E-STUDENT SERVICE SYSTEM

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ABSTRACT

This paper presents the results from the survey conducted on more than 420 students in order to evaluate the quality of the newly developed e-Student Management System. This activity is part of the WP5 – Quality Control of the TEMPUS Project JPGR 511342. Pilot version of the system that was developed in the frame of the project was installed at the Faculty of Computer Science and Engineering, University Ss. Cyril and Methodius. The goal of this survey was to analyse the stakeholder (student, employees and teachers) perspective of the system usage and its quality.

I. INTRODUCTION

The main objective of the TEMPUS Project JPGR 511342 is to modernize student activities within University Management by innovative and knowledge management IT supported design with eServices capable to integrate in future eGovernment services in Europe and approaching Information Society with knowledge based economy [1]. The aim of the conducted survey on more than 420 students was to evaluate the quality of the newly developed e-Student Management System started, part of the WP1. This activity is part of WP.5 (QPLN) Quality control, especially in the activity 5.2 where the students evaluated the performance of the overall system [2].

Some of the general project objectives have been:

- data management
- organizing study programs
- reporting
- alumni site
- issuing news and announcements
- integration of other systems
- good maintainability
- user friendly
- increasing effectiveness
- high performance and availability

These objectives were evaluated in the survey, bearing in mind for the survey to be as short as possible in order to have higher number of participants. The e-Student Management System developed in the frame of the project is currently used from the following stakeholders: employees at the Faculty, students and people who are maintaining the software itself.

II. PLANNING A SURVEY

A pilot institution for installation and using of the e-Student Management System was Faculty of Computer Science and Engineering, University Ss. Cyril and Methodius. During this pilot installation, some quality attributes of the system itself could be measured and evaluated.

The goal of the conducted survey was to evaluate the student opinion of the e-Student Management System from three perspectives: accessibility, usability and performance. The structure of the questions, as well as their grouping was made according to this goal. Since the system itself is mainly designed and developed to simplify and improve the student activities, the main target of the survey were the students that were using the system for more than 10 months.

The team for conducting the survey was supposed to decide on several issues before conducting the survey itself. One of those issues was the medium of conducting the survey, whether it will be on paper, or some software system will be used for that purposes. The decision was to use the eTest software used at the Faculty of Computer Science and Engineering for conducting online surveys and examinations. Figure 1 bellow presents the user interface of this system

Figure 1: User interface of the system for conducting the survey.

The next issue was the format of the questions in the survey, whether they will be open questions, where students can enter their opinions and comments or closed questions where several predefined answers will be presented to the students. For simplicity purposes and for better and faster evaluation of the results of the survey, it was decided to include only closed questions into the survey. Because sometimes these questions and the presented answers can be confusing for those who are answering them, it was decided to put additional effort in the process of question preparation, so that they will be simple and clear for students.

Several feedbacks were collected regarding the size of the survey between those members of the project that were involved in the survey preparation. The intention was to prepare enough questions in order to get the proper feedback from the students, but to prevent a situation where students will not answer those questions at all, leaving all answers blank. This scenario was possible, since the survey was not mandatory for the students. For that reason the number of questions was lowered to 9, and the questions were grouped in three groups which were reflecting the purposes of the evaluation of the system: general information about the system, usability and quality of information presented in the system.

In order to get better feedback (more students which have filled the survey), the survey was given to the students during the examination period, where they had a chance to participate in it. Students were not forced to participate in the survey, it was their will whether they will answer the questions or not.

The survey was conducted during 2 days period, it was anonymous, and the questions were on Macedonian language. 420 students answered the survey and their responses are presented in the next section.

III. RESULTS FROM THE SURVEY

The first group of three questions had the purpose to gather general information about the system and about the student's perception and acceptance of the system.

