and performance values exists.
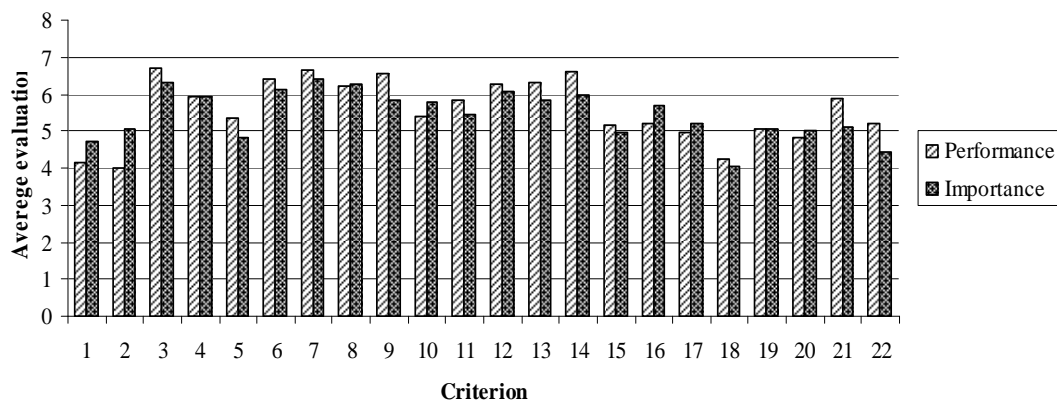
Figure 2. **Importance-performance analysis matrix of the 22 criteria forming the five quality dimensions of LRATC training service**

*Source: authors' calculations of the survey data2009-2010 according to Palmer's methodology*

Considering the character of a training service, which has a more complicated essence than a tangible commodity, as in service there are integrated both several tangibles and intangible characters, which are equally important to the customer, the author concludes that importance-performance matrix in a particular situation does not provide sufficiently clear understanding of gaps in the present quality. Obviously, this method enables to detect them only in cases if quality is seriously low (extensive quality improvement is necessary) or exceedingly high, (the present quality level is unsubstantiated high, which remarkably exceeds customers' expectations).

### Customer-Guided Training Services' Quality Assurance Model

For the customer-guided training services' quality assurance at rural centres the author proposes to use a composite model (see Figure 3), which combines both evaluation of customers' expectations regarding the service, evaluation of importance of the service quality criteria and finally evaluation of the real service performance after the receiving of a service (Grīnberga-Zālīte 2011: 177). The authors according, to SERVQUAL model methodology, personally surveyed the customers shortly before the beginning of the course in the study room. It took approximately 5-7 minutes. Such a survey in presence ensures 100% filling in questionnaires and a possibility to answer questions (if such occur) about the questionnaires' content and marking of statements. In the authors' opinion, also the possibility to have neutral persons as a survey conductors has been successful.
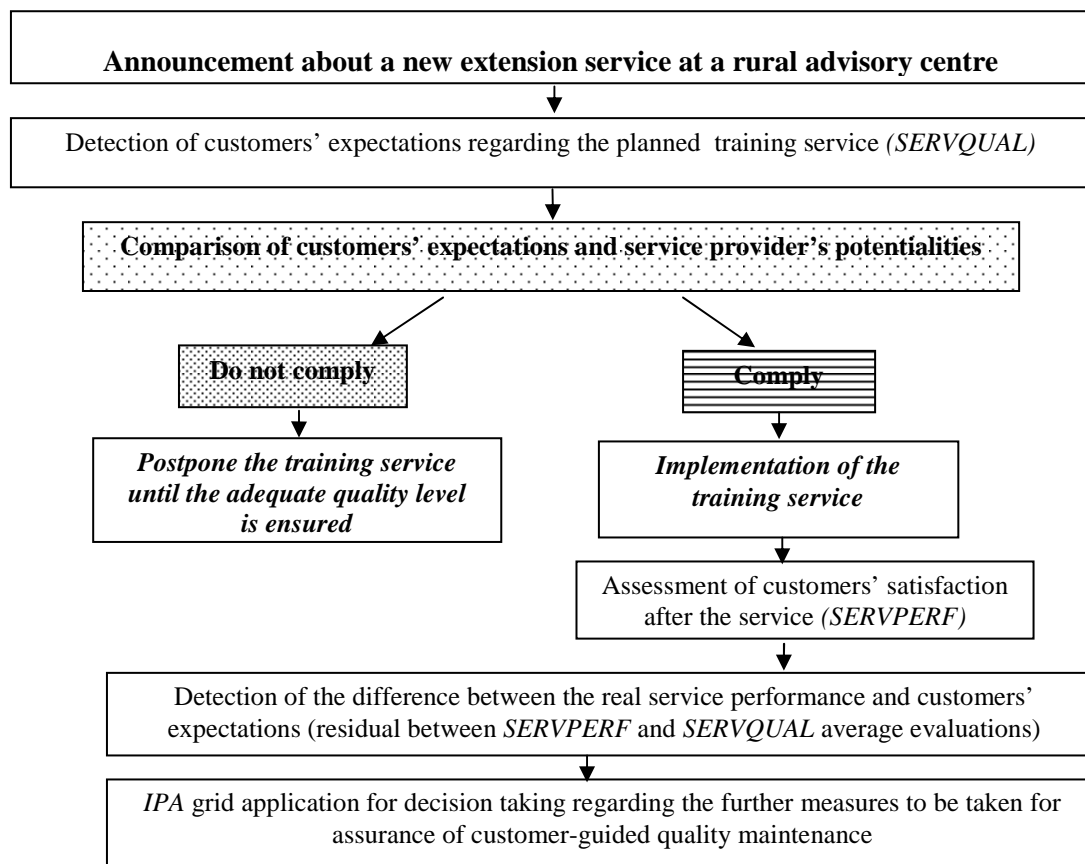
Figure 3. **Customer-guided training services' quality assurance model**
*Source: Grīnberga-Zālīte 2011: 177*

