Virtual Class Management

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Abstract. The COVID-19 outbreak locked down the university classrooms and transferred the teaching and learning activities to a virtual space. This paper discusses the challenges the teachers faced due to this dramatic transfer from habitual classrooms to virtual on-line classes. This small-scale empirical research focuses on two research questions: Which challenges and problems did the teachers face, which solutions did they find to overcome them? The study also investigates the techniques of synchronous on-line classes management employed by the teachers after the COVID-19 restrictions were imposed on traditional delivery modes in higher education. The data were collected through semi-structured interviews with 10 university teaching staff members who commenced giving online classes in March 2020. The research findings revealed that the main challenge for teachers was to find a learning platform providing videoconferencing tools, and the solutions were found basically through asking their colleagues for advice. The findings also identified one of the teachers' concerns related to handling students' misbehaviour during on-line classes, and a general need in developing teachers' virtual class management skills.

1 Introduction

The outbreak of COVID-19 had a huge impact on the activities of many organizations, each seeking particular ways to continue their functions in the situation of lock downs. In Russia, the higher education institutions since March 16, 2020 started delivering classes on-line, following the time-table of all the classes as it had been planned for the Spring semester of 2020.

Distance teaching and learning may be implemented in 3 modes of on-line delivery: an asynchronous off-line mode (different time, different place [1]), a synchronous on-line mode (same time, different place [1]), and a blended mode combining both asynchronous and synchronous ones. During the past decade the majority of Russian universities started using the learning platform Moodle for supporting face-to-face classes with off-line web-based learning activities (this combination is conventionally regarded as blended learning [2], while synchronous on-line classes were not on the agenda. The lock down of university classrooms pushed into being a new kind of blended learning – a combination of on-line and off-line web-based synchronous and asynchronous education. As a result, the teaching and learning activities went through a dramatic transfer from habitual classrooms to virtual on-line classes.

Which challenges and problems did the teachers face, which solutions did they find to overcome them? These are the research questions of a small-scale research investigating the ways of synchronous on-line classes management employed by the teachers after the COVID-19 restrictions were imposed on traditional face-to-face delivery mode in higher education.

The paper starts with the analysis of the definitions of classroom and lesson management in face-to-face education, aiming to find correspondence to virtual class management areas. The analysis is followed by an empirical qualitative research description and its findings' analysis. The data were collected through semi-structured interviews with 10 university teaching staff members who commenced giving on-line classes in March 2020. The research was also intended to pilot the interview questions for conducting a further large scale research.

2 Classroom and Lesson Management. Literature review

There are two technical terms in education which definitions seem to be overlapping and need to be clarified: classroom management and lesson management.

Richards and Schmidt give the following definition of classroom management: "the ways in which student behaviour, movement, interaction, etc., during a class is organized and controlled by the teacher (or sometimes by the learners themselves) to enable teaching to take place most effectively. Classroom management includes procedures for grouping students for different types of classroom activities, use of lesson plans, handling of equipment, aids, etc., and the direction and management of student behaviour and activity" [3].

Gorman and Norris defining the term lesson management emphasize that "managing the lesson is not only about classroom management, such as how you use the classroom space by moving the chairs and tables, putting learners into different groups or using classroom equipment" [4], which means that these scholars suggest that the term lesson management has a wider meaning than the term classroom management which involves only managing the classroom space. What else does lesson management involve besides managing the space? According to Gorman and Norris, it is "also about giving clear instructions to set up activities and about how you check that learners have understood. It includes how you manage learner behaviour and how you respond to what's happening in the classroom by making small changes to your lesson plans, too. Finally, it's about thinking about those decisions after the lesson and using that experience to improve ideas and techniques for future lessons" [4].

Comparing both definitions, it is obvious that they basically overlap, that classroom management does not include exclusively the management of classroom environment, but also such areas as learning, interactions, lesson plan, etc., except for one category mentioned in the second definition: that of reflection on the lesson conducted and on the changes introduced to it and applying the previous lesson experience to planning further lessons.

Although it seems that the term lesson management has a wider meaning compared to that of classroom management, it should be pointed out that not all scholars are likely to share this opinion.

For instance, Scrivener regards such classroom management techniques as establishing and maintaining rapport, ways of listening, and giving instructions [5]. Moreover, Coetzee et al. introduce a most comprehensive approach to classroom management. They argue that it performs the following functions: planning, organizing, leadership and control. According to them, classroom management refers also to creating a positive classroom atmosphere, maintaining discipline, managing learner participation [6]. This approach

makes it reasonable to regard classroom management as a comprehensive terms enhancing planning, organizing, leading and controlling everything that happens during a lesson and not to differentiate classroom and lesson management.

