Quality of Online Education from the perspective of the students (Sofia university experience)

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Abstract: *The current paper presents part of the results of a scientific survey on significant aspects of the quality of online education from the perspective of students who attend educational programmes at Sofia University and participate in different forms of online learning. The students' opinions and attitudes to three types of blended courses combining traditional and electronic forms of learning in different ways are analysed.*

Key words: *distance learning, blended courses, quality, assessment*

INTRODUCTION

Over the past few years distance learning has attracted the attention of the academia in Bulgaria as well as that of politicians in the field of higher education both as an opportunity to adapt higher education to the learners' changing needs and as a possibility to boost the competition among universities. For the past two years the Bulgarian government has invested 30 million BGN through European Structural Funds in the implementation of distance education at Bulgarian universities. As a result, different universities test various approaches for transforming traditional courses into online, while university lecturers are trained in effective models and strategies for online teaching.

One of the key issues of the massive implementation of this form of learning is quality assurance. E-learning assumes different models and modifications (from being fully online to integrating particular ICT in a traditional course) and its educational quality has become increasingly difficult to identify and to prove. The initial enthusiasm of theoreticians and practitioners about the easily predictable efficiency of any new-technologies-based learning more and more often becomes the subject of serious doubts in view of the research results in this field. An increasing number of researchers direct their efforts in establishing the specific characteristics/symptoms of the effective e-learning in higher education as well as those sets of factors which in their complementarity ensure the quality of the learning experience [1, 2].

In this paper the quality of distance education courses is looked upon through the perspective and evaluation of the students participating in some of its various forms and blended patterns. It partially presents the results from a study conducted within a large-scale project for the implementation of distance learning in the education specialties at Sofia University. Over the last few years more than 90 lecturers have been trained in redesign of traditional courses into online format, as a result of which 100 courses were transformed. A substantial part of these courses were pilot-tested with more than 900 full-time and part-time students from 1 Bachelor and 3 Master programmes at education faculties and specialties at Sofia University. Courses differ in terms of number of students, contents, duration and the ratio of online and in-person learning activities.

QUALITY OF DISTANCE E-LEARNING FROM THE STUDENTS' PERSPECTIVE AT THE PILOT TESTING STAGE

Ulf-D Ehlers [3] conducts an empirical study about the preferences/requirements of 2000 learners who have significant experience in online learning. As a result of the conducted empirical study the author concludes that learners who have significant experience in online learning are able to formulate specific and detailed requirements about the quality of online courses. Whether this is the case with students who have little or no experience in e-learning is a question we are trying to answer in our study. In

other words, is there an internal differentiation among students in their evaluation of e-learning course quality in terms of its different elements?

A further research question refers to the relation between the type of course (the type of blending between traditional and e-forms of learning) and the students' evaluation of its quality. For typologisation of the courses subject to the study, M. Jara and F. Mohamed's classification was used [4]. It is based on the differentiation of key elements of learning such as: learning activities, communication, role of the tutor, course administration, assessment and feedback provision, learning and teaching resources, etc. and the way of their realization – in-person or online. According to the blending type of traditional and online learning forms authors define 7 educational models of blending in blended courses: online administrative support, follow-up, face-to-face events, parallel, distance online support, online resource based, online discussion based.

For the purposes of surveying students' opinions an online opinion poll was developed which participants completed anonymously. Only courses with more than 10 students were selected for the purpose of this research. In terms of content they represent varied educational disciplines. The total number of courses in this survey is 25 and of students - 776. It is important to take into account that all newly developed online courses have received a high mark on quality by external evaluators. Another important fact for this survey is that 45.19% of the participating students had never been involved in online learning before. A big part of the rest of the students had been involved only in one course of blended type prior to the time of the survey; therefore the sample group of students does not have any or alternatively has insignificant previous experience in online learning.