The first question was "What is your general satisfaction from the iKnow system?". The purpose of this question was to get some information about the general acceptance of the system itself by the students. The results are presented on the Figure bellow.
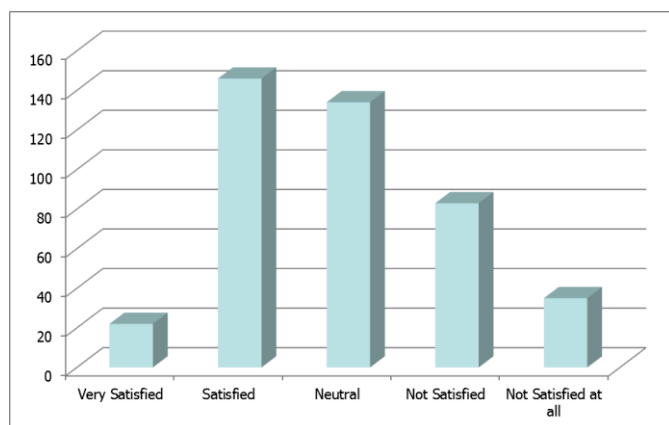

Figure 2: What is your general satisfaction from the iKnow system?

In general, majority of the participant were satisfied or neutral regarding the satisfaction from the system.

The second question was "How do you evaluate the support that the system gives you as a student?". The purpose of this question was to get information whether the system improves the everyday student activities at the Faculty or not. The results are presented on Figure 3.

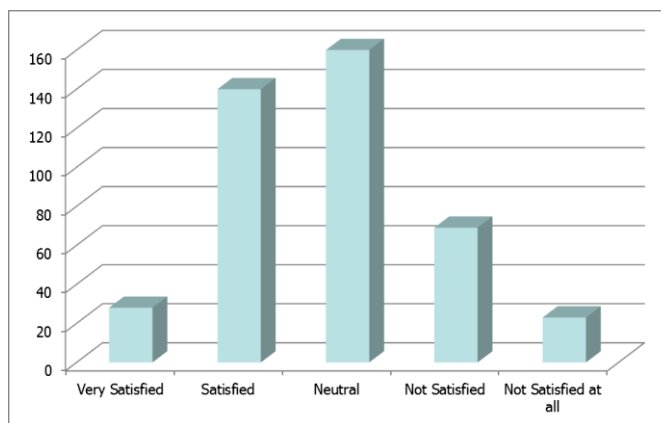Again the results were similar and in correlation with the satisfaction form the system.

Figure 3: What is your general satisfaction from the iKnow system?

The third question was "Do you support future usage of this system with enhanced functionalities?". The purpose of this question was to get information whether the students support the usage of this system or not. The results are presented on Figure 4.
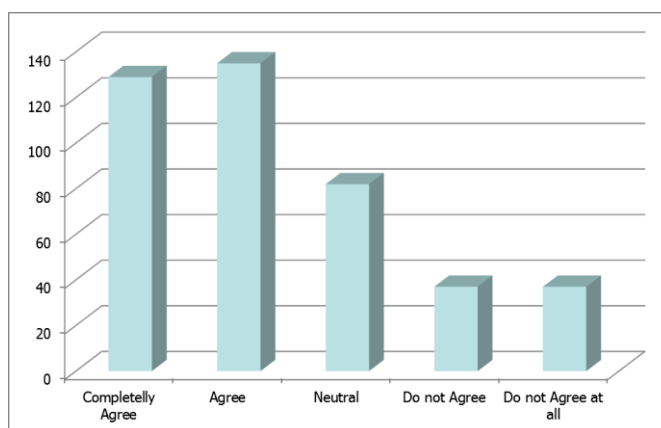

Figure 4: What is your general satisfaction from the iKnow system?

The answers undoubtedly confirmed that the students would like to see more functions added to the system. Evaluating the answers to this group of questions, we can conclude that the majority of the students had positive-neutral perception on the system.

The next group of three questions were placed with a purpose to evaluate systems usability.

