FACTORS DESCRIBING STUDENTS´ PERCEPTION ON EDUCATION QUALITY STANDARDS

Lucie Vnoučková[1]✉, Hana Urbancová[2], Helena Smolová[3]

✉[1]University of Economics and Management Prague, Nárožní 2600/9a, 158 00, Praha 5, Czech Republic, lucie.vnouckova@vsem.cz
[2]Department of Management, Faculty of Economics and Management, Czech University of Life Sciences Prague, Czech Republic
[3]Department of Marketing, University of Economics and Management, Czech Republic

Highlights

- *Identification of key evaluation factors for ensuring continuity of the assessment process*
- *Identified factors describe student behaviour when assessing each subject*
- *Evaluation of subjects, teachers, materials and teaching techniques and technologies is presented*

Abstract

Education quality assurance is the necessity for today's competitive environment in university education. Quality assurance standards and strategies are being used in most of universities and higher education institutions. But the perception of quality standards is being usually seen from the perspective of a university management. This study aims to analyze and present perceptions of students towards a measurement of education quality standards and to identify significant groups of students according to their preferences in education quality. Students' questionnaires and focus groups collected the data. Two dimensional and multi-dimensional statistical methods were used to evaluate the results. The outputs show five groups of students based on their perception of the education quality. Examination of students' interest in specific areas, subjects and courses leads to identification of factors which affect their preferences in education. The paper found five significant groups of perceived quality by students. These are Quality receptionists, Business oriented, Expert innovators, Distance learners and Arrangement oriented. Limit of the study is a narrow focus on one private university. This study may encourage other papers to develop and test further the impact of education quality on students' preferences for measurable improvements. The paper is an extension of the conference paper presented on ERIE conference 2017.

Article type

Full research paper

Article history

Received: March 27, 2017
Received in revised form: October 3, 2017
Accepted: October 12, 2017
Available on-line: December 20, 2017

Keywords

Quality, assurance, university, evaluation, education, management

Vnoučková L., Urbancová H., Smolová H. (2017) "Factors Describing Students' Perception on Education Quality Standards", *Journal on Efficiency and Responsibility in Education and Science, Vol. 10, No. 4*, pp. 109-115, online ISSN 1803-1617, printed ISSN 2336-2375, doi: 10.7160/eriesj.2017.100403.

Introduction

It is generally true that the higher education level helps to the development of any society in all countries of the world. This sector is currently, when there is laid emphasis on increasing the quality of the educational process, increasing the employability of graduates, improving interdisciplinarity of individual branches, etc. The sector is more monitored by representatives of the Ministry of Education, Youth and Sports at the national level and also by representatives of organizations and other institutions at the national as well as European level. Primarily, the reason is that the higher education helps to develop the given economy and forms the essential basis for sustainable growth.

The aim of the paper is to analyze and present perceptions of students towards a measurement of education quality standards and to identify significant factors of students' preferences in education quality. The indicators used *are based on students' and academicians' satisfaction with the educational process.*

The paper contains of six sections. The first one is "Introduction", the second one is "Theoretical Background", followed by a presentation of the methodological approach (in the chapter "Materials and Methods"). Subsequently, there is an analysis (the "Results" chapter), and a discussion section (the "Discussion" chapter) that contains recommendations. Finally, authors conclude the paper and summarize the contributions and limitations of the paper (the "Conclusion" chapter) and describe future research in this area.

The paper is an extension of the conference paper presented on ERIE conference 2017 in Prague, Czech University of Life Sciences (Vnoučková, Urbancová, and Smolová, 2017). The paper was extended in the results and discussion in parts focused on the evaluation of statements of respondents related to the quality of education provided in selected statements. The contribution of the article lies the emphasis on the educational process quality in the current knowledge economy described by increasing competition between universities. Accordingly, the discussion part was added and the conclusion was extended in compliance with the presented results.

Theoretical Background

The general goal of the higher education at the national level, including the Czech Republic, is, first of all, to achieve complex knowledge and skills within their branches. We can, however, state that this goal is not always being succeeded. Based on the statement of the Ministry of Education, Youth and Sports (2015) within the "Framework of the Higher Education Development until the year 2020", we can summarize that in 2014, the Czech higher education was at the end of the rapid quantitative expansion, which is positive because since the year 1989, the number of students increased almost fourfold and there significantly increased accessibility for almost all high school graduates with graduation exams who were interested in further studies, but not all of them have been qualified and have competencies to study a university and graduate successfully. Thus, quantity over quality of education was preferred.

