

Experience in a Blended Learning Course – A Case Study

Blanka Klimova^(✉)

University of Hradec Kralove,
Rokitanskeho 62, 500 03 Hradec Kralove, Czech Republic
blanka.klimova@uhk.cz

Abstract. Owing to the expansion of information and communication technologies (ICT), both teaching and learning have tremendously changed in the past two decades. The most suitable and popular teaching methodology nowadays seems to be blended learning. The purpose of this article is to reflect on the benefits and limitations of the blended learning approach in one of the blended courses run by the Faculty of Informatics and Management in Hradec Kralove, Czech Republic. Moreover, the author of this article emphasizes the importance of the teacher's/tutor's role in blended courses and provides a few suggestions for the improvement of blended learning in practice.

Keywords: Blended learning · e-Learning course · Course tools · Effectiveness

1 Introduction

Owing to the expansion of information and communication technologies (ICT), both teaching and learning have tremendously changed in the past two decades. At present teaching focuses on the student; it is the so-called student-centered learning in which student must be active in solving real-life tasks and responsible, i.e., aware of his/her learning. S/he must also critically reflect on the acquired knowledge and skills. In addition, student's learning is context-aware, which means that student's knowledge is built on his/her existing knowledge. Furthermore, learning is perceived as a social process in which students cooperate and collaborate with their peers [1]. The most suitable methodology to meet such a kind of learning seems to be blended learning (BL).

Currently, BL is a well-established and popular methodology worldwide. This can be demonstrated by the rise of articles published on this topic in ScienceDirect between the period of 2000–2015 [2].

Although there are many different definition of BL (cf. [3–7]), the most common defines BL as a combination of traditional, face-to-face teaching and online learning [8, 9]. Allen and Seaman [10] add that in blended courses 30–79% of content is delivered online. Based on literature search, the benefits of blended learning can be summarized as follows:

- it promotes personalized learning (i.e., it is tailored-made, adaptable to students' needs) [11];
- it encourages students' intrinsic motivation [1];

- it provides flexibility both for students and teachers in terms of planning, preparation, modification of materials, pace, place of learning, and timing [12, 13];
- it offers focused and constant feedback [14];
- it enables to expand, practice and revise students' knowledge and skills [15];
- it promotes students' independent learning [16];
- it encourages creative problem solving [17];
- it provides plenty of models and examples for students [1];
- it helps those who are not able to participate in class due to different reasons such as illness [18];
- it reduces costs on teaching and learning [19].

However, there are also some limitations of this BL approach. BL is quite time-consuming on preparation and management; it might enable procrastination by students if they are not constantly encouraged by their teacher, and thus, it might not be suitable for all students' learning styles [20].

The purpose of this article is to reflect on the benefits and limitations of BL described above in one of the blended courses run at the Faculty of Informatics and Management (FIM) in Hradec Kralove, Czech Republic. Moreover, the author of this article emphasizes the importance of the teacher's/tutor's role in blended courses and provides a few suggestions for the improvement of BL in practice.

2 Methods and Research Questions

The methods used in this article includes a literature search of available sources in the world's acknowledged databases such as Web of Science, Scopus, Springer and Science Direct in order to list the main advantages and disadvantages of BL and emphasize the importance of this topic. In addition, a method of comparison of the available sources was used [21]. To demonstrate the experience in the BL approach, a method of case study was implemented [22]. The benefits and limitations of the BL approach in practice was then based on the analysis of students' performance in the course. Students' performance was analyzed on the basis of evaluation reports generated from the online course and students' self-reflective essays. Furthermore, students' continuous assignments also help to reveal the difficulties students have to face during this course. The author of this study set the following research questions:

- What are the most exploited tools of the e-learning course?
- How effective is the whole blended course?

3 Findings

At FIM, the BL approach is implemented and exploited as well [12, 13, 23]. This is, for example, true for an optional, one semester course on Academic Writing. This course has run by the faculty already for ten years in the course of both semester. It is particularly aimed at the students of the first year, but it is also attended by students of higher classes who go and study abroad. The content of this course consists of six

modules, which are run face-to-face for 90 min and their content is also implemented into the e-learning course on Academic Writing [14].

The modules are as follows:

1. Paragraphing and summarizing
2. Writing an argumentative essay
3. Writing a research article, including bibliography and references I
4. Writing a research article, including bibliography and references II
5. Writing an article for the English version of Wikipedia
6. Writing a self-reflective essay

Each module is then followed by home written assignment, for which students usually have one week at minimum and they submit it online through the e-learning course. Besides the teacher's written feedback, they also get an additional oral feedback in the face-to-face class the following lesson. Altogether students have to write five assignments before the last one – Writing a self-reflective essay is done in class and not included in final evaluation. The topics of the essay varied according to the form of the essay. Thus, the first essay is on a summary of a lecture or a seminar; the second concerns an argumentative essay and students can choose from two topics: Elderly people and mobile technologies or The teacher and ICT; the third essay is on Benefits and limitations of technologies for the teaching of English; the fourth essay focuses on Cognitive decline in dementia and the fifth is Writing an article for Wikipedia on the basis of students' own choice.

