# Evaluation of student satisfaction and service quality: case study of university education in Poland

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# EVALUATION OF STUDENT SATISFACTION AND SERVICE QUALITY: CASE STUDY OF UNIVERSITY EDUCATION IN POLAND

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## Abstract

This article presents findings of student satisfaction evaluations when it comes to the most important aspects of studying: Computer Science and Management of the Faculty of Computer Science and Management of the Wrocław University of Technology. The level of satisfaction was treated as an indicator of quality of the educational services provided by the entity. Based on the collected results, a set of recommendations was suggested aiming to improve the quality of provided services.

Keywords: student satisfaction, quality of services, university, evaluation reports

## 1   INTRODUCTION

Improving every organization, including universities, is nowadays considered a necessity and shows technical and organizational progress. In order to compete on the European and the world market, Polish universities are forced to improve their ways of operating. One of the most significant factors that may contribute to improving the university management quality is making management decisions based on reliable data, opinions and information [1]. Subject literature indicates that continuous improvement of university management quality is a basic condition for its development [2]. Therefore, improving management processes should satisfy the needs and expectations of the university's various stakeholders, particularly its students [3]. For this purpose, it is necessary to use relevant tools to monitor the results being achieved and, in particular, to perform evaluations of the degree of satisfaction with services offered by a university. At present, amid the growing competition on the educational services market, student plays a role of a customer expecting high quality services of which he is a recipient and a consumer [4] [5]. Furthermore, for many universities, they are the basic source of income. For this reason, many universities undertake actions aiming to match their educational offer to the continually changing needs of their potential students [6]. Many of them conduct systematic student satisfaction evaluations bearing in mind that the need to improve satisfaction from studying may be an important factor in competing with others [7]. In this article, satisfaction was treated as a general feeling of contentment with selected educational services, which is a resultant of various elements strictly related to the teaching process, i.e. level of education, level of formal class organization, communicativeness of service points used by the university to send information to students, adaptation of buildings and rooms to the needs of students, level of library equipment, etc. The authors of this article point out that

the need to evaluate factors of student satisfaction defined in such a way is an extremely important aspect of proper university management as it indicates areas that require improvement [8]. Conducting student satisfaction evaluations provides data on their opinions concerning the way a university operates. It also allows for an assessment of the teaching process that has been implemented. Furthermore, it is a valuable source of information which ought to be considered when planning potential improvements [9]. Therefore, the main objective of this article is the evaluation of the level of student satisfaction with the most important aspects of studying Computer Science and Management at the Faculty of Computer Science and Management of the Wrocław University of Technology.

## 2   METHODOLOGY

In order to conduct evaluations, a survey questionnaire was used. It was divided into areas important for assessing the level of student satisfaction, namely: studying conditions, research and teaching staff, implemented educational service and library. Additionally, three selected areas had a dedicated open question aiming to obtain information about proposals on possible improvements. The questionnaire contained questions on the general level of satisfaction as well as questions requiring an evaluation of the degree of significance of 60 criteria that may affect student satisfaction. The evaluation was conducted in June 2017 using traditional paper survey questionnaires. The evaluation involved 187 students: 69 studying computer science and 118 studying management. The majority of respondents were male – 61.5%. All of the respondents were students of full-time BA programmes.

## 3   RESULTS

Presented below is a part of comparative studies between students of two examined majors with regard to the general evaluations and the degree of significance of four examined areas. These analyses did not display many statistically significant differences, except for the general assessment of studying conditions and the importance of curriculum that proved significantly more advanced and substantially more important in the group of students of Computer Science. The results of the evaluation also revealed that students pay a lot of attention to their lecturers' attitudes, behaviour and work.

### 3.1   Level of satisfaction with regard to "studying conditions"

The area related to studying conditions contains student opinions concerning the way the dean's office operates, elements of infrastructure, websites and other methods of formal communication with students. Student satisfaction factors identified as potentially important in this area relate to numerous detailed issues, e.g. satisfaction with opening hours of the dean's office, competences and kindness of employees, lighting and aesthetics in lecture halls, up-to-dateness of information on the Faculty's website and many other.