This approach involves a wide range of areas of management during a lesson which are closely interrelated and which may be grouped under several categories. For the current study the following categories may be suggested:

- managing the classroom space (or classroom environment with its physical objects - desks, chairs, equipment, etc.) for different kinds of learning activities and interactions;

- managing the communication and interactions (for example, teacher - students, teacher - individual student, students in pairs, students in small groups, etc.);

- managing students' behaviour (or rather, misbehaviour), maintaining discipline, and also attention to the lesson (or rather, handling inattentiveness);

- managing the learning process which was preliminary planned, but needs to be modified and adapted to the current process as a reaction to the students' actual performance, learning activities, pace (for instance, if some assignments or discussions take more time than it was planned) and other the students' needs identified during the class.

What happens when classes are conducted in virtual classrooms? Are the categories pointed out above still relevant? What does the management of on-line classes imply? To answer these questions, let us look at the categories of classroom management again and point out the differences.

Managing the classroom space. In virtual classes there are actually no classrooms and there is no classroom space in the usual sense. However, there is a working place of the teacher which includes a computer which in fact provides the teacher with class management tools. Using these tools, the teacher can design how his/her working place is viewed by students by selecting an appropriate screen background. This background may also be used for demonstrating various visuals. In this way the teacher practically manages not the classroom space, but the students' monitor space.

Every student is also supposed to have a working place which provides him/her with access to the virtual classroom in which the teacher and the students meet. The virtual classroom is in fact a web-based learning platform with video-conferencing tools. There are several learning platforms at present and the instruments for virtual class management provided by them are basically similar. Most of them enable teachers to share their screen with students and thus to demonstrate Power Point presentations, Word and PDF documents, pictures and photographs, video materials, various materials from Internet, etc. Another important opportunity provided by learning platforms is the opportunity to set up separate rooms for small group discussions. Whether all this wide range of virtual classroom management tools and the corresponding opportunities are employed by the teachers will be found through interviewing them.

Managing the virtual classroom communication and interactions is based on the exploiting the rooms for grouping and regrouping students for discussions, and depends on the fact if the teachers use these rooms. Web-based communication provides opportunities for both oral and written communication through chat. Besides, it is possible for the teachers to control opportunities for students to speak through turning off or on their microphones, and there also may be certain rules as to how the student can show that he/she wants to speak: wave or raise a hand, for example, or write in the chat. Which ways of organizing and controlling virtual class interactions are actually used will be asked in the interviews.

Managing students' behaviour, maintaining discipline, and drawing and preserving students' attention during the virtual class is a new issue in the area of pedagogy. It should be found out what exactly teachers regard as misbehaviour during virtual classes and how exactly they handle it.

Managing the learning process, adapting the lesson plan to the current needs identified during the virtual class, is supposed to be performed in the same way as in the real classroom.

3 Materials and methods

When in March 2020 the universities had to stop urgently the face-to-face education delivery due to the COVID-19 restrictions, the classrooms became empty, as they were substituted by virtual classrooms. Which challenges and problems did the teachers face, which solutions did they find to overcome them when the ways of traditional classroom/lesson management became no longer applicable? These are the research questions of a small-scale research investigating the ways of synchronous on-line classes management employed by the teachers after COVID-19 imposed virtual delivery mode in higher education.

The research conducted to answer the posed research questions is a small-scale empirical qualitative research. The data were collected through semi-structured interviews with 10 university teaching staff members who commenced giving on-line classes in March 2020. The respondents were selected randomly, all of them employed at Herzen State Pedagogical University of Russia (Saint Petersburg); the interviewees work at 6 different university departments, all of them teach courses in various fields of humanities and social sciences. The age of the respondents ranges from 40 to 61. The interviews were held in Russian; they were recorded and then transcribed.

The interview started with the research questions:

1. Which challenges and problems did you face when the teaching was transferred on-line?

2. Which solutions did you find to overcome the problems?

These questions were followed by 8 questions deduced from the above analysis of the virtual class management, namely:

Which virtual learning platform do you use?

Do you use a screen background for the classes?

Do you use a shared screen option during the classes? If yes, what kind of materials do you demonstrate?

Do you allocate students to different rooms for small group discussions?