The Ministry of Education, Youth and Sports (2015) states that the character of universities has significantly changed and adapted to unusual quantities of students with more diverse previous education, profile and background compared to the era ten years ago. But the transformation is not completed yet, as there is not enough necessary formation and diversification of individual branches. Also, necessary infrastructure is not

created. Furthermore, colleges and universities still face up the big problem with staffing. Considering the preference of the educational quality within the higher education, the emphasis on the specific competencies development (set for each branch), which are exercisable in practice, the increase of co-operation with practice and others, based on the research by Cejpek et al. (2014), 5 basic spheres were determined that help to improve the quality of teaching:

- Sophisticated structure of studying programs, when using outcomes from learning helps to improve the continuity of individual subjects within the curriculum and reduces duplication between them. Benyon (1981), Williams and Howley (1989) or Xu, Duan and Chen (2002) emphasize the importance of the curriculum continuity (even through the individual levels of education) in their studies. Already from a primary school the continuity and good and logical connection between curriculum and study plans is one of the monitored key attributes of education (Sanders et al., 2005; Shields, 2009).
- The pedagogic self-reflection of teachers and understanding how students study open new possibilities to teachers to think about teaching, about active involvement of students and about what and how they learn. Jones (2016), in his research, emphasizes the role of person-level qualities or personality in the educational process quality, concretely the role of perfectionism during teaching by each teacher, which was emphasized previously in the researches by Clark, Lelchook, and Taylor (2010), laying emphasis on three dimensions of perfectionism (high standards, discrepancy and order) at work. In their researches, O´Connor and O´Hagan (2016) emphasize the importance of the regular evaluation of academic staff. Although, according to Weisberg et al. (2009), the teacher's effectiveness is specified by many expert studies as the factor most significantly influencing results and progress of students. But schools rarely systematically measure and evaluate the attribute and rarely draw conclusions from it.
- Increased motivation of students, while especially an active involvement of students into education and providing a formative feedback has a positive influence on the students´ motivation. Researches by Tsinidou, Gerogiannis, and Fitsilis (2010) emphasize the importance of opinions and feedback in the perception of the quality determinants primarily from the point of view of students against the self-assessment on the part of faculties / universities / colleges. These point out that details from students contribute to the educational services quality. It is necessary to pay attention primarily to this group of respondents in the higher education and to reflect the obtained results into the strategic decision-making process.
- Verifying the reality of set study goals, when most often it turned out that subjects are excessive as to their content or time, because many declared goals can´t be realistically taught and/or verified.
- Improvement of the education quality, because as a result there must be really improved the level of obtained knowledge and skills of students within the educational process, and thus also improvement of the quality and competitiveness of graduates in the labor market.

Based on the above mentioned information, we can consider the goals of effective teaching related to the tertiary level of education, which were identified more than thirty years ago by James Clark, to be still valid. Clark (1995) has divided these goals into two groups:

- Cognitive goals – knowledge, organization of instruction, clarity of expression, quality of presentation.
- Affective goals – to stimulate students´ interest, their participation and openness to new ideas, interpersonal relations, communications and fairness.

The realized researches shows that at the present time of the high competition in the area of the higher education, it is necessary to lay emphasis on the development of academic advising, which is, according to the researches by He and Hutson (2016), one of the key functions in higher education nowadays. This leads to linking the theory and practice, which is very appreciated by students according to domestic as well as foreign researches.

The mentioned areas are usually monitored, evaluated and adjusted on the basis of students´ assessment, which is considered to be an essential tool universities use to assess their teaching skills (Simpson and Siguaw, 2000). In this respect, we must mention one basic fact – it is necessary to consider that the validity of students´ evaluation of teaching and related processes can be influenced by the situation when respondents (= students) do not take the evaluation and its results really seriously (Gaillard, Mitchell, and Kavota, 2006).

Materials and Methods

This paper was prepared using a method of analyzing secondary and primary resources, knowledge synthesis, induction, deduction and comparison. Secondary resources, scientific monographs and articles dealing with the topic were analyzed. Websites of institutions that actively deal with the issue were also analyzed. In order to cover all relevant studies, a variety of keywords for quality, education, learning, student and similar other ones were used. The research is descriptive and empirical in nature because the primary data were collected using the survey method through the fact finding techniques such as questionnaires and interviews.

Data Sample

The second part of this paper analyses and evaluates the results of the primary survey. The data for the evaluation of current education and learning in a Czech private university were collected in a primary quantitative survey by means of questionnaire investigation. The survey was carried out among students and academic staff. The student dataset comprised in total 2,265 students and 168 teachers. The evaluated subjects contained the areas of Business Economy, Economics, Management, Marketing and Human Resource Management. Only students who passed the entire education and evaluation process (i.e. attended all lessons, seminars and lectures) of the mentioned selected areas were part of the survey. The data were collected using CAPI (computer assisted paper interviewing) and subsequently processed in Microsoft Excel; incomplete questionnaires were deleted. The final data source was analysed according to identification questions, and descriptive statistic was used.

