

Measuring Student Attitudes and Motivation as a Result from Web-based Blended Learning

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Abstract: *This study presents the results of a summative course evaluation and is an attempt to measure the student motivation resulting from English for Specific Purposes (ESP) course design. The tool used for gathering data was a questionnaire measuring attitudes and motivation.*

The analysis of the data showed that students find the course interesting, the tasks relatively easy to cope with, and are satisfied with their performance and the gaining from the course. It also became evident that the presented virtual learning environments were not fully used for communication.

Key words: *Motivation, technology-enhanced language learning, web based learning, blended learning, instructional design.*

INTRODUCTION

The analysis of the common trends and features of contemporary educational practices identified through research on the system of Bulgarian higher education [1-5] led to building a model to meet the needs of the language learning in the cited context. The VEHICCLE model (“(for Vocational purposes) Electronically enHanced InterCultural Communicative Language Education”) [6] was applied to a course design for the English for Specific Purposes (ESP) blended learning course at Faculty of Mathematics and Informatics, Sofia University. The aim was to develop students’ of Informatics communicative skills in order to facilitate their study and professional realization. The settings included using a virtual learning environment (Moodle) and the course website, with face-to-face sessions in a computer lab or traditional seminar room.

This paper presents the results of a summative course evaluation to measure student attitudes and motivation for the 2008/2009 academic year. Student motivation is measured through analysing the perceived effectiveness of the course elements (according to the course objectives) with regards to the motivational aspects (free choice, anxiety, etc. [7]).

The tool used to collect data was a web-based questionnaire, based on the free version of Survey Monkey⁴. It consisted of: bio-data questions (sex, age, group, perceived level of English, attendance rate); closed graded questions investigating student attitude towards the course design and measuring student motivation (based on Intrinsic Motivation Inventory (IMI) [8], adapted for the purposes of this study), which used Likert’s scale [9]; open-ended questions; and an open question for free suggestions. The open-ended and open questions are not an issue of this paper due to the limited volume.

STUDENT ATTITUDES AND MOTIVATION

The questionnaire was filled in by 42 of 76 students who completed the course. Bearing in mind that it was presented after the course end, the number of voluntary respondents speaks of a clear desire of the students to express opinion and help to improve the design. Current analysis is based on 41 (n=41) or 39 (n=39) responses (the numbers of complete answers for the different questions). 30 of the students were male and 11 female; age (average) 19.75 years. 59% claimed to have attended more than 7 classes, which makes the majority attended most of the classes.

The first of the graded questions collected data investigating student evaluation of the course environment (Moodle and the course website) (Table 1). The scale is: 1-never; 2-rarely; 3-usually; 4-often; 5-always. It is evident, that students used the site and the environment mainly to get informed about the requirements, to get informed about

⁴ Available at <http://www.surveymonkey.com/>

the classes, and to use the links and other information provided. The other four functions of the course environment have median at 1 or 2, which speaks that most of the answers rated these functions as “rarely used”. Some of the students admit to have seen the other’s work (mean case value at 2.3 and median at 2). Asking questions and discussing in the forums score even lower at average (both at mean value below 2). An impressive half of the students have never used these options. The other half divided into usual (20% each) and rare (21% and 17% respectively) use of these types of communication. 78% of the students never used the environments for non-related to the classes activities.

Table 1. Opinion of the Informatics students in FMI on the VLE for the ESP course

Do you use the VLE (Moodle) and/or the course website for: (please rate from 1 to 5)	MEAN case 1-41	MEDIAN case 1-41	75 th % case	Score 1 (%)	Score 2 (%)	Score 3 (%)	Score 4 (%)	Score 5 (%)
Requirements	3.4	3	4	7.3	12.2	34.2	26.8	19.5
classes	2.8	3	4	22	24.4	19.5	19.5	14.6
Information (links)	2.8	3	4	10	35	25	25	5
To See others’ work	2.3	2	3	31.7	24.4	26.8	12.1	5
To ask	1.8	1	3	56.1	17.1	22	2.4	2.4
To discuss	1.95	2	3	48.8	22	19.5	5	5
Not related to classes	1.3	1	1	78	14.6	5	2.4	0

It can be concluded that both the VLE and the website were not used up to their limits. One reason for this can be the lack of experience for using such environments for study, as the students are not acquainted with web-based learning (being in the first year of study). Another reason could be the lack of adequate information and instructions about the environments themselves, and the services and activities they support.