The fourth question of the survey was "The browser you are using displays all information in a correct way?". The purpose of this question was to get information whether the system is designed in a way that can be accessed using different types of browsers. The results are presented on Figure 5.
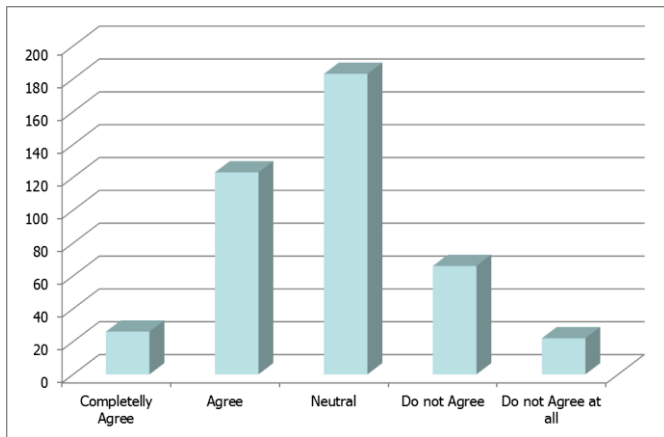
Figure 5: What is your general satisfaction from the iKnow system?

The majority of the participants were neutral with the answers. We can conclude that either they did not face any major difficulties or were not aware of.

The fifth question of the survey was "The loading time and the response time of the system corresponds to the content which is displayed?". The results are presented on Figure 6.
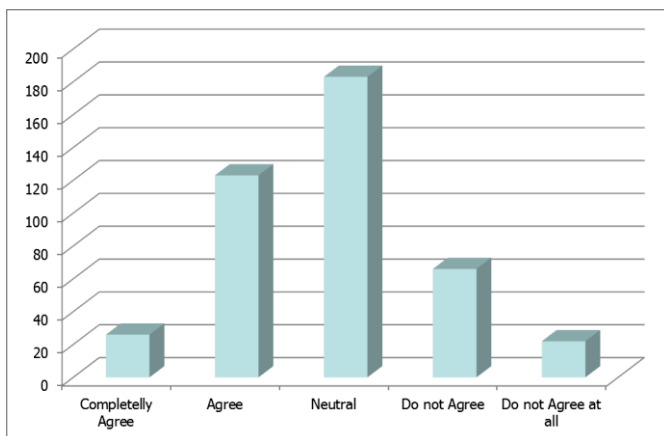

Figure 6: The loading time and the response time of the system correspond to the content which is displayed?

The perception of the participants in the survey was that the loading and response time was acceptable.

The sixth question of the survey was "The system has a consistent look and feel?". The purpose of this question was to get information about the usability of the systems user interface. The results are presented on Figure 7.
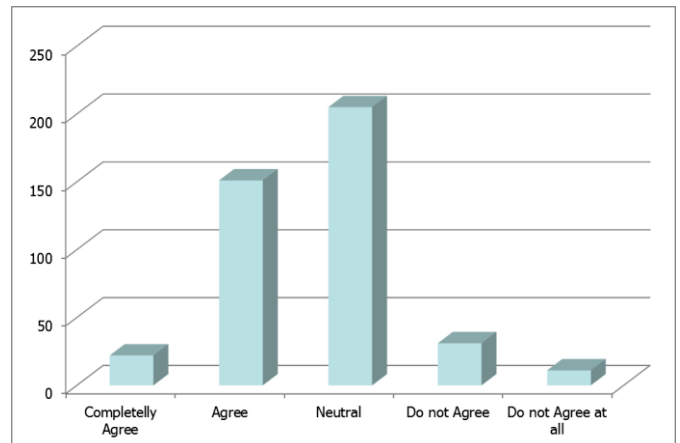

Figure 7: The system has a consistent look and feel?

Undoubtedly the users did not face any major difficulties in the use of the system especially in the part of the consistency of the presented screens.

As with the previous group of questions, in this group the answers were in the area of positive-neutral, without major discrepancies with negative answers.

The next group of three questions were placed with a purpose to evaluate the quality of information present into the system.