The analysis of answers to questions on the level of satisfaction and significance of 24 elements within the area of "studying conditions" indicates that most of them were assessed above the neutral point, i.e. the average was at the level of 3.0. The average evaluation for the whole area amounted to 3.49 and the average of the degree of significance was 4.04. Most favourably evaluated aspect was lighting and cleanliness of teaching rooms, whereas the most important aspects included the opening hours and the waiting time for handling things at the dean's office, communicativeness of the dean's office employees, equipment in teaching rooms and laboratories, and access to wireless Internet in teaching rooms. One of the elements of this area - waiting time for handling things in the dean's office at the beginning/end of the semester - was assessed below the neutral level. The collected data shows that differences between assessments made by the students of both majors are small. Student t test demonstrated that said difference (particularly in satisfaction level) is on the verge of statistical significance ($t = 2.059$, $p = 0.41$).

The collected qualitative data, being a derivative of answers to an open question aiming to obtain information on problems and proposals concerning possible improvements with regard to the analysed area, was divided into three key categories: assessment of the dean's office functioning, assessment of the Faculty's website and assessment of teaching rooms. Regarding the first category, i.e. functioning of the dean's office, the majority of comments submitted by respondents related to non-flexible opening hours of the dean's office and problems occurring when communicating with students. Students often remarked on the issue of the website's unfriendly interface and inadequate updates posted. The analysis

of the respondents' answers significantly helped the process of formulating recommendations with regard to the proposed activities aiming to improve the quality in the most problematic areas.

## 3.2   Level of satisfaction with regard to "research and teaching staff"

Another area subject to analysis referred to the general evaluation and assessment of the degree of significance of aspects related to the substantive preparation, attitude towards the students and competences of the research and teaching staff. Questions focused on the attitude of the Faculty's teaching staff towards the students as well as their responsibilities (questions were asked about the commitment, availability for students, compliance with consultation hours, support for students in their development) and special competencies: communication and ethics.

The analysis of answers to questions on the level of satisfaction and assessment of significance of 10 elements within the area of "research and teaching staff" indicates that most of them were assessed above the neutral point, i.e. average at the level of 3.0. The average evaluation for the whole area amounted to 3.40, the average degree of significance was 4.32. Most favourably evaluated aspect was the availability of teachers during consultations, and the lowest notes were given to fair assessment by the teachers. The most important aspects, as recognized by respondents, included the substantive level (this factor obtained the highest notes when it comes to the degree of significance from among all analysed aspects in the whole study), involvement in conducting classes and fair assessment by academic teachers

## 3.3   Level of satisfaction with regard to "teaching service"

One of the most important elements of a comprehensive evaluation owing to quality and significance of various elements of studying at the Faculty of Computer Science and Management of the Wrocław University of Technology was to evaluate the implemented teaching service. Therefore, questions from this area related to the studies curriculum, offered electives, repeatability, consistency and distribution of teaching content, availability of course charters and others.

The analysis of answers to questions on the level of satisfaction and the assessment of the degree of significance of 13 elements within the area "teaching service" indicates that this area receives the lowest notes from the students, and the analysis of the significance of differences shows that, statistically, it is evaluated significantly lower than the remaining three areas (studying conditions, research and teaching staff and faculty library). The average evaluation for the whole area amounted to 3.13 and the average degree of significance was 4.21. The most favourably evaluated aspect was the availability of the studies curriculum and course charters. The lowest notes were given to the distribution of workload in the current year (3rd year of BA studies) and it was the lowest level from all partial evaluations in all four analysed areas. The following proved the most important for the respondents: fulfilment of expectations and providing skill development opportunities for students through a curriculum, proper selection of mandatory subjects and electives as well as distribution of workload in the current year and during studies.

As part of examining this area, respondents were also asked to indicate elements of studies (types of classes) which, in their opinion, are too few or too many. Among classes considered too numerous by the respondents were definitely lectures (57.8% of responses), while study visits in companies and other organizations (59.9% of responses), practitioners' visits at the university (52.9% of responses), student internships (33.7% of responses), and student projects (32.1% of responses) were considered too few.

The importance of this area for the examined students can be also indirectly concluded from the quantity of qualitative data collected in response to open questions aiming to obtain information about the main problems and possible improvement proposals. The analysis of data obtained showed that, from among comments formulated by the students, the following aspects can be distinguished: repeatability of content of the implemented courses, manner of conducting classes by the research and teaching staff, organization of curriculum and organization of the process of awarding a diploma.

With regard to the first aspect - repeatability of content of the implemented courses - students of both majors indicated not only the subjects and teaching content they consider to be too much, but also identified content duplicated in various courses. Many students submitted comments on the method of

conducting classes. They focused mainly on the lack of commitment on the part of the staff (it was the most often recurring complaint), not updating transferred knowledge and information, giving lectures in a monotonous manner and lack of consequences when it comes to fair assessment of students. In addition, with regard to the content provided during the classes, students pointed to the inadequate, in their opinion, number of practical examples focusing mainly on theoretical issues, uselessness of transferred knowledge, and low substantive level of some classes.