The second question used the same scale to rate whether the students consider “these classes (without a course book, with computers, in a VLE) compared to the traditional classes” as: more interesting/ more useful/ easier to cope with. Table 2 shows, that all three aspects were rated above the neutral point, which is a stable and positive attitude. The table also shows that the interest scores the highest, next is the ease, then comes the usefulness. The two additional answers to the open part of the question prove, that the students find this course setting as “more fun, improving the attendance” and “one can decide on oneself when and how to learn”. These answers add to the free choice and enjoyment, discussed later.

Table 2. Comparison between web-based and traditional classes

In comparison to the traditional classes these are: (please rate from 1 to 5)	MEAN case 1-41	MEDI AN case	75% case	Score 1 (%)	Score 2 (%)	Score 3 (%)	Score 4 (%)	Score 5 (%)
More interesting	3.7	4	5	7.3	5	25	32.7	30
More useful	3.4	3	4	7.3	5	41.5	29.2	17
Easier to cope with	3.6	4	5	7.3	7.3	31.7	24.4	29.3

Next question deals with the indicative content: table 3 shows student opinion on the extent to which the course helped them improve their knowledge on six items. The scale used is: 1- hasn’t helped; 2-helped a little; 3-helped; 4-helped much; 5-helped very much. The general opinion is that the course helped the most to know about academic writing: mean value at 3.6, and median at 4. Next come the terminology and

the presentation skills, both of which have a median at 3 (helped) and mean case at about the same value; also about 1/5 of the students have rated them at 5. 30% declared that the course hasn't helped them develop searching for information skills, which brings the mean case at 2 for this aspect. It is evident from the mean values of the general vocabulary, that the respondents feel it improved a little by the course (mean at 2.3, and 44% responses at 2). The grammar aspect has the lowest scores with 44% at 1; mean at 1.8, and median at 1.5. It is seen that the focus of the indicative content (academic writing and presenting) has been acknowledged, studying terminology is stable at the neutral point (45% at 3), while the other aspects are perceived as complementary rather than main.

Table 3. Opinion of the Informatics students in FMI on the course indicative content

To what extent has the course helped you improve these aspects of your knowledge of English? (rate from 1 to 5)	MEAN case 1-41	MEDIA N case 1-41	75% case	Score 1 (%)	Score 2 (%)	Score 3 (%)	Score 4 (%)	Score 5 (%)
Grammar	1.8	2	2	43.9	34.2	19.5	2.4	0
Vocabulary (general)	2.3	2	3	17.1	43.9	31.7	7.3	0
Vocabulary (terminology)	2.8	3	3	12.5	20	45	20	2.5
Academic writing	3.6	4	4	4.9	12.2	24.4	39	19.5
Presentation skills	3.1	3	4	9.8	24.4	29.3	19.5	17.1
Searching for information	2.4	2	3	29.3	24.4	29.3	9.8	7.3

Table 4. Opinion of the Informatics students in FMI on the course goals

To what extent did the course help you improve these skills? (rate from 1 to 5)	MEAN case 1-41	MEDIAN case 1-41	75% case
Writing a summary	2.95	3	4
Academic text writing	3.34	3	4
Information evaluation	3	3	4
Speaking – dialogue presentation	2.8	3	3
Working in a VLE	2.7	3	3
Speaking – monologue presentation	2.5	3	3
Speaking discussion	2.5	3	3
Team working	2.5	3	3
Searching for information	2.4	2	3
Reading comprehension	2.3	2	3
Listening comprehension	2.3	3	3
Writing a comment	2	2	3