The seventh question of the survey was "The messages the system communicates are clear and descriptive?". The results are presented on Figure 8.
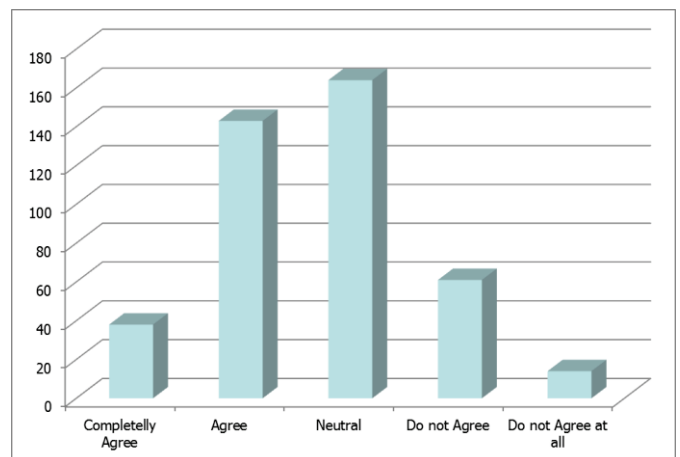

Figure 8: The messages the system communicates are clear and descriptive?

Analysing the answered, we can conclude that the system presented clear messages, without having a large number of participants being unsatisfied with the messages.

The eight question of the survey was "There is an easy channel available to communicate with an administrator?". The results are presented on Figure 9.
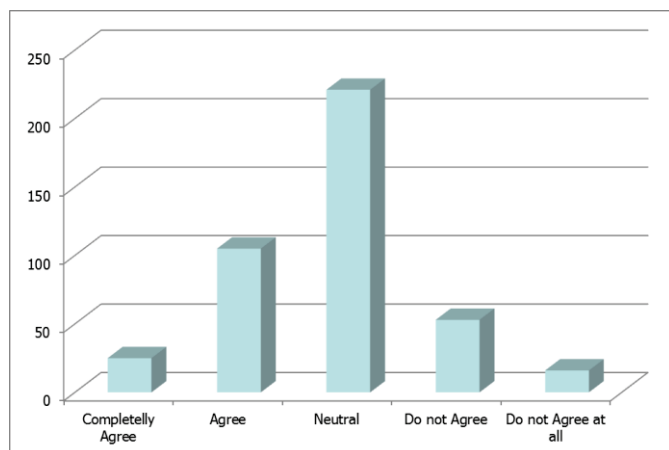
Figure 9: The messages the system communicates are clear and descriptive?

Again the participants were neutral or agreed that there have been a clear channel for communication with the administrators.
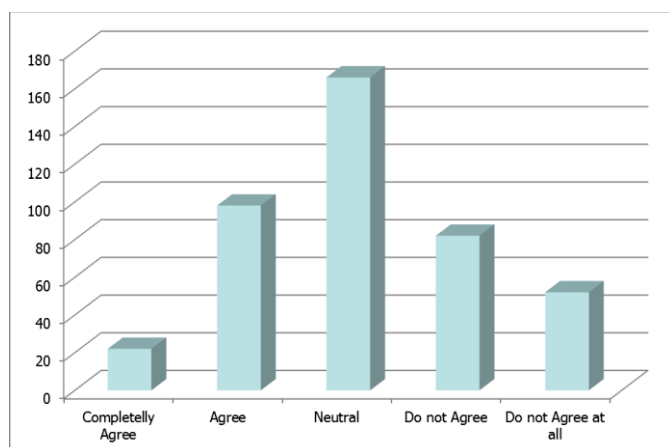

Figure 10: The content is understandable and up to date?

The ninth question of the survey was "The content is understandable and up to date?". The results are presented on Figure 10.

Majority of the participants were neutral to this question. As for the group of questions, the answers were in general neutral-positive.

Having analysed the answers from all the survey question, the general perception of the system from the participants in the are between positive and neutral, that from our point of view is an acceptable perception for a newly introduced information system.

IV. CONCLUSION

We have analysed the results from the survey conducted on more than 420 students in order to evaluate the quality of the newly developed e-Student Management System.

The general conclusion is that the students are neutral to positive about the system. Having in mind the critical approach by the students, especially those IT oriented, we argue that the system is well adopted by the students and that they see the benefits of using the system further.

REFERENCES

[1] iKNOW web site, http://iknow.ii.edu.mk
[2] iKNOW Work Packages, http://iknow.ii.edu.mk/Default.aspx?a=12