Raising the issue of curriculum structure, students indicated the unnecessarily large number of forms of education focusing on transferring theoretical knowledge and excessively large number of courses not directly related to the subject of education (i.e. computer science or management). Furthermore, students indicated a group of courses, in their opinion, not in line with their needs as far as knowledge and skills necessary in their future professional work are concerned. At the same time, with regard to the process of awarding a diploma and organizing classes, respondents pointed out that the degree of workload imposed by classes, in particular those of project nature, does not allow for an effective thesis writing. In addition, they expressed the need of a more flexible curriculum so as to be able to select courses in line with their interests.

## 3.4  Level of satisfaction with regard to "faculty library"

The evaluation of the faculty library's functioning and services proved difficult to many respondents as they declared very rare contact and sometimes even a complete lack of experience and usage of the library's offer. The analysis of the collected data demonstrated that, for this whole area, among students of computer science, as much as 17% of data gaps were recorded (this many people did not complete this part of the questionnaire) and among students of management, this ratio amounted to 10%. Altogether, approximately 13% of no answers to various questions concerning the library's functioning were recorded. When it comes to the general question about the frequency of using the library, as much as 24.6% of the entire sample answered never, 17.1% - less than once a year, and 9.6% - once a year. This data points to an important issue – students not seeing the necessity or need to use the library.

Detailed questions from this area focused on the terms of using the library, the library employees' attitude towards the students, book collections, borrowing books, and the digitalization level of the library services. The average evaluation for the whole area amounted to 3.87, the average of the degree of significance was 3.97. Most favourably assessed aspects included: aesthetics of rooms and friendliness and helpfulness of the library's employees. Least favourably assessed aspects included: access to the electronic base and the possibility to make bookings online. Low notes were also given to the number of items one can borrow. The most important aspects, according to the examined  students, included: the size of resources, access to the electronic base, the period of time for which one is permitted to borrow books and the number of items one can borrow.

The analysis carried out with sample divided into two majors did not show statistically significant differences between students of computer science and those of management in evaluations of satisfaction and assessments of the degree of significance of particular elements within the area.

Interesting data, bearing in mind the absence of practices and need for using the library services, was provided by the analysis of answer to the open question aiming to obtain information about the main problems and possible improvements. The analysis of the collected comments provided by the students showed that they believe that the opening hours of the library should be longer, items ought to be updated and supplemented with the latest content and, what is most important, the very purpose of the library should be modified so as to favour team work, working on projects or using data resources.

## 3.5  Recommendations

Based on the collected data, a set of recommendations was prepared aiming to improve the quality of provided services. They focused on the following issues:

- with regard to "studying conditions": improving the dean's office functioning, standardizing and updating websites;
- with regard to "research and teaching staff": strengthening the substantive level of classes, strengthening the teaching potential of employees, improving the method of evaluation;
- with regard to "teaching service": drawing up a new or modified curriculum and course charters;

- with regard to "library": increasing the availability of the library, improving infrastructure, increasing the potential of utilizing the reading room.

## 4  CONCLUSIONS

Examining student satisfaction and the quality of provided services helps to obtain information valuable for university management. Firstly, the results show what criteria are used by the students when evaluating their satisfaction with the educational offer, what is the most important and what is less important or even unimportant. Secondly, the collected data allows for these areas of activity requiring improvements to be identified. Such information can facilitate the positioning of the university's offer on the educational services market and be used in its promotional activities. Thirdly, one should emphasize the need for such evaluations to be conducted systematically. Monitoring the obtained data in the long run may become a valuable source of information about the changes in the level of student satisfaction. It may also enable a comparison of this level with the assessment of satisfaction regarding competitive offers. What is important, student satisfaction evaluation designed in such a way should include exploration phase, namely identification of factors influencing their satisfaction (attributes of the offer and criteria of their evaluation) and diagnostic phase aiming to identify the ratio of satisfaction reflecting the comprehensive evaluation of the level of satisfaction based on the average notes given to all attributes, according to the adopted criteria. The results of the conducted evaluation also demonstrate the importance of qualitative data. It allows not only for a better diagnosis of reasons for assessing satisfaction factors, but also is particularly helpful when formulating proposals for remedial actions with regard to the least favourably assessed areas. Student satisfaction evaluations can thus be treated as a supporting process for the education quality assurance system with regard to monitoring and periodical verification of the quality of provided educational services.

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