Pedagogical challenges in online synchronous lectures in Early Childhood Education

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Abstract

Blended learning courses using a combination of online synchronous and on-campus teaching is presenting an opportunity for access to higher education for adult students in rural areas. NLA University College (NLA) and Sogn & Fjordane University College (SFUC) have for the last five years offered teacher training programs using a blended learning model in order to meet needs for more flexible education (1). We believe that fostering a good relationship between students and teachers is important to improve the learning experience in an online environment. We have also investigated how students take part in the academic discussions online. We have used both quantitative and qualitative studies of students in a four year Part Time Early Childhood Education [Part Time ECE] at SFUC and have found that the students are very satisfied with the combination of on-campus and online synchronous teaching activities. How they experience the different parts of the education and how they understand the relationship between student and teacher and online academic discussions are discussed in this paper.

1. Introduction

In 2013, a model of Blended Learning (BL) was instituted in Part Time Early Childhood Education [Part Time ECE] at SFUC. Our design of BL is a combination of on-campus teaching and synchronous online teaching using the web conferencing software Adobe Connect (AC).

The different aims of our part-time BL courses are a combination of increasing students' activity outside the face-to-face classroom, a more learning focused education and the need to meet students' needs. Keywords such as flexibility, new student active teaching methods and closer follow-up of the students were emphasised in the Quality Reform of Higher Education from 2001 [2]. The pedagogical methods used in online teaching shall assure that the students are active, cooperate, use and share experience and get feedback [3, p.8].

A renewed focus on quality of instruction, student engagement and retention has followed the "anytime, anywhere" nature of online teaching [4]. How students take part in academic discussions and their relationship to their teachers are also important aspects in the students learning process [5]. Online teaching also requires new skills, described by Gilly Salomon in a five-stage model to achieve eModerator skills [6, p. 32]. When these skills are achieved, we can facilitate the focus on pedagogical aspects in the online part of the education. This article discusses findings on how students in four classes of Part Time ECE perceive the course, the student-teacher relationship and the academic discussions in the online learning context.

2. Methodology

We carried out an evaluation study using an online questionnaire among the total population of students. 34 students are in their first year of education, 31 in their third year (N=65, response rate 69 %). The questionnaire contains 55 questions, most of which were statements where the students have indicated their degree of approval in a five point Likert scale from 'not suitable/ poor' (1) to 'suitable/good' [5].

It was important to ensure that the students understood the questions, and that the questionnaire did not contain any ambiguities. To get a reliable and valid instrument, we therefore presented and discussed the questions with colleagues. We have made a consistency analysis of some of the questions to validate the answers. Correlation analyses on similar questions have revealed significant correlation that indicates that the students have read, understood and answered the questions consciously, see Figure 1.

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Correlations

		We have too much online teaching and not enough on-campus teaching	Important element for Learning outcome: Online synchronous lessons
There should have been more on-campus teaching	Pearson Correlation	,620**	
	Sig. (2-tailed)	,000	
	N	64	
Online synchronous lessons has given me great academic Learning outcome	Pearson Correlation		,648**
	Sig. (2-tailed)		,000
	N		65

**. Correlation is significant at the 0.01 level (2-tailed).

Figure 1

95 % of the students agree on the statement *The quality of the study is good* (M=4,63, Std.d. = ,587). Furthermore, they evaluate on-campus higher than synchronous online lectures. The Mean Difference between the two forms of lectures is 0,734, and the difference is significant. Earlier studies conducted on five classes of Part Time Teacher Training Program [7] also reveals a significant Mean Difference of 0,887.

To get a better understanding of why the students over time are less satisfied with the online lectures, this study has worked with the hypotheses that the quality of the communication and the relations to the teacher is different in the two types of lectures. To explore this, we conducted two semi-structured group interviews online in Adobe Connect. Our overarching questions were: a) How do students experience learning support in online lessons? and b) How do they take part in the academic discussions in these lessons?

We recruited participants for two group interviews in online sessions by asking random students to participate. Four students from the third year and three in the first year took part. The interviews were live-recorded in Adobe Connect and transcribed. We had some audio issues in one of the interviews, but managed to write down most of the discussions. One of the researchers made the transcription and the other watched the capture while following the transcription to ensure data reliability.

The quantitative data were analysed in SPSS using descriptive methods, while group interview data were analysed using thematic analysis.