Only the students who regularly and periodically attended classes were part of the survey (participation in classes is voluntary for students, not all of students attended classes or participated in the research). The results thus do not evaluate students who did not pass the entire process of education and tuition.

The respondents were structured as follows out of the valid data: Students' gender: 841 (43.01%) male, 1,414 (56.99%) female (10 students did not marked their gender); students' professional experience: 1067 (47.54%) work in the area

of study, 1,177 (52.46%) do not work (21 students did not answer); students' future intention to work in the area of study: 1,213 (53.77%) plan to work in the area of studied subjects, 338 (14.98%) do not plan to work in the area of studied subjects and the remaining ones (31.13%) do not know.

Research Design

The data collection instrument included questions to measure education activities of the university in focus. The questions were designed based on theories (see the theoretical background) and similar research studies.

Each student filled a questionnaire for each subject which he/she participated in. Students evaluated all the compulsory subjects and all optional subjects they had attended. Optional subjects are part of the studies only for full-time students. Part-time students attended and evaluated only compulsory subjects. Students always filled the questionnaire in the last lecture of each subject. The questionnaire addressed three main areas (other than identification questions). Those were lessons and their content, the course/subject and its structure and usefulness, and the teacher's quality. Other than the quality of education, the questionnaires also measured study materials, texts and presentations, the teacher's personality and abilities, the technology used in the educational process, connection with practice, technical and organizational facilities and equipment.

All the primary data were evaluated using descriptive statistics. In addition, the dependence among qualitative characteristics was tested to see whether there are relations between searched attributes, to verify the data obtained and their further analyses (Hendl, 2006). Multivariate statistical methods and analyses were used to lower the number of possible single approaches and practices. Factor analysis was used to analyse the data.

Within the multivariate statistical methods, the factor analysis was used to establish factors that summarise behaviour of respondents (students) into meaningful groups.

The process of calculation and interpretation of results was used according to Hebák, Malá, and Hustopecký (2006). The analysis was used due to the aim to classify the analysed competencies, when there was a number of variants of answers per each question. Newly designed factors should simplify the total results of the questioning. Factors explain variability and dependence of considered variables. The factor analysis is used to create factors which summarize evaluation of the educational process into coherent groups. The factor analysis was used based on statistically significant correlations. The basic conditions of attributes to enter the analysis were fulfilled according to Hendl (2006). The analysis was used as confirmatory statistical method, when based on the correlation analysis the preposition to create fractional areas where perception of students is interconnected was designed. Theoretical factors were created and later tested by factor analysis. The factors were created with regard to their merits in terms of theory and practice in the educational process. The factor analysis is more heuristic method which requires deep understanding of examined issue and also knowledge and experiences with the method. Therefore, the method is sometimes rejected by statistics as less exact, inconclusive and subjective. On the other hand, many researchers in social sciences (i.e. sociologists) use factor analysis quite often and trust it (Palát, 2012). Also in the area of learning and development research, the method is used quite often and favoured by researchers (Anderson, 2009). It is a subjective method and the results depend on the researcher. But the whole area of learning and education may be classified as subjective. It is necessary, of course, to pay attention to the basic data which shows the original objective results. This study was created in this manner. The resultant data from the analysis were compared to the reactions of respondents to minimize distortion. These perquisites preceded the design and calculation of results of this study. The results respect above mentioned facts. Factors are constructed based on their content and relations between similar students' responses and their simultaneous use.

Before using the factor analysis a correlation matrix was created and then it was further analysed for suitability of further calculations using multivariate methods. At first the correlation analysis, then the principal components analysis and subsequently the factor analysis using Varimax rotation were used for calculations. The level of correlation coefficients were sufficient according to Anderson (2009) and Hendl (2006). Moreover, 86.93% of correlations in the correlation table were statistically significant. The KMO (Kaiser-Meyer-Olkin test) value reached over 0.8 which is considered as meritorious and thus adequate for factor analysis.

The number of monitored variables (factors) was reduced using the Varimax method. For the selection of substantial factors the Kaiser-Guttman rule was applied (i.e. substantial factors having a value within the range higher than 1) and subsequently Sutin test was applied. The correlation coefficients are in the interval from <-1;1>. If the correlation coefficient is positive, it is a direct proportion (negative – indirect proportion). For the evaluation, the value of variable correlation higher than 0.3 (moderate correlation) according to Anderson (2009) was used. Statistically significant results were presented at the significance level 0.05. To evaluate the results, IBM SPSS statistics was used.