Do you and your students use chat during virtual classes?

Do you have any special rules for students to show that they want to speak up?

Is there anything that you regard as misbehaviour during a virtual class? If yes, what is it and how you solve this problem?

Do you sometimes have to introduce changes in the lesson plan during the virtual classes? If yes, in which cases?

The teachers were also free to share the opinions and deliberations on any issues concerning virtual teaching/learning.

4 Results

4.1 The challenges and problems

All the interviewees pointed out that the main challenge was that the transfer to virtual teaching was too fast, there was no time to adapt to the new conditions. Even though practically everyone used previously virtual learning environment, Moodle, it was used only for off-line interactions. Besides, although the university had required for several years

that teachers should use Moodle, the teachers did not do it for every course they teach. At the same time, the university did not allow to substitute on-line with off-line studies, and the teachers had to report on a weekly bases that the time-table for classes had been followed, as well as to point out which on-line platform had been used for the classes.

The feeling that you are not prepared for a quick change in your daily professional activities was also mentioned as a challenge.

4.2 The solutions

There was too little or no time to find the right solutions, every teacher admitted that at that time the solution seemed to be the learning platform, and each tried to exploit the one which was more familiar at that point. Thus, the virtual learning platform seemed to everyone to be a solution. Some of the teachers shared the details of their first on-line classes which show why a learning platform with videoconferencing turned to be the best solution.

R1: "At first, as it was recommended by the university, I used chat provided in the Moodle environment, and it was awful, because it does have sound or video, so I had to type what I wanted to say, some students did not wait before I finish typing, and send their own messages which I was not able to read because I was typing, and afterwards it was difficult to find those students' messages, as they already were moved up the screen. All that made me feel nervous and extremely tired. I was happy when during our next class the students said (wrote) that some other teachers used the platform Discord. They told me how to sign up, and I felt happy".

R2: "I started my virtual classes with using WhatsApp. I found it not quite convenient, but much more convenient than using Moodle chat, because in WhatsApp we could use written and sound messages and video connections. At that time WhatsApp seemed to be a solution, but only temporary. Later the colleagues shared their experiences and I first tried Discord, then started using ZOOM."

The next subsection will discuss how and which solution was eventually found and has been still employed by the interviewees.

4.3 The virtual learning platform

The interviewees named 5 platforms used at the current time: 5 of them use ZOOM, 2 of them use Skype, 1 employs Google videos, and one employs Sisco Webex, and one exploits Discord.

This variety of platforms exploited raised follow up questions asking why and how a certain platform was selected. The replies were different and they also demonstrated how this selection was made. For example, those using Skype said that they had used it before for other purposes and that was a decisive factor – to use something you are more familiar with.

On the other hand, the teacher who uses Discord said that it was a new platform for her, but the first one recommended by colleagues, and that is why now it is familiar and seems to be convenient. The teacher using Google also referred to the fact that it was the first experience and still seems convenient. The teacher employing Sisco Webex said that after trying several platforms she did not feel comfortable with any: Skype sometimes did not open, Discord for some reasons had problems with sound or video, and she found it unpredictable; ZOOM can be used for 45 minutes at one session, and then you are cut off and waste time for starting a new session.

At the same time, ZOOM turned out to be used by half of the interviewees, none of them complained about the short term of the sessions, because they pay to provider, but all

of them complained that they have to pay their own money which is, though, later refunded by the university.

4.4 Virtual class management

The responses concerning the ways of virtual class management revealed that some opportunities are not applied at all, some are used only partly, and some are exploited to the full extent.

Nobody, for example, uses the screen background tool which is offered by ZOOM. As a result, the students see the teacher as a 'talking head' sitting in the study, bedroom or kitchen. The interviewees said that they do not know about the background option, or do not know how to use it.

As for the shared screen, it is used by 8 teachers, and they demonstrate the whole range of materials, and they find it even more convenient than using the teaching aids and technologies in the face-to-face classes, as you do not have to worry about the classroom equipment, Internet connection, and if you brought to the class your memory stick. As one of the teachers remarked, you also do not have to make paper copies in case you need them during the class: any kind of material you need may be shown and discussed.

Only 3 teachers said that they use virtual rooms for small group discussions: some do not know how to do it, some do not use small group discussions even in face-to-face classes.

Chat is used predominantly by students when they have a comment or a question.