Firstly, if the survey is organized by a well known LRATC employee the participants of the training course not always feel comfortable to answer fairly, as they expect to be ignored next time when they apply for a free of charge training course due to their negative evaluation of the course quality. Secondly, as it was admitted by the head of LRATC Further Education Department, that lecturers of the training course or persons responsible for the course organization are the persons who are directly interested in having good evaluation of their work, so such approach of having an independent person eliminates data falsification due to possible dishonesty.

**Conclusions**

1. SERVPERF model provides over approximate evaluations of LRATC training services' quality evaluations, which could be regarded by the management as the case might be – as good and insufficient at the same time, or even simpler – as optimal. Therefore, the obtained research results provide insufficient understanding of activities to be implemented to improve the service quality.

2. SERVQUAL model precisely indicates those criteria of LRATC service quality, which had lower performance level than customers had expected. In a particular situation, it regards training classrooms, comfort, usefulness of information received during the training, regular provision of information about the topicalities, kind attitude of the service provider's staff, and the willingness of the service provider to help customers to clear up uncertainties, as well as advantageous place location of the training courses. According to the methodology of SERVQUAL evaluation, it means that these are problem areas of the service provider.

3. In scope of the approbation of the service quality importance-performance evaluation model, the author plotted the research results in matrix according to Palmer's methodology and detected that the five quality dimensions have concentrated in the top-right quadrant, which means that the five quality importance values comply with LRATC service performance evaluations. Consequently, the quality level is adequate for the particular conditions. The author considers that evaluation of LRATC quality using only the importance-performance analysis model does not provide sufficiently clear understanding of the gaps in the present quality. Obviously, this method enables to detect them only in cases if the gaps are very distinct.

4. The author's developed model of customer-guided service quality improvement is universal enough to be used with little adjustments in the questionnaires also for the quality evaluation of other training services. The model helps to obtain an overview of the provided quality condition of the provided service and further measures to be taken for the customer-guided quality maintenance, which systematically favours improvement of customer-guided training services' quality.

***Bibliography***
1. Cronin J.J., Taylor S.A. (1992) Measuring Service Quality: A Reexamination and Extension. Journal of Marketing, Vol.56, No.3, pp.55–68.
2. Grīnberga-Zālīte G. (2011) PhD thesis „Assurance of Customer-Guided Training Services' Quality at Rural Advisory Centres". Jelgava: Latvia University of Agriculture, p. 177.
3. LRATC website www.llkc.lv, "About us", "Services", "Annual Report 2007", Available: http://www.llkc.lv/upload_file/400319/gadaZinojums_2007_2a.pdf, [retrieved 21.01.11.]
4. McAlexander J.H., Kaldenburg D.O. (1994) Service Quality Measurement. Journal of Health Care Marketing, Vol.14, No.3, p. 34. McDonald M. (2004) Key Makreting Skills. 2nd edition. London: Peter Cheverton, pp.198-222.
5. Palmer A. (2007) Principles of Services Marketing. Mc.Graw Hill Higher Education. 5th edition. p.276.
6. Regulation No.1783/2003 of Council of Europe.

7. Tālākizglītības kvalitātes vērtēšanas rokasgrāmata (2001) Sastādīja I.Buligina. Rīga: Izglītības un Zinātnes Ministrija, 27.lpp.
8. Zeithaml V., Parasuraman A., Berry L. (1988) SERVQUAL: A Multiple-Item Scale for Measuring Customer Perceptions of Service Quality. Journal of Retailing, Spring, pp.12-40.