FLIPPED CLASSROOM TRENDS IN BULGARIA: RESULTS FROM THE SURVEY

**Prof. Mariya Aleksieva, PhD, Prof. Tatyana Kotzeva, PhD,
Assoc. Prof. Krasimira Mineva, Assoc. Prof. Veselina Zhecheva, PhD,
Assist. Prof. Gergana Kirova**
Burgas Free University

Abstract: *This paper presents the results of the online survey of 97 faculty members from 27 universities in Bulgaria on the topic of the flipped classroom approach. The flipped classroom can be defined as a student-centered learning method, where the accent is on the new, active role of the student and on the collaborative way of learning. The aim of this first-of-its-kind survey was to investigate the experiences and opinions of university teachers regarding the use of the Flipped Classroom methods in Higher Education in Bulgaria as part of Intellectual Output 2 under the Erasmus+ programme KA2 funded project „Developing Flipped Methods for Teaching (DFM)". The key findings from the survey concern the way university teachers implement the use of the flipped-classroom approach, the main barriers to not using the flip, the rating of experience with the new method, students' feedback, etc.*

Keywords: *flipped classroom approach, student active learning, online survey, opinions of faculty staff, Bulgaria*

Introduction

A flipped classroom approach/technique is a type of blended learning and is part of the modern educational technologies that marks a move from traditional to more person-active learning [2, 3, 5, 6, 7]. It is based on the idea that lectures in the format of direct instructions are not the best way to acquire knowledge. Instead of using class time for listening of lectures and doing tasks, students encounter information and access content on their own before class and later, during class time they can discuss, pose questions and critically approach the topics studied [1, 4, 8]. Thus, in a flipped classroom at school or university students make presentations, debate and discuss with a teacher and peers to practice their knowledge and thinking under the guidance of the teacher.

This new approach attracts the attention of experts in education and researchers in different disciplines [9]. Flipped classroom learning spreads rapidly in the world and in Bulgaria, it is not well recognized. The aim of this paper is to describe the opinions of the university staff with regard to the flipped classroom technology and to present the teachers' views on the advantages and limitations in applying the new method in higher education in Bulgaria.

Design of the survey

This paper discusses the results of the survey conducted by the research team of Burgas Free University, Bulgaria within the Erasmus+ programme KA2-funded project „Developing Flipped Methods for Teaching (DFM). The aim of this first-of-its-kind survey was to investigate the experiences and opinions regarding the use of the Flipped Classroom methods in Higher Education in Bulgaria. The survey was conducted in the period April-

June 2021 among representatives/teaching staff members of Higher Education Institutions in Bulgaria. It was created in English by the DFM project Coordinator (the Károli Gáspár University of the Reformed Church in Hungary), using Google Forms, and was translated into Bulgarian by the Burgas Free University project team prior to being sent to the respondents. The survey was anonymous and included 21 questions in both qualitative and quantitative formats – multiple-choice and open-ended questions. An e-mail with a link to the Google Forms questionnaire was sent to more than 300 faculty members from 34 universities in Bulgaria inviting them to complete the survey. The mailing list consisted of faculty members at all levels – lecturers/teaching staff in different subject areas (including 9 faculties of Pedagogy, 6 faculties of Psychology and 8 faculties of Social Sciences), faculty management and administrators, as well as faculty developers and instructional designers. Half of the faculty members have teaching experience for more than 20 years. The survey was completed by 97 respondents from 27 Universities.

Main findings

What is the flipped classroom approach?

The questionnaire starts with a question about how the respondents interpret and understand the flipped-class approach. The question is *„Which of these definitions aligns with your interpretation of the flipped class?"*. A total of 97 respondents submitted their answers to this multiple-choice question with six possible answers (Fig.1). Almost half of the respondents, 47. 4%, defined the flipped classroom as follows: *„Students complete pre-class work individually before class and engage in team work and collaborative learning activities during class"*. The second in order of importance was the definition which presents the flipped classroom as a *„learning environment designed to switch the focus away from the instructor and toward the students"* – 45. 4% . Another interpretation submitted by almost half of the respondents, 44.3%, is also interesting and it focuses on *„lectures are recorded as videos for students to view outside of class time, freeing up time in class to engage in discussions and problem solving"*.