The factor analysis was conducted to find groups of responses of students regarding their perception of educational process. The goal was to find groups of variables with significant appearance at the same time to reveal main orientation of groups of students. The results may help with set up of personalized study program focused on the key expectations of students and stakeholders to maintain student learning outcomes.

According to Anderson (2009), the factor analysis was used only as verification. The emphasis on the factor analysis results is laid on the meaningfulness and substantiation of factors in terms of theory and practice in human resource management. In case of human resources research, this method is often used by researchers and provable in work with people (Anderson, 2009). Just because of the fact that factor analysis is often used in human resource research, it was also used to prepare this article. The aforementioned facts were respected in its application and it has been interpreted knowing the theory of issues (Urbancová, Šnýdrová, 2017; Urbancová et al., 2016). As mentioned above, the answers were analysed, the main directions and areas discussed and highlighted by respondents were summarised to form factors of main topics drawn from the respondent´s perceptions.

As statistics or statistical software may group variables which seem similar, there still may be mistakes in groupings. Therefore, all results were manually controlled to make sure the internal consistence of all factors is high and all variables which form each factor are valid and coherent. These prerequisites preceded the design and calculation of the study results. The results respect the above mentioned facts to design and interpret coherent factors which may help with further evaluation and assessment of analysis of students´ perceptions and behaviour.

During the research the procedures followed were in accordance with ethical standards and Czech law relating to the use of sensitive information.

Results

The chapter presents results of a study focusing on the identification of variants of perception of a quality education by students. Firstly, overall perception of the education al process by students is presented. Secondly, the factor analysis is used to group similar statements of students to form valid factors describing ways of students´ perception of the educational process. The chapter ends with a discussion of results and a comparison with other studies that have been undertaken.

Firstly, students' evaluation of the educational process is presented. Bellow in the Figure 1 the results show average students´ perception of different attributes of their perception of the educational process. Most of the attributes are evaluated positively (students evaluated each criterion on the scale where 1 is the best and 5 is the worst; the Figure only shows values up to 2.5 because no higher values were found).

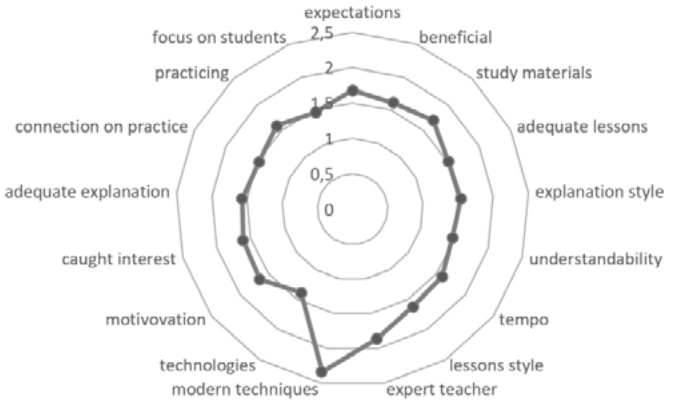

Figure 1: Evaluation of the educational process by students (source: Authors´ processing)

As we can see in the Figure 1, all analyzed statements are fluctuating around the level 1.5, the only difference is the use of the modern techniques. The modern teaching techniques received poorer evaluation than other searched statements (the average is 2.355, modus 1 and median 2). Other values were in the interval <1.386; 2.342>. Standard deviations do no exceed 1.172. This greatest difference has appeared in the variable related to the modern teaching techniques used by a teacher. Students' responses varied most in this criterion. That means that some of the teachers are evaluated as fully using modern teaching techniques, but there are some who use only standard and classical teaching techniques. On the other hand, the overall results do not show serious weaknesses. Students evaluated all areas of the educational process at a very good level of satisfaction. This indicates mostly agreement and conformity of responses and also perception of the educational process by the interviewed students. As only students who participated in entire lessons and courses were interviewed, one may conclude that the results should reflect the real process of the education, lessons and seminars.

Further analysis of usage of modern teaching techniques revealed that it is not dependent on practicing; the association analysis shows there is no relation. Attention of students can be attracted by any teaching techniques, but students are attracted by discussion and practical application of studied theory.

Factor analysis was used to further analyze the results. First a correlation analysis was conducted. Given that a sufficient quantity and quality of correlation coefficients was found in the correlation table, a subsequent analysis was conducted: i.e. factor analysis. Correlation matrix was not added in the text, as it has more than 700 cells and it could not fit in the paper body. The level of correlation coefficients were sufficient according to Anderson (2009) and Hendl (2006). Moreover, 86.93% of correlations in the correlation table were statistically significant. The KMO (Kaiser-Meyer-Olkin test) value reached over 0.8 which is considered as meritorious and thus adequate for factor analysis.