The selected courses are distributed according to M. Jara and F. Mohamed classification as follows: Online Admin Support (OAS) – 12 courses, Follow-up (FUP) – 5 courses, Face-to-Face Events (FFE) – 8 courses.

Table 1 describes the main characteristics of the courses in the separate groups according to the way of blending electronic and traditional forms of learning.

Table 1

Name	**Basic Description**
Online Admin Support (OAS) 12	Virtual Learning Environment (VLE) is used primarily as a repository of resourses and a place for artifacts upload from the students' learning activity. Courses include various information resources: text files (PDF and WORD documents) on lecture materials, articles, parts of books, necessary for task completion; web links (web sites with scientific literature, blogs, etc.). A big part of the courses include video fails (mainly from YouTube) embedded in the learning activities. Video lectures, Power Point, Prezi and Slide Share presentations are also used. One-on-one learning activities are given a priority of use. The e-learning environment has some important administrative functions, such as: permanent assessment and final exam information, marks registration, deadlines for learning tasks completion.
Follow-up (FUP) 5	The main learning activities are in face-to-face format. Courses took place predominantly with full-time students. The online learning environment serves to assist the learning, completion of some of the learning tasks, environment for development of group activities, e.g. course projects. In addition, it functions as an archive for core and additional information sources, necessary for ensuring a quality learning process. The environment has administrative functions, such as: exams information, course projects live presentation schedule during the in-person classes, publishing the final marks from written examinations, continuous assessment, etc.

Face-to-Face Events (FFE) 8	Courses took place predominantly with part-time students. Almost all main activities took place in the MOODLE with a highly restricted number of in-person events. There was a balanced use of individual and group activities with a prevalence of the group ones. The courses in the survey make a difference with their richness of available resources – text files ((PDF and WORD documents), video films, and web links. Video guidebooks are included whose main purpose is to facilitate the students' work with new software necessary for the learning tasks completion.

The students' opinions and attitudes from the three online courses are studied through the methods of descriptive statistics referring to the quality of different significant elements of the online learning design – e-learning materials, online support and communication and online assessment in contrast with face-to-face learning.

QUALITY OF INFORMATION PROVISION

The issue of information provision in e-learning is of utmost importance for online learners. The pilot courses we have analysed contain varied electronic resources (lectures, presentations, video films, video tutorials, external resources, e.g. web pages, etc.). As far as working with online resources in the different type of blended courses should differ in terms of importance for the students, what mattered to us was to establish if their attitude to the course quality differed as well according to the type of course design. The questions in the opinion poll referring to the quality of electronic resources cover parameters such as: suitability of the online resources for online study, comprensiveness, contents, interactivity and multimedia presentation of the study content, etc.

It is our supposition that students from FFE course type will be most dependent on resource provision for their studies as far as they spend a substantial part of the course in an online environment and have the least number of in-person taught sessions. Therefore, they should be the most critical to the quality of the e-content and the ways it is structured and presented.

According to the collected data most of the students express an opinion that the courses provide the whole information necessary for distance learning with the FFE category exhibiting the highest percentage – 65.78%. Only 4.70% of the respondents consider the information insufficient for an effective online learning. Logically, lower results in this respect are exhibited by OAS course-type students - 54,11%, where the in-person study sessions prevail. (Fig. 1)