Four interviewees said that they mute the students' microphones during the class because of the noise that may come from their places, 5 teachers tell the students to mute their microphones when they do not speak up. One teacher said that no instructions had been needed, as all the students turn the microphones off themselves. No one mentioned the rules as to how the students are to show that they want to speak.

The responses concerning students' virtual misbehaviour turned out to be unanimous: all the teachers complained that there are classes when they find themselves talking to the computer screen, as the students do not turn their videos on. To handle this problem, some teachers start demanding to use the video devices, but usually with no result: the students say that their Internet connection is not stable, and if they use video, the connection will fall down, others say that they will do it in a couple of minutes, but never do it. The solution depends on the teacher's patience. Two teachers said if the student does not use a video, they mark this student as absent from class. Other teachers told interesting stories:

R3: "I insisted that one student should turn the video on, and she refused saying that she was at work at the moment. Finally she turned the camera on and I saw that she was really at work, and she works as a shop assistant. Can we call it learning? She joined the class with her camera and microphone off, just to demonstrate that was present, but she never intended to learn!"

R4: "I could not convince the students to use their video cameras, then I said that if they have a problem with Internet or the equipment, they can come to the university, where there are special rooms equipped for students. You just have to write to me stating the problem. And the next day all the cameras were on in that class!"

It should be pointed out that teachers' complaints were very emotional: some smiled as if they were telling jokes, some could not hide their irritation:

R5: "Whenever I ask a question to the whole class or to some students, there is silence. I wonder: maybe I was talking all the lesson to myself… So I keep every now and then asking: Does that make sense? Can you hear me? And there is usually silence for a while, until someone would say Yes."

It was clear that many teachers did not accept and did not believe the students' excuses for not using videos during the classes, as there was a connotation of mistrust in their responses: some teachers suspected that the students with their cameras off were not really participating in the class activities. But some teachers tried to find some justifications or guesses of the reasons for this kind of students' behaviour – maybe they are not dressed appropriately, maybe they are not sitting at the table, but are lying on their sofas which is quite common for them, etc. as they usually do

Another complaint of the teachers is related to the fact that many students during the class use not the computers, but telephones. The reasons the students give are practically the same – the Internet connection of the computer is not as good as the telephone connection. This also raises teachers' concerns, they say that all the content they demonstrate on the screen can not be even seen or read from the telephone screen. In a way, this also demonstrates that the teachers are not able to control the students' behaviour and so far have not found a solution to handle that.

To sum up, there are new forms of misbehaviour in the virtual environment to be handled by teachers.

As for the managing the lesson plan and making some changes, all the teachers said that this problem always exists, there is often a difference between the lesson planned and the lesson actually given, but it is easier to solve the problem in a virtual class: you can easily add and send the students some material, change their home assignment est.

5 Discussion and conclusion

The research findings revealed that the rapid transfer from traditional classes to virtual ones caught the teachers unawares as to how to teach on-line in a synchronous mode. And in this situation the teachers were left to their own resources: they did not get any recommendations or instructions from the administration, they were not provided with a video-conferencing platform. Some teachers had to go through a long way of trying to employ Moodle chats or telephone WhatsApp before they started using video-conferencing. It is remarkable that during summer 2020 the university organised a CPD course for teachers on blending teaching, but the course included topics related to off-line web-based course management in Moodle environment, and did not deal with on-line class management. It should be pointed out that since 2021 the university is planning to exploit an upgraded version of Moodle with MicrosoftTeams for video-conferences.

The research also revealed that the teachers are not familiar with the tools for virtual class management available at virtual learning platforms, and they should be offered CPD courses in this area.

The interviewees spoke emotionally about the students' misbehaviour during virtual classes. Turned off videos and telephones instead of laptops are new kinds of misbehaviour they came across during synchronous classes for which they suggest various solutions. The issues of students' virtual misbehaviour require further research, but eventually there should be found solutions in terms of university requirements or a code of virtual behaviour.

Arguably, the teachers need virtual class management skills not only for the period of lock downs due to pandemic. First of all, these skills are needed for international joint collaboration in education, and for jointly offered international programmes [7, 8, 9]. But the need arises not only in the framework of international education, but also in domestic education; in course deliveries of open universities, for instance.

The research findings show that there are several areas in the virtual class management which need administrative solutions: the variety of virtual learning platforms, the process of

their occasional selection by teachers should be settled by the university administration which is to select an appropriate platform and provide with it every teacher and student.

The research was intended to pilot the interview questions for conducting a further large scale research investigating also the students and university administration views on virtual classroom management.

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