According to the evaluation of the calculated data, a total of 6 significant factors were identified following the evaluation of the survey. One of them only slightly exceeded the value of 1.0 and for this reason it had been eliminated from further assessment. In total, therefore, there were identified 5 significant factors that meet the criteria according to this methodology: Quality receptionists, Business oriented, Expert innovators, Distance learners and Arrangement oriented (see the Table 1).

Compo-nent	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumula-tive %	Total	% of Vari-ance	Cumula-tive %
1	8.103	31.165	31.165	7.293	28.052	28.052
2	1.789	6.882	38.047	1.779	6.842	34.894
3	1.389	5.342	43.389	1.675	6.440	41.334
4	1.162	4.468	47.857	1.347	5.181	46.516
5	1.053	4.051	51.908	1.344	5.169	51.685

Table 1: Resultant variance of the factor analysis (source: Authors´ calculation)

To make calculations of the factor analysis, the final table was adjusted to leave out variables that were repeated in the factors and did not form a unique factor composition. In addition, variables that hardly reached the required minimum values in order to be included in factors were omitted.

Similar statements of students' evaluation were sought during the monitored education, describing subsequent responses regarding their evaluation that depends on the preferences of individual goals and personal preferences. Based on these elements, the overall perceptions of the groups of students and their responses to the set questions have been described. Identified division helps to establish appropriate criteria in the study plan and teaching-learning process to encourage students to study and progress. The goal was to find groups of variables with significant appearance at the same time to reveal main orientation of groups of students.

The analysis revealed five major categories of students' attitudes, which explains the 52.7% of the total sample. Analysis grouped variables into factors in the composition shown in the Table 2 below. Significant dependencies are in bold. Factors are constructed based on their content and relationships to similar variable and their simultaneous use.

The first factor is formed by variables that summarize students who are fully interested in the educational process and its components. The Factor is formed of 13 initial statements regarding quality. They evaluate areas of quality lessons, subjects and teachers. This group is not specified by gender of job position. Students grouped by Factor 1 perceive subjects as beneficial and filling their expectations, they evaluate lessons as understandable, tempo and style suits them. Additionally, this group also positively evaluates teachers, stating that they attract their interest, motivate them to learn, connect theory and practice, focus on students´ needs and pay attention to practicing. On the other hand, this group of students does not care for demands for exams. They are interested in learning process, quality of education rather than exam demands. Additionally, they do not care about teaching techniques and technologies. They focus on the content of each subject or course. Therefore, this group formed by Factor 1 can be named Quality receptionists.

It is positive to reveal that this group is rather large; the factor explains almost one third of behavior of students (28.1%). It is very pleasant to work with this group and teach in such classes. They also positively evaluate quality of a study program and the benefits brought to them by education.

Statements	Factor 1	Factor 2	Factor 3	Factor 4	Factor 5
sex (female=1)	-.158	-.183	.044	**.658**	-.053
job in business	.064	**.844**	.002	-.066	.003
plans for job in business	.051	**.833**	.022	.037	-.017
subject filled expectations	**.660**	.127	-.005	.127	.108
subject is beneficial	**.506**	.244	-.013	.270	.062
study materials are available	.204	.008	.187	**.475**	-.006
adequate lessons	**.767**	-.004	.080	-.045	.150
adequate explanation style	**.795**	-.004	.088	-.029	.116
understandability of lessons	**.784**	.089	-.002	.012	.027
suitable tempo	**.684**	.115	.085	.040	-.056
suitable lessons´ style	**.796**	.030	.038	.018	.135
expert teacher	.121	.044	**.751**	.099	-.016
use of modern techniques	.039	-.015	**.742**	.006	**.426**
use of modern technologies	.293	-.002	.217	.067	**.650**
motivates to learn	**.598**	.101	-.021	.278	.258
attract interest	**.641**	.088	.098	.192	.185
adequate explanation	**.801**	.003	.188	-.023	.041
connection on practice	**.598**	.097	-.103	.252	.270
practicing	**.595**	.078	-.143	.228	.293
focus on students	**.608**	.015	.223	.090	-.033
exam demands are adequate	.042	-.004	-.008	-.049	**.543**
Name of the group	Quality receptionists	Business oriented	Expert innovators	Distance learners	Arrangement oriented
% of variance	28.052	6.842	6.440	5.181	5.169

Table 2: Resultant factors – students´ behaviour (source: authors' calculation)

The second factor groups together students who already work or plan to work in the studied subject area. The factor shows that those students are a specific group with a specific behaviour. The factor analysis did not show enough details to see, what the specifics are, but the closer analysis of the data shows the group (identified by the factor analysis as 6.8% of the sample of students) is divided into two solid parts of almost the same size. The first part is focused on their business practices and finds hard to adapt to the new or different ways of thought subject content. Sometimes, they even have a problem with teachers' authority, as they perceive themselves as experts. The other part of the Factor 2 is completely opposite to the first part. Those practitioners enjoy deepening their practical knowledge and support their own theories. They closely cooperate with the lecturer and share their ideas. Additionally, they deeply appreciate new ways of teaching techniques and possibilities.

