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TEACHERS ATTITUDES TOWARD FLIPPED CLASSROOMS IN UKRAINIAN UNIVERSITIES

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Flipped learning is an approach that can be used by teachers to provide students with direct access to video lectures and other learning material to be viewed outside of class prior to active learning during class time [1]. The use of this approach in educational practices to enhance academic performance in higher education is definitely helpful in countries where traditional education experiences difficulties because of war, such as Ukraine. Already during the COVID-19 pandemic, pedagogical digital competence became a necessity in education. Nowadays, the need of such competence dramatically increased in Ukraine. Damage and of educational facilities in Ukraine resulted in destruction of opportunity to continue education for many students. Additionally, according to the World Bank statistics, in Ukraine, 1 in 7 persons became refugees in 2022. This includes approximately both students and teachers. Another large portion of Ukrainians were displaced internally. The long-term effect could be substantial, as disruptions in education due to war might have persistent negative effects on learning.

A dramatic in technological tools such as interactive videos and educational platforms can facilitate the use of flipped classrooms and other similar approaches. Previous investigations on the flipped classroom demonstrated that students where flipped classroom approach was used, had higher academic achievement and lower stress [2]. Our own previous study demonstrated that the students at high schools were satisfied with video lectures and flipped classroom [3]. In their course evaluations, they expressed appreciation to pre-recorded lectures, the tutor's ability to engage the students in the following up session and suggested that more flipped section will increase their learning and understanding of difficult concepts.

The majority of studies on different pedagogical approaches were focused on student achievements and attitudes. Less is known about the attitudes of tutors. However, in order to perform flipped classrooms of high quality, tutors' knowledge, professionalism and enthusiasm play an essential role. Thus, more studies are needed to investigate tutors' desire and list needed skills to shift from traditional to flipped classrooms.

The aim of the present study was to evaluate the attitudes and existing knowledge about flipped classroom approach at the National University of Life and Environmental Sciences of Ukraine and Poltava State Agrarian University.

In total 48 participants from both universities agreed to participate in the flipped class activities. A pre-recorded lecture on the topic "Flipped class" were distributed to the participants.

The lecture included brief theoretical knowledge on the flipped classroom and short examples. The lectures were recorded at the Swedish University of Agricultural Sciences (SLU), Sweden, by an experienced tutor. The tutor was not previously recorded lectures on pedagogical methods, but recorded lectures in the area of agriculture, animal and food sciences. Instructions for the homework were included in the last part of the pre-recorded lecture but were not provided separately. The participants were not informed about the homework in advance and were supposed to watch a whole video to reach these instructions. The lecture was recorded in English. None of the teachers had a previous experience with flipped classrooms.

After 3 days, the participants were invited to a webinar. During the webinar, the tutor from the Swedish University of Agricultural Sciences provided a summary of the theoretical part with examples from her own university and explained the results of the study, in which high school Ukrainian students participated. The teachers from the National University of Life and Environmental Sciences of Ukraine and Poltava State Agrarian University had opportunities to ask questions and suggest which topics in agriculture can be flipped and which topics cannot be flipped. Then, the advantages and disadvantages of the flipped classroom were discussed in smaller groups followed by a summary in the whole group.

Finally, the participants were invited to participate in a role-playing game, where one of the participants (playing a highly experienced professor) was against flipped class and another participant (playing a young enthusiastic teacher) was pro flipped class. The aim of this game was to further summarize the advantages and disadvantages of the flipped classroom and motivate the own opinion using polite argumentation. During the role-playing game, it was noted that the participants had more arguments against the flipped classroom compared to the arguments pro flipped class. As for the arguments against, the majority of participants stated a lack of time due to other duties. Indeed, redesigning the traditional lectures to the flipped classroom activities is time-consuming. As one of the participants, playing anti-flipped class professor indicated, if a young teacher has free time, he needs to take over activities from other overloaded with work teachers instead of spending time on designing a flipped class, which might or might not be an effective pedagogic approach. Thus, many participants were sceptical of the effectiveness of the flipped classroom. Flipped classroom approach relies on the self-motivation of the students. The students, who are less motivated than others, will not be active in the follow-up sections and learn less. Interestingly, the students in our previous study [3] also listed the same argument. Other authors emphasised that teachers might not know the before-class learning status of the students, which might complicate the preparation of effective following-up in-class activities [4]. The second most often-mentioned argument against the flipped classroom approach was a lack of resources and knowledge. The participants underlined that pre-recording lectures require access to the recording software and devices as well as knowledge of using them. Pre-recording lectures also require knowledge of copyright issues, data protection and other legal considerations. It is obvious that all rights in the lecture content must be cleared before recording lectures. Thus, teachers should be educated in many different aspects in order to record their own teaching material. This brings us back to the first most often-mentioned argument – lack of time. Other arguments against the flipped class included i) the eventual lack of access to computer/internet by some students and ii) conservatism/scepticism to innovations ("why should we change to something new if old is good enough").

The strengths of the flipped classroom, listed by the participants included i) probably, easy memorising new material if the students have a possibility to watch or listen to material several times; ii) saving time in future; and iii) possibilities to use free online lectures pre-recorded by the leading international experts. Many participants express desire to try flipped class approach in their teaching in future.

The present study demonstrated that nowadays the motivation of teachers at the National University of Life and Environmental Sciences of Ukraine and Poltava State Agrarian University towards flipped classroom is not very high, and there are many logical reasons and clear explanations for this. Various barriers exist; the major of them is ongoing Russian aggression

against Ukraine, which makes individuals of all professions busy with other thoughts and duties. However, in future, flipped classrooms can be an attractive supplement to traditional teaching in building skills and abilities necessary for agricultural students in Ukraine.

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