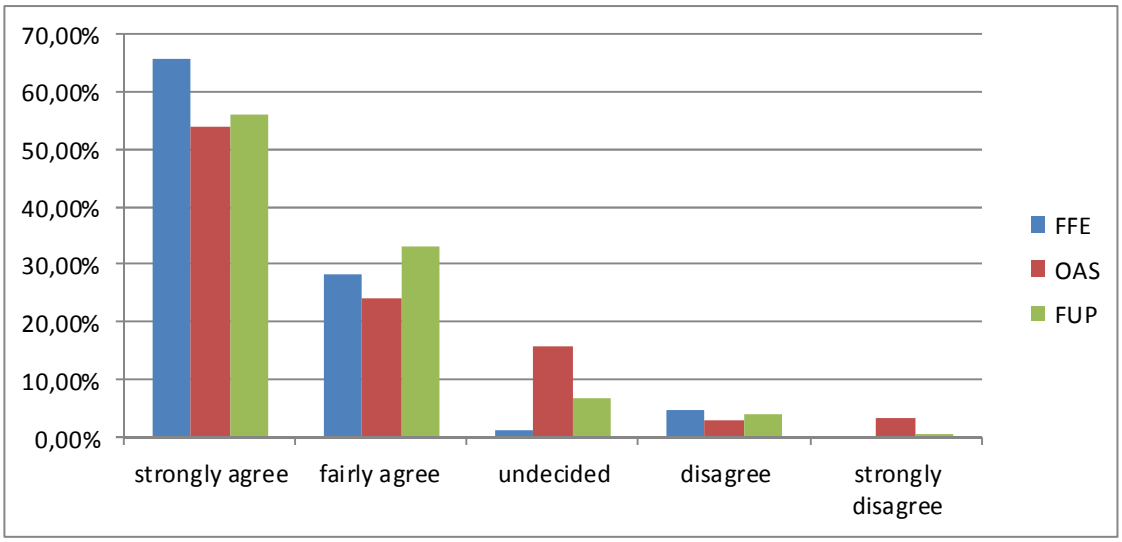

Fig.1 An opinion poll chart on the responses to the statement: 'The course provides to the students the whole information necessary for learning from a distance.'

The majority of the respondents consider the course study resources to be suitable for online learning while again the largest percentage - approximately 80% comes from the students in the pilot test courses in the FFE category; significantly lower is the percentage from the OAS category – 57.05%. For the FUP course type the highest mark on the relevancy of resources was given by 69.08%. It is noteworthy that more than 90% of the students altogether give a high and a very high mark on this criterion for all types of courses. This trend remains stable with regard to the other elements of the electronic courses quality subject to this survey.

Similar data results are obtained from the answer to the question on the relevancy of the resources to the educational aims. More than half of all participants in the poll share the opinion that the electronic resources are completely suitable for achieving the pilot courses aims where the FFE category students express again the most definite evaluation on this indicator – 71.38% strongly agree. The lowest percentage belongs to the respondents from the second category OAS – 49.92%. The high marks dominate for the next indicator – interactivity and multimedia presentation of study information. Therefore, the course study materials meet the learners' expectations in terms of multimedia and interactivity (table 2). Students from the FFE course category give the highest mark to this indicator – 72.93.

Table 2

Study materials and electronic resources for self-study are developed and presented through multimedia and interactivity					
Course category	Strongly agree	Fairly agree	Undecided	Disagree	Strongly disagree
FFE	72,93%	19,70%	3,47%	2,60%	1,30%
OAS	49,92%	27,59%	16,27%	4,96%	1,26%
FUP	71,48%	21,45%	4,41%	2,20%	0,46%

It is worth noting the trend according to which students from FFE courses give the highest mark to the included information resources due to the fact that they study online for the greater part of the course and their preparation is to the highest degree dependable on the e-content. The lowest mark along this line is given by OAS students whose major source of information is the tutor in the face-to-face format of study. In conclusion, though statistically insignificant, there are differences in the opinions of students participating in different types of blended courses which are shaped by the degree of significance of the online element in the overall course structure.

QUALITY OF ONLINE COMMUNICATION

The quality of online courses is highly dependent upon feedback quality [5] which students receive from the tutor and their peers in the learning process in terms of its: timeliness, clarity, content richness and opportunities it provides for tracking their own progress during the course.

It is a supposition that most dependent on online support will be the students whose courses are online by priority, i.e. FFE courses and respectively the least will be those from OAS students who have regular study sessions with their tutors. What does the survey data show with reference to the different aspects of feedback? We studied feedback quality in two main directions: tutor-students and student-students.