The second factor may be named Business oriented. As described, it is a factor divided into two parts. Both parts must be closely attended. The focus should be paid to the identification of their focus to address their preferred teaching techniques to reach expected synergy and sharing ideas between a teacher and students.

The third factor revealed a group of students who are interested in expert knowledge and skills together with expert use of the modern teaching techniques. They perceive and demand the expert quality of education on the part of teacher and also by technical support. Totally 6.4% of sample of students behave in this manner. Therefore, the factor may be named Expert innovators. Those students are not oriented on exam demands, they focus on specific new knowledge gained and its form in terms of providing new information. Factor 3 describes students who are searching for something new, innovative and special that moves them forward. This group is very demanding for teaching. On the other hand, it is a good motivation for teachers to focus on new added value in all lessons given. Thus, it leads to the constant innovation of teaching-learning process.

Factor 4 shows a connection with female students. They have special demands on studies, e.g. distance study materials, voluntary participation or individual exam terms to have time for family and kids. Totally 5.2% of students behave this way. As the sample contained 62% of female, that means a significant part of female respondents that behave in this manner. They are oriented on the support by study materials. This group is not interested in teaching process, teachers´ quality, experiences or style, neither lessons nor practicing. They probably do not place presence at the lectures and contact learning at the first place. On the contrary, they mostly self-study, and thus study materials are the most important thing for them. Therefore it is possible to name this factor Distance learners. It is necessary to count also with this type of students within the design of the educational process. In current economy where the demands for employees are very high and sometimes they have to change their job position quite often even to different sector or area, it is necessary for them to be able to develop their knowledge and skills at the same time "on the run". There may be even more of this kind of students in the future. Moreover, female students usually have families to take care of during studies and it is even more demanding. Thus, accessible and quality study materials for self-study are a necessity for them.

The fifth factor includes students oriented more on technical arrangements of the education rather than its content. They appreciate the use of the modern teaching techniques and technologies and look forward to innovative style. Additionally, they search for perceived or actual difficulty of the subject and for learning skills necessary for passing an exam successfully. They search for a link between the content of a subject and its fit to the exam requirements. Because of this combination, the factor may be named Arrangement oriented. In sum, 5.2% of student sample evaluate primarily these areas and are important to them.

The analysis of the quality of the educational process evaluation revealed five homogenous groups of students. Identification of these groups may help to design the educational process in the way of focusing on practice, addressing the needs and preferred teaching techniques by students and teachers especially when students are already experienced in a taught subject and importantly to prepare quality materials for self-study for students who are not able to attend all lessons and to clear the expectations on exams for students who does not link the taught subject to its practical implications.

Discussion

With regards to the results of the research we can summarize that students participating in the research have different criteria, which are important for evaluating the educational process quality. That is why their answers were put into 5 basic groups describing students' emphasis. It is necessary to realize that such a feedback from students is important not only in particular ongoing subjects, also at the end of such subject, but also for the entire course of their studies. Because there is a subjective distortion of evaluation for example due to the failure during exams. The importance of the continuous feedback, which, in the case that a school management reflects it, can help to improve the quality of the educational process, provided by students during and after their studies corresponds to the recommendation by Tsinidou, Gerogiannis, and Fitsilis (2010). According to Thatcher et al. (2016), institutions in the higher education sector should draw conclusions from the individual assessments by students, as emphasized by O´Connor and O´Hagan (2016) when assessing teachers, and adjust their subsequent strategic development, because, as indicated in the researches by Shahjahan and Morgan (2016), an assessment of the education learning outcomes brings the possibility how to improve own competitiveness in the higher education sphere. Nowadays, this is important for private as well as public universities according to the research by Ashraf, Osman and Ratan (2016).

The achieved results showed that groups of questioned students primarily lay emphasis on a content of each subject, possibility of using knowledge in practice, which is in accordance with He and Hutson (2016), the competence of teachers and reaching study goals through available materials, which is also in accordance with the previous results of researches at selected Czech universities according to Cejpek et al. (2014) or foreign researches by Delaney (1997) or Ognjanovic et al. (2016).