In the winter term of 2015, 11 students participated in the course. This number might seem small but correcting their essays every second week which were usually 350–500 words long on average imposes a significant burden on their teacher/tutor. Out of these 11 students, two were male students and nine were female students. In the end only ten students completed the course. The reason was the topic of the fourth essay on Cognitive decline and dementia which most of the students found difficult because it was not related to their field of study as in other cases. This was also confirmed by students in their self-reflective essays. The easiest was probably Assignment 1, which was only 1–2 paragraphs without writing any bibliography and Assignment 5 on which students work in pairs and they thoroughly enjoyed it although they had to use also their computer skills in order to edit and upload it into the English version of Wikipedia according to their requirements.

The worst grades were given for Assignment 3, in which students were learning how to write bibliography and references. These skills were new for students, and thus, they made mistakes. The most exploited items in the e-learning course were mainly content areas; my grades since students monitored their progress in writing essays; tools such as email or calendar, and announcements, which made students aware of some important changes in the course. They are illustrated in Fig. 1 below.

Since most of the students' activity was in the content areas, Fig. 2 below then specifies these areas which include three main fields: information about the course, assignments, and learning modules.

Furthermore, from the students' learning point of view, it is also important to notice the days and time students were spending on their studies. As Fig. 3 below indicates, most of the time on studying and uploading their assignments in the e-learning course

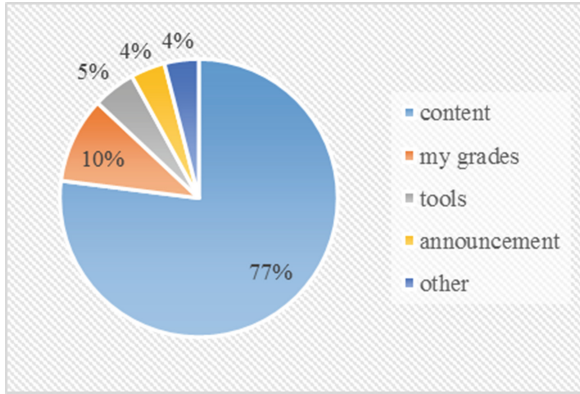


Fig. 1. Students' activity in the e-learning course, author's own processing based on the data from the e-learning course

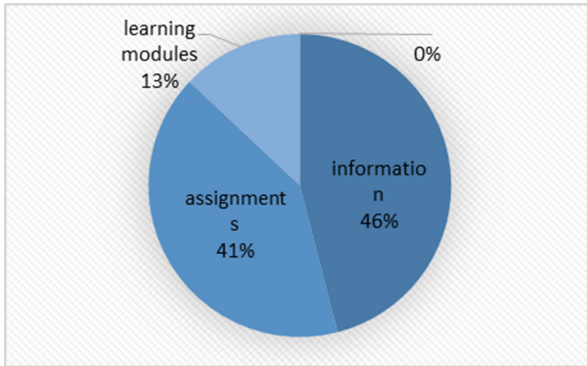


Fig. 2. Students' activity in the content areas, author's own processing based on the data from the e-learning course

was spent on Mondays and Tuesdays. The reason is that Tuesdays were the days of submitting their assignments and also the days of contact classes.

In addition, Fig. 4 below then shows that students were mostly active in the e-learning course between 12 and 1 in the afternoon and then 5 and 10 in the evening.

The author also looked at the number of student's hits in the e-learning course and compare it with their results on the assignments in order to discover any correlation between their study achievements and learning (Fig. 5). The average student's achievement was 398 points and the average number of student's hits was 78.

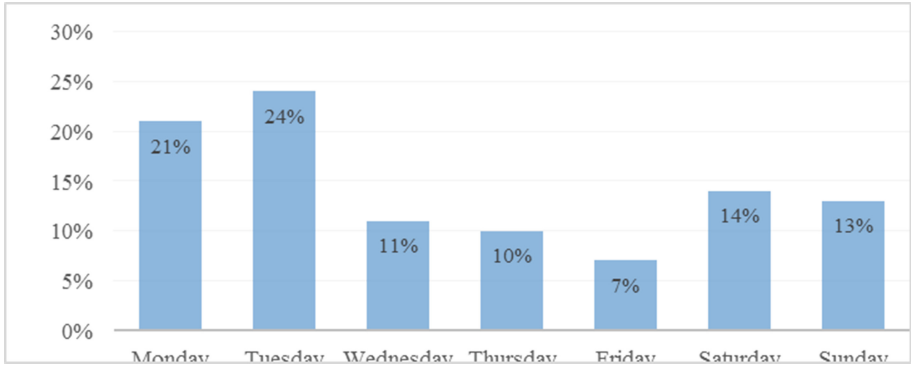


Fig. 3. Days of students’ activity in the e-learning course, author’s own processing based on the data from the e-learning course