Pedagogical effectiveness of tutor-students feedback was studied in terms of its characteristics, such as: timeliness, clarity, content, sufficiency and the degree to which it is helpful in tracking students' progress in the course. As is made clear in table 3 more than half of the respondents from all three target groups strongly agree that during the

pilot testing permanent tutor feedback is provided which gives them valuable information about progress made during the course learning activities.

Table 3

Feedback is timely, clear, content-rich and helpful in terms of students' course progress tracking					
Course category	Strongly agree	Fairly agree	undecided	disagree	Strongly disagree
FFE	55,33%	32,03%	6,63%	3,41%	2,60%
OAS	66,00%	25,51%	6,03%	1,77%	0,69%
FUP	65,01%	19,60%	8,81%	4,22%	2,36%

Regarding tutor-student communication quality the majority of the respondents confirm that the tutor provides them with timely and in-depth response to their questions – 69.23% from FUP, 58.59% from FFE and 57.42% from OAS.

The respondents from the FFE category rate highly the opportunity to communicate with their peers in the VLE through different forms for synchronous and asynchronous communication – 73.74% express their strong agreement, whereas students from OAS exhibit a significantly lower degree of agreement along this indicator (as it can be seen from table 4). The students attending OAS courses show the least number of high marks altogether.

Table 4

The course provides various forms of synchronous and asynchronous communication with peers in the VLE					
Course category	Strongly agree	Fairly agree	undecided	disagree	Strongly disagree
FFE	73,74%	19,86%	1,82%	3,28%	1,30%
OAS	56,58%	29,16%	9,11%	3,53%	1,62%
FUP	67,50%	22,09%	5,82%	2,39%	2,20%

ASSESSMENT

One of the elements of online education which is essentially different in a traditional and electronic environment is assessment. This is especially true about the formative assessment which is otherwise hard to apply in auditorium lectures with large groups of students. Overall, the mark students from all 3 types of courses give to the presence of permanent formative assessment in the online education is highly positive. 72.29% from the FUP respondents, 67.73% from the FFE respondents and 64.80% from the OAS respondents express their strong agreement that the assessment methods used are supportive for their learning and are suitable for an online format of learning. The respondents from all 3 course types who disagree are: 0.46% in FFE, 2.78% in OAS and 1.10% in FUP course types (table 5).

Table 5

Assessment is appropriate for online learning					
Course category	Strongly agree	Fairly agree	undecided	disagree	Strongly disagree
FFE	67,73%	28,02%	3,79%	0,46%	0,00%
OAS	64,80%	19,28%	11,74%	2,78%	1,40%
FUP	72,29%	13,47%	10,02%	1,10%	3,12%

CONCLUSIONS

On the basis of the data collected and analysed in this survey the following conclusions can be drawn:

The students' opinions and attitudes towards different elements of the online course design considered as key for learning quality assurance vary, though not to a large degree, according to the ways of blending the traditional and electronic elements. Students from courses which took place predominantly in an online environment rate highest the significance of e-content and e-resources, online communication and assessment in comparison with the students who learned in a face-to-face format.

It is impressive that the majority of the students from all three course types have a large number of positive opinions and attitudes on all elements of online learning. As it was mentioned above in his survey Ulf-D Ehlers [3] reaches a conclusion that learners who have a substantial experience in online learning are able to define specific and detailed requirements about their learning quality and that they can be divided into 4 groups with similar profiles in terms of their quality requirements. The four target groups in this survey differ a lot regarding their claims for tutor support in the process of communication and collaboration, as well as group activities and social contacts in an online course.

Our survey could not distinguish such groups from which follows that in the initial stage of students' inclusion in online learning there is a prevalence of positive evaluation of online learning as a whole in comparison with traditional learning. Maybe at a later stage when they have gained more experience as online learners, they begin to distinguish the elements of the quality of the very electronic learning and form their own approach in its evaluation.

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The paper has been reviewed.