Conclusion

The present paper analyses and assess the education quality process in a selected private Czech university. The paper focuses on the perception of the education quality by students. The results show that analysed students assess the educational process quality according to 5 main identified factors, which describe their behaviour, thus what is crucial for them when assessing each subject. The first factor, "Quality receptionists", is formed of 13 variables, which have a high predicative value for students as the coefficients range from 0.506 to 0.801 and are focused not only on the evaluation of the context of the subject by students but also on the personality of the teacher, which is, according to the results from the researches by Cejpek et al. (2014), crucial for ensuring the quality of the educational process. The second factor, "Business oriented", is formed by work within the branch and plan rotation (0.833 – 0.844). This factor is closely linked to the practice and lays emphasis on the fact if students already have own experience working in the branch they study, and thus developing their existing knowledge and experience (primarily in the combined level of studies). On the contrary, the factor "Expert Innovators" focuses on the fact if students think a teacher is an expert in his/her branch, respectively, he/she has a practical experience with his/her subject according to student´s assessment and if obtained knowledge is applicable for students in their practice. This influences their further decisions to continue to the next study grade or further education within MBA, Ph.D., etc. The factor "Distance Learners" show a group of students, for whom it is important to have enough high-quality study materials (text, presentations, case studies, etc.), and factor "Arrangement Oriented" identify that these students currently lay emphasis on using modern techniques and technologies in education, which is in accordance with the results of the researches by Borges and Stiubiener (2015).

The theoretical contribution of the article lies in general identification and evaluation of the factors of the education quality at the higher education. The practical contribution of this article lies in presenting the concrete results from students' and academicians' evaluating the educational process at a private university. The results are important for ensuring continuity of the assessment process of academic staff and preparation of the new study program according to the students' perceptions. Besides this study there are several promising directions for further research. It would be useful to include the influence of the students' results at the particular exams of subjects and their final results before the practice at the state final exams and their subsequent success when looking for a job in the labour market.

Acknowledgments

This contribution is a follow-up to the project of University of Economics and Management, grant number GCES0315.

References

Anderson, V. (2009) *Research methods in human resource management*. London: Chartered Institute of Personnel and Development.

Ashraf, M. A., Osman, A. Z. R., and Ratan, S. R. A. (2016) 'Determinants of quality education in private universities from student perspectives: a case study in Bangladesh'. *Quality Assurance in Education*, vol. 24, no. 1, pp. 123-138. http://dx.doi.org/10.1108/QAE-09-2013-0040

Benyon, L. (1981), Curriculum continuity', *Education 3-13*, vol. 9, no. 2, pp. 36-41. http://dx.doi.org/10.1080/03004278185200201

Borges, G., Stiubiener, I. (2015) 'Recommending learning objects based on utility and learning style', *Proceedings - Frontiers in Education Conference, FIE*. Spain: Melia Castilla Hotel and Convention Center Madrid.

Cejpek, V., Gavalcová, T., Nantlová, S., Pabian P., Rajmon, R., Valová, L. (2014) *Jak rozvíjet kvalitní vysokoškolské vzdělání*. [Online] MŠMT. Available: https://www.slideshare.net/ipnkvalita/jak-rozvjet-kvalitn-vysokokolsk-vzdlvn [3 Jan. 2017].

Clark, J. (1995) *Suggestions for effective university teaching*. [Online] Available: http://io.uwinnipeg.ca/~clark/acad/teach/effteach.html [2 Jan 2017].

Clark, M. A., Lelchook, A. M., and Taylor, M. L. (2010) 'Beyond the Big Five: How narcissism, perfectionism, and dispositional affect relate to workaholism', *Personality and Individual differences*, vol. 48, no. 7, pp. 786-791. http://dx.doi.org/10.1016/j.paid.2010.01.013

Delaney, A. M. (1997) 'Quality assessment of professional degree programs', *Research in Higher Education*, vol. 38, no. 2, pp. 241-264. https://doi.org/10.1023/A:1024989805110

Gaillard, F. D., Mitchell, S. P., and Kavota, V. (2011) 'Students, Faculty, and Administrators Perception of Students Evaluations of Faculty in Higher Education Business Schools', *Journal of College Teaching & Learning (TLC)*, vol. 3, no. 8. http://dx.doi.org/10.19030/tlc.v3i8.1695

He, Y., and Hutson, B. (2016) 'Appreciative assessment in academic advising'. *The Review of Higher Education*, vo. 39, no. 2, pp. 213-240. http://dx.doi.org/10.1353/rhe.2016.0003

Hebák, P., Malá, I. and Hustopecký J. (2006) *Vícerozměrné statistické* metody. Praha: Informatorium.