The question about skill development (table 4) was used to provide additional information on the perceived achievement of the course goals (12 aspects), based on the same scale as above. Similar to the previous question, the highest mean value was reached by academic writing (3.34), summarizing (3), and information retrieval and evaluation (3). The lowest mean values were for "comment writing" (2), and reading comprehension (median at 2, mean 2.3). The other aspects (listening comprehension, speaking - discussion, speaking – dialogue, speaking – monologue, team working, working in a VLE, searching for information) have a median at 3, which proves that the course has provided relatively good opportunities for achieving all the academic skills desired. Presenting (monologue and dialogue), and working in a VLE have mean values above 2.5: 2.6, 2.7 and 2.8 respectively, which supports the priorities set before the course.

The next question investigated student motivation (table 5); it contained 6 categories, providing data on enjoyment/ interest (sub-questions I1-I6), perceived competence (C1-C6), effort/ importance (E1-E8), pressure/ tension (P1-P5), perceived choice (Ch1-Ch5), value/ usefulness (V1-V6). The scale used is a 7-grade one (1-not true at all; 7-very true). The sub-questions appeared randomly, and these marked with an asterisk (*) were worded as a negation (the scores they receive are therefore taken as a reverse value). 39 complete answers were elicited (n=39).

Table 5. Motivation of the students: interest and perceived competence

Please rate (from 1 to 7) to what extent the statements are true for you bearing in mind the ESP course	Interest1: making a presentation	(I2) Others' presentation *	(I3) Assignment writing	While working on the assignment I was thinking it was interesting	(I5) Discussing in the forums	(I6) The course as a whole	Competence 1: my presentation was better than average	(C2) I am good at presenting	After working on the assignment I felt competent (C3)	(C4) I am good at acad. writing	(C5) I did well at discussions	(C6) I am satisfied with my achievements
MEAN case 1-39	4	4.6	4.5	3.7	3.6	4.2	4.5	3.9	4.3	4.1	4.1	4.9
MEDIAN case	4	4	5	4	4	5	4	4	4	4	4	5
75th% case	5	6	6	5	5	5	6	5	5	6	5	7

The interest expressed through the answers to questions I1-I6 complies with the findings of the previous questions: students find it very interesting to write a presentation (I3), and the course as a whole (I6), both scoring above the neutral point (4) as a mean value and at 5 as a median. Similar is the score of the interest evoked by the other's presentations (mean case at 4.6, median 4, 75% case at 6). The making of the presentation (I1), the process of writing (I4), and the discussions (I5) are stable at about the neutral point, with discussions scoring the lowest (mean case at 3.6). The same table contains the perceived competence values: it is seen that the overall satisfaction with personal performance is stable at the level of 5 for the median and mean cases, and at the extreme 7 for the 75% case. All other sub-questions of this category are slightly above the average point, with own presentation felt at a higher than the average level for most of the students (4.6 mean case), which again shows a good level of perceived competence.

Table 6 presents the effort/ importance sub-questions, and the pressure felt. What can be observed is that preparing the assignment and presenting it (E1) were not difficult, though scoring closer to the neutral point (mean case at 3.5) speaks that they were also not too easy. Lower is only the score of the desire to participate in the forums (E7), with mean and median cases at 3, which supports the conclusions from the previous questions that the environment has not been adequately used for communication. The difficulty of writing academic text (E6) was at the neutral point with a mean at 4.2 and median at 4, which makes it achievable. The ambition to perform well at the assignment is evident through the mean and median cases of 5 for the desire to do well (E3) and the effort put in it (E4); both have a 75% case at 7. However, the energy (E5) scores 4.6 as mean case, which is close to the effort for the presentation (E2) (4.3), as both have a median at 5 it is obvious that the declared ambition was higher than the effort. The pressure (P1-5) results confirm this last observation as all

score below the neutral point for the mean case, and only the anxiety during the presentation was considered at 4 as a median case.