3. Theoretical backdrop

Giesbers et.al. [8] emphasise the importance of supporting the learners in an early stage of the course. In an online learning environment, the supportive teacher is crucial to the student's motivation for the study. "… the learning environment and learning process should provide sufficient structure and autonomy support (e.g. via scaffolding) to enhance engagement of all learners" [8, p. 32]. The argument presented in their study also accentuate that the use of synchronous and asynchronous technology offers several beneficial results towards different pedagogical aims. "Synchronous communication tools such as web-videoconferencing allow for more direct correction of misconceptions, and may lead to higher levels of learner engagement". They find positive effects of synchronous communication on group relations and emphasise that synchronous communication can prevent misinterpretations that often occurs in online, asynchronous communication [8, s. 31].

Wegerif has studied the student engagement in online dialogues and emphasises the need for a strong shared framework to make the participants productive. He has "found very clearly that productive critical challenges require a strong shared framework or they quickly turn into unproductive disputation" [9, p. 274].

The online environment has a different dynamic than a classroom. To make the students more comfortable in contributing in the online environment, online dialogue has to be understood as an extension of the learning environment established on campus. Wegerif emphasises that to establish productive online dialogues, "...they require a shared framework of expectations within which the participants trust that their challenge will be interpreted constructively" [9, p. 275].

4. Finding and discussions

Other studies have revealed that supporting relations between the teacher and student is important in online learning courses (8). Informants in our study express unambiguously that it is important that the teacher invests in establishing good relationships when students and faculty are gathered on campus. The informants are more sceptical to building relationships online using Adobe Connect. One of them says; "I don´t believe that we would have had much contact with our teachers if we only met on the Internet". Another one says, "It is very important to have the gathering on campus to establish good

relations to the teachers, where we can discuss with each other, work in groups etc. All these experiences will make us more comfortable when we write on AC, we know the student group better".

Two of our informants has participated in earlier flexible student program and express much more satisfaction with this BL model. One of them has experience with an ECT program 11 years ago which she did not complete. She points out several improvements in this new BL program; better learning support, more pressure on the student and better contact with the teachers. She describes her experiences as follows: "Then we did not have any online lessons like we have today. I feel that we have a completely different learning outcome with the online teaching. You get a higher pressure to read and keep up to date. And you get much better contact with teachers." Both of the students confirm that a large part of the improvement is due to technology.

We interpret these informants' reflections as expression for important components in a good learning environment, both good relationship between the learner and the teacher, and how synchronous technology fulfils a need of regular meetings to support the process of learning.

The teachers in Part Time ECE mostly uses the Chat Function in Adobe Connect to communicate with the students during the online synchronous lessons. The students can ask questions to the teacher, they can answer questions and discuss with each other during the online lesson. Both teachers and students have expressed that they find the Chat function very useful. In our group interviews, we wanted to find out if the Chat was also useful for an academic discussion.

The informants in our study expresses various experiences of participating in a academic discussion in the synchronous Chat. One of them describes, "I found it easier to write in the Chat program than talk in front of the whole class". Another informants says "We observe that there are other students in the academic discussion on the Chat than in the class-room". These sayings support our understanding that a BL approach with a combination of online Chat and on-campus activities, increase the engagement of the students. This is supported by the finding from Wegerif [9, p. 275].

Other informants express limitations using the Chat, "the communication (the author: in the classroom) is different, you get forward more views..., when you write, there may be misunderstandings because of lack of body language". Another one emphasises that there are "more students who participate with their views in the classroom discussions". We can see that students have different experiences of their participation in the online Chat.

One informant expresses a development of better quality in learning activities in AC over time. He says "My experience is that what we have done in Adobe Connect, especially the last two years, have worked out better than expected... The first year was a bit more back and forth where they tried and failed a bit". The teachers should emphasise knowledge about how to teach in a technology rich online environment, develop what Gilly Salomon [6] call e-moderation skills. It requires both pedagogical development and technological insights to handle the learning situation. The teacher has to do pedagogical considerations on which academic discussions are suited to carry out online and which are best suited in the classroom.

5. Conclusions

This study has revealed how this blended learning model has made it possible to offer a flexible and learner-oriented education. The students express satisfaction with the combination of on-campus and online synchronous teaching activities. Several of the informants value the on-campus lessons as important to increase the potential in online dialogues. Additionally, they do emphasise the need for good structure in the online synchronous Chat to make the dialogues more beneficial. The students are convinced that on-campus meetings in order to build relations and establish confidence are important for the academic outcome of the online teaching activities.

Other studies [9] confirm what our informants say about the importance of context and a good framework to make the online dialogues a contribution to learning. Additionally, our study uncovers the need for teachers with good e-moderating skills [6] and a stronger pedagogical philosophy about working methods in synchronous online environments.

We are aware that this study is limited to our students and our context, but we would argue that knowledge from the core concepts is valuable. We believe that our findings can contribute in developing similar courses in a world of change in technology, need for better and more efficient education and to meet students' increasing requirement for anytime – anywhere education.

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