Hendl, J. (2006) *Přehled statistických metod zpracování dat*. Praha: Portál.

Jones, B. K. (2016) 'Enduring in an "Impossible" Occupation. Perfectionism and Commitment to Teaching', *Journal of Teacher Education*, vol. 67, no. 5, pp. 437-446. https://doi.org/10.1177/0022487116668021

Ministry of Education, Youth and Sports. (2015) *Rámec rozvoje vysokého* školství *do roku 2020*. [Online] Available: http://www.vzdelavani2020.cz/images_obsah/dokumenty/ramec_vs.pdf [2 Jan 2017].

O'Connor, P., and O'Hagan, C. (2016) 'Excellence in university academic staff evaluation: a problematic reality?', *Studies in Higher Education*, vol. 41, no. 11, pp. 1943-1957. http://dx.doi.org/10.1080/03075079.2014.1000292

Ognjanovic, I., Gasevic, D., and Dawson, S. (2016) 'Using institutional data to predict student course selections in higher education', *The Internet and Higher Education*, vol. 29, pp. 49-62. http://dx.doi.org/10.1016/j.iheduc.2015.12.002

Palát, M. (2012) *Statistické zpracování dat*. [Online] Available: http://www.vuchs.cz/OPVpK/dokumenty/Palat-Statistika-2.pdf [3 Mar 2016].

Sanders, D., White, G., Burge, B., Sharp, C., Eames, A., McEune, R., and Grayson, H. (2005) *A Study of the Transition from the Foundation Stage to Key Stage 1. Research Report: SSU/2005/FR/013*. National Foundation for Educational Research. The Mere, Upton Park, Slough, Berkshire, SL1 2DQ, UK.

Shahjahan, R. A., and Morgan, C. (2016) 'Global competition, coloniality, and the geopolitics of knowledge in higher education', *British Journal of Sociology of Education*, vol. 37, no. 1, pp. 92-109. http://dx.doi.org/10.1080/01425692.2015.1095635

Shields, P. (2009) 'School doesn't feel as much of a partnership: parents' perceptions of their children's transition from nursery school to Reception class', *Early Years*, vol. 29, no. 3, pp. 237-248.

Simpson, P. M., and Siguaw, J. A. (2000) 'Student evaluations of teaching: An exploratory study of the faculty response', *Journal of Marketing Education*, vol. 22, no. 3, pp. 199-213. http://dx.doi.org/10.1177/0273475300223004

Thatcher, J., Alao, H., Brown, C. J., and Choudhary, S. (2016) 'Enriching the values of micro and small business research projects: co-creation service provision as perceived by academic, business and student', *Studies in Higher Education*, vol. 41, no. 3, pp. 560-581. http://dx.doi.org/10.1080/03075079.2014.942273

Tsinidou, M., Gerogiannis, V., and Fitsilis, P. (2010) 'Evaluation of the factors that determine quality in higher education: an empirical study', *Quality assurance in Education*, vol. 18, no. 3, pp. 227-244. http://dx.doi.org/10.1108/09684881011058669

Urbancová, H., Vnoučková, L., and Smolová, H. (2016) *Talent management v organizacích v České republice.* Praha: Edice Monografie VŠEM.

Urbancová, H., and Šnýdrová, M. (2017) 'Remuneration and employee benefits in organisations in the Czech Republic', *Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis*, vol. 65 (40), no. 1, pp. 357-368. https://doi.org/10.11118/actaun201765010357

Vnoučková, L., Urbancová, H., and Smolová, H. (2017) 'Students´ Behavior towards Education Quality Standards'. *Proceedings of the 14th International Conference on Efficiency and Responsibility in Education,* Prague, Czech University of Life Sciences, 2017. pp. 520-527.

Weisberg, D., Sexton, S., Mulhern, J., Keeling, D., Schunck, J., Palcisco, A., and Morgan, K. (2009) 'The widget effect: Our national failure to acknowledge and act on differences in teacher effectiveness', *New Teacher Project*. [Online] Available: https://tntp.org/assets/documents/TheWidgetEffect_execsummary_2nd_ed.pdf [4 Mar 2017].

Williams, M., and Howley, R. (1989) 'Curriculum discontinuity: a study of a secondary school and its feeder primary schools', *British Educational Research Journal*, vol. 15, no. 1, pp. 61-76. http://dx.doi.org/10.1080/0141192890150106

Xu, J. C., Duan, Z. B., and Chen, Q. (2002) 'On curriculum resources and it's exploration and utilization', *Subject Education,* vol. 15, no. 2, pp. 1-13.