

A Parallel Evaluation of an Educational Subject

Rossen Radonov¹ and Valentin Videkov²

Abstract – One could judge the quality of education in a given subject by the student group’s mark as well as by the evaluation, which the group gives to the education they had undergone. The second evaluation is a result of a survey, which is being carried out with the students. Electronic surveys are being carried out at the Technical university of Sofia during the last couple of years in the framework of the System for evaluation and keeping up the quality of education and scientific research. This paper presents the results from the comparison of data from the electronic surveys with other electronic sources of information aiming at the improvement of result’s credibility.

Keywords – anonymous survey, Internet, validation, quality, education.

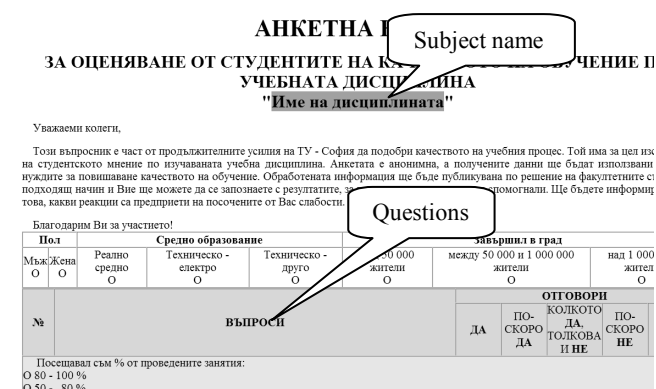


Fig. 1. The survey card.

I. INTRODUCTION

The electronic survey is being used in the framework of the System for evaluation and keeping up the quality of education and scientific research, which makes it possible to collect information about the educational process from students’ opinion about the education they had undergone in a subject in accordance with the requirements of the Law on Higher Education [1]. In order to improve the objectiveness of the surveys they are being carried out anonymously at a specially developed web site. Only those students, who have attended the classes in a certain subject, are allowed to express their opinion, and only they get a one-time valid password for the survey’s web site. It is good to check the results from the assessment for credibility (objectivity).

This paper comments on the results from surveys, which have been carried out in 2007/2008 and 2008/2009 academic years. A criterion for comparison of student’s marks and distribution by sex of the participants with similar distributions obtained from the university student information service has been used. The preliminary comparisons are shown in [2] and [3].

II. THE SURVEY SYSTEM

The electronic survey card, which is shown in fig. 1, is one and the same with its paper version.

The electronic survey system can present information from the surveys, as well as from the survey process itself – fig. 2. This is related to the statistical distribution of the answers of each question, evaluation by assigning values to the different answers, survey card submission dynamics in time, etc.

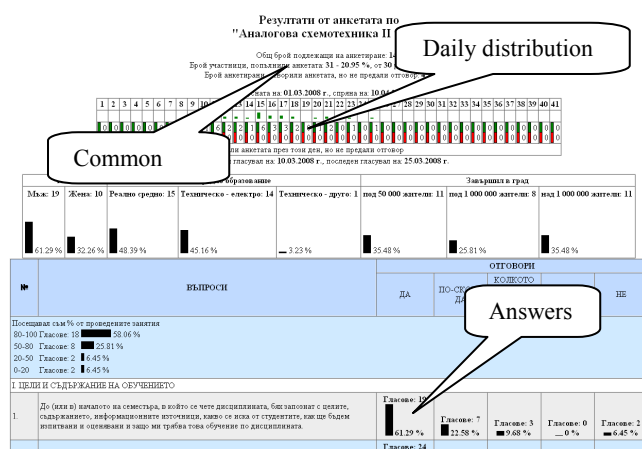


Fig. 2. Survey data.

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III. FIRST RESULTS

A six-grade histogram of students’ marks from the survey and from their examination reports has been used for comparison of students’ marks distribution. If the two histograms coincide, than we have a maximum correlation and can assume the survey’s result is reliable. Two example histograms are shown in fig. 3.