Table 6. Motivation of the students: effort and importance, and pressure

Please rate (from 1 to 7) to what extent the statements are true for you bearing in mind the ESP course (case 1-39)	Effort 1 : preparing and presenting were difficult	(E2) I put a lot of effort in presentation*	I wanted to do well at the assign	I put a lot of effort in writing the assignment* (E4)	(E5) The text took a lot of energy	It was difficult to prepare the text*	(E7) I tried hard to participate in forums*	It was important for me to do well	Pressure 1 : I felt really tense while preparing the presentation*	(P2) I was very anxious while presenting	I felt tense while writing the text	(P4) I felt anxious while discussing	I felt pressure during the classes*
MEAN	3.5	4.3	5	5	4.6	4.2	3	5.2	3.4	3.5	3.2	2.3	3.1
MEDIAN	3	5	5	5	5	4	3	5	3	4	3	2	3
75th%	5	6	7	7	6	6	4	6	5	5	4	4	4

The perceived choice as next motivational aspect (table 7) is stable at 4 (for sub-questions Ch1 and Ch3) for both mean and median case values. However, the answers of Ch2 and Ch4 prove, that students feel that writing the assignment was not their choice; however, it is clear (Ch5) that their perception of choice during the process of writing was strong (mean value at 5.3 and median at 6). The results of the question whether the students would make an assignment again score at the neutral point, which means that however confident they felt about the choices they have, they are not convinced that this is something they will need in their future. Yet, they treasure the skill of writing academic text a lot (V1), mean case at 5.3 and median at 6. Similar are the scores about the information about the course (V5), which can explain the overall positive attitude of the students towards the gaining the course offers. The discussions (V2) and the overall usefulness of the course (V6) score slightly less (mean cases at 4.8 and 4.5 respectively, and median at 5), yet well above the neutral point as well.

Table 7. Motivation of the students: choice and value

Please rate (from 1 to 7) to what extent the statements are true for you bearing in mind the ESP course (case 1-39)	Choice 1 : I wanted to write an assignment	(Ch2) I had to make the assignment	(Ch3) It was my choice to participate in discussions	(Ch4) I had no choice whether to prepare a text and presentation	I had a choice while making the assignment and presentation	Value 1 : making the assignment was good for me	(V2) Discussing was good for me	(V3) I would make an assignment again	(V4) The course met my needs	The information about the course was enough and understandable*	(V6) The course as a whole was very useful
MEAN case	4	4.7	4	4.3	5.3	5.3	4.8	4	4.3	5.2	4.5
MEDIAN case	4	5	4	4	6	6	5	4	4	6	5
75th% case	5	6	5	6	7	6	6	5	5	7	6

CONCLUSIONS AND FUTURE WORK

The results of this study show that students feel all elements of the course (based on VEHICCLE model) satisfactory and interesting, motivating, and not too difficult to deal with. Their satisfaction with their performance was high, and the feeling that they achieved the goals of the course is stable, with these goals perceived as a gain for their development. The feeling that the course is good, interesting and useful, however, is in slight disagreement with one of the course objectives: to initiate and facilitate communication through the environments. A conclusion could be made that more detailed instructions as to how the environments function is needed so to ensure higher gaining from the web-based facilities of the course VLE and site.

Additional work is to be done on the answers receive through the open question and the open-ended ones, which may provide a chance for better understanding the students' opinion and gather suggestions for further improvements in the course design.

As it was mentioned earlier, this paper discussed the evaluation of the course based on the answers of students who completed the course. In order to provide more detailed information and proof of the motivational value of the course further analysis of the comparison between the answers of the different categories of students (these who completed the course and these who didn't) is needed. To this end additional research should be conducted.

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