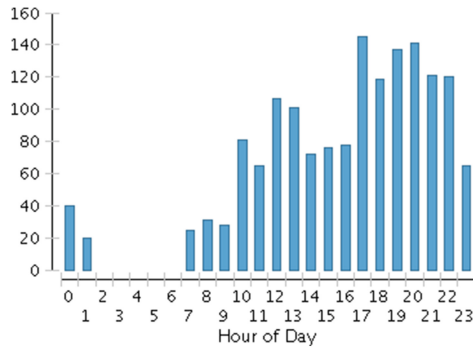


Fig. 4. Period of students’ activity in the e-learning course per day [24]

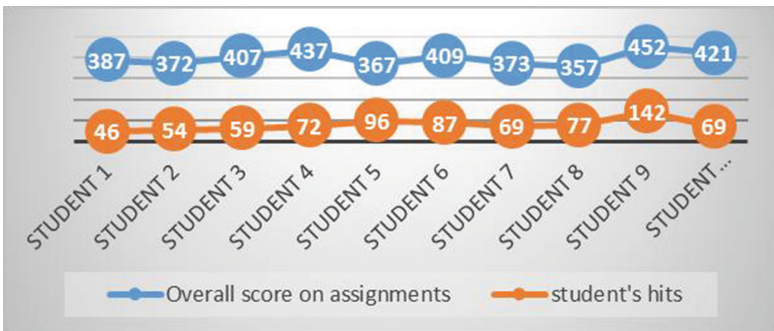


Fig. 5. Correlation between students’ study achievements and students’ hits in the e-learning course, author’s own processing based on the data from the e-learning course

4 Discussion

The findings show that the most exploited tool in the e-learning course is the content areas. The reason is that it provides information on the course structure and subject matter of the course. It also gives more examples on the knowledge discussed during the face-to-face classes. Students also access the assignments of tasks which they have to do. Furthermore, students who cannot be present during the contact classes for various reasons can access the information in the e-learning course at home. In this way they also do not miss the deadline of their compulsory assignments. In addition, the findings reveal that students mainly learn and work when the deadline of their assignment is approaching. For example, student 10 confessed in his/her essay, s/he had had to persuade herself/himself to write the essay in the chosen time. The time period of their learning, however, indicates that students prefer to study between five and ten in the evening, i.e., when they finish their daily activities, calm down and have a more extended period for their academic work.

The correlation of students' study achievements and their hits in the e-learning course show the match only in two cases (Fig. 5), which means that students should study more and more systematically and intensively. Moreover, one drop out in the course indicates that more attention should focus on the encouragement of students' learning and a better choice of essay topics which should be more related to their field of study.

In addition, the teacher/tutor should run a discussion forum to enable students to express their opinions and share their learning difficulties in the learning process. Overall, it seems that the blended learning approach in this course is not effective enough, which contradicts with the research in this area (cf. [25]). The reason is that it focuses more on content delivery and less on social and relational aspects. Therefore more effort should be spent next years on promoting collaboration among students. The teacher/tutor must also attempt to deliver the course as effectively as possible: s/he has to prepare and be ready to modify the materials at any time according to students' learning needs [26]; s/he has to provide students with explicit and clear instructions and a study guide for the e-learning course; s/he has to constantly encourage students to achieve their learning objectives and thus, to promote their intrinsic motivation for self-directed learning; s/he has to provide a focused and almost immediate feedback on their performance; s/he has to offer and provide consultations for students at any time they have difficulties in learning in order to avoid potential learning conflicts and a consequent drop out; s/he has to promote co-operation and collaboration; and s/he has to nurture connections between fields, ideas, or concepts (cf. [27]).

5 Conclusion

In conclusion, the blended learning approach definitely brings many benefits such as personalized and independent learning, provides students with a lot of learning materials and examples, or enables flexibility. However, as the case study has shown, it must be implemented purposefully, consistently and systematically. In addition, the teacher has to focus on social aspects of this course and stimulate students to

collaborate more. In fact, it is the teacher/tutor who is particularly responsible for the whole success of the course delivery and its methodology because as Sorden [7] states, blended learning is a combination of training methodologies, which uses the best delivery method for the successful achievement of the learning objective.

Acknowledgments. This work is supported by Excellence project 2016 and IGU project 2016 run at the Faculty of Informatics and Management in Hradec Kralove.

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