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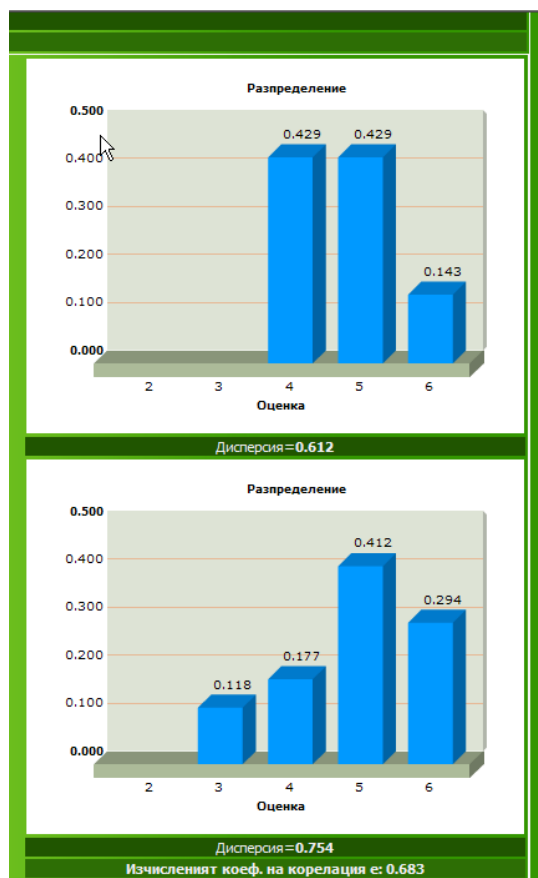


Fig. 3. Example histograms.

The comparisons of the distribution by sex that were carried out did not show stable results for the first ten educational subjects. When reviewing the dispersion of student's marks from their data in the survey and from the examination reports it turned out that it is alike – in the range of 1.47, and the average mark is higher in the survey – fig. 4.

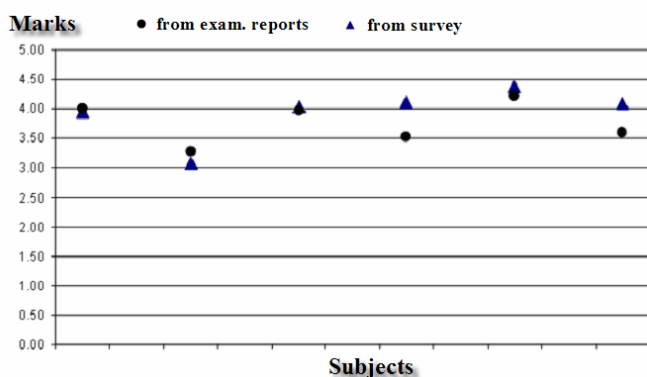


Fig. 4. Comparison of marks.

IV. THE RESULTS IN 2008

The survey's results in 2008 were checked again for correlation of the average mark from the survey and examination reports. The ratio between the two values is shown in fig. 5. It was confirmed that the mark from the survey is usually higher than the one from the examination report. There was deviation only in the data from one subject, where the difference between survey data and examination report was more than one unit and the one from the report was higher.

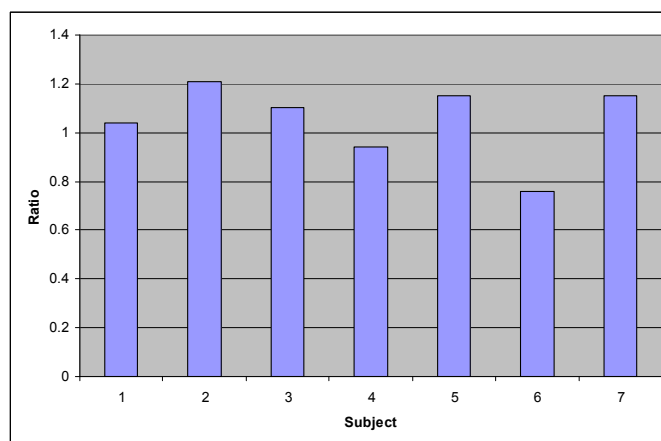


Fig. 5. Correlation of mark.

V. CONCLUSION

Having in mind the secondary research we can assume that the comparison of the data about the mark from the survey and examination report could be used as a criterion for the reliability of the survey. More data from different faculties is needed.

ACKNOWLEDGEMENT

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