Fig. 1. Definitions of a flipped classroom approach

399
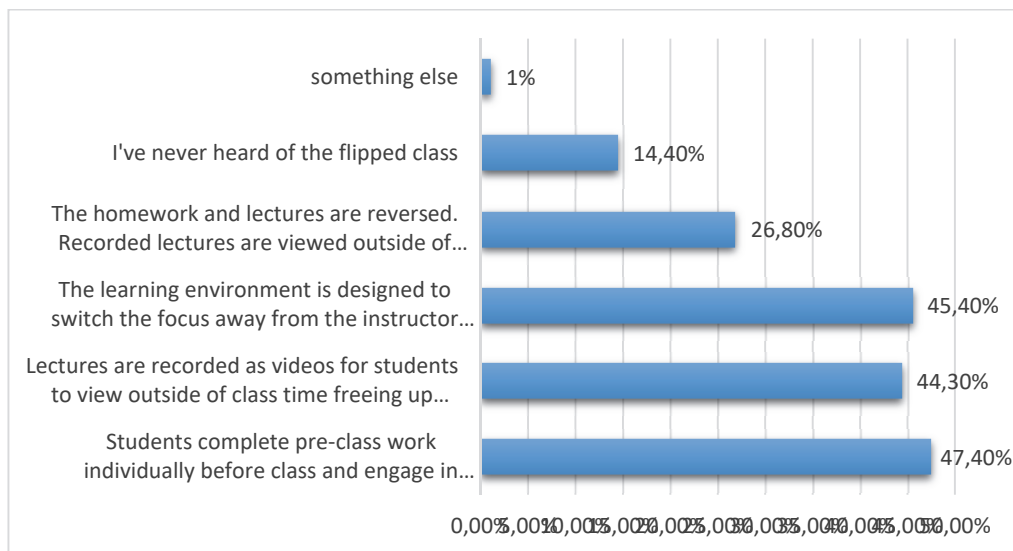
Subsequent to the set of definitions in the previous question, the respondents were asked an open-ended question: *In your own words, briefly describe some of the characteristics of flipped classes.* This open-ended question aimed to assess in more depth the knowledge and perception of the respondents about the flipped-classroom approach.

A total of 80 respondents (82%) out of the 97 participants in the survey submitted their answers. The vast majority of the respondents, 95%, are acquainted with the flipped class, only 4 of them stated that they had no idea of the flipped-classroom approach.

The variety of the respondents' answers we grouped around three main focuses:
- **student-centered learning** – the accent is on the new, active role of the student: *„This is a learner-centered model, which makes it possible to explore topics in more depth and creates more meaningful learning opportunities during classroom training.";*
- **collaborative learning** – the accent is on the teacher-student interaction: *"Shared responsibility for the learning process among the teacher and the students"*; *„Learners demonstrate individual activity in acquiring knowledge and the teacher puts a lot of effort into stimulating their skills and creative thinking, instead of passive teaching"*;
- **higher-level learning** – the accent is on the fact that the flipped classroom approach is a new method, with new means and tools, etc.: *„A new model for assimilation of information"*; *„ Wider use of the educational technology to present the learning content outside the classroom".*

The faculty staff' experience with the flipped classroom approach

The next questions concern the university teachers' experience with this innovative method. The purpose of the question *„Have you tried flipping an activity, class period, or course?"* was to induce the respondents to share their hands-on experience or lack of experience in applying the flipped-classroom approach, since being only aware of the technical parameters is not enough. In order to apply flipping in practice, teachers need time and additional resources prepared (instructions, video resources, a choice of topics, suitable to apply the approach, etc). This was a multiple-choice question with four possible answers. All the 97 respondents submitted their answers (Fig. 2). More than half of the respondents, 61%, definitely stated that they had tried flipping. One-third, 34%, said they had not tried flipping but intended to do so in the next year. Only 4 % of the respondents declared that they did not intend to flip their classes.

Flipping is related to effective time management. From the point of view of the competence-based approach, learners are encouraged to take more responsibility for their own learning and become more independent, as the teacher does not provide them with the information in advance.

Fig. 2. Have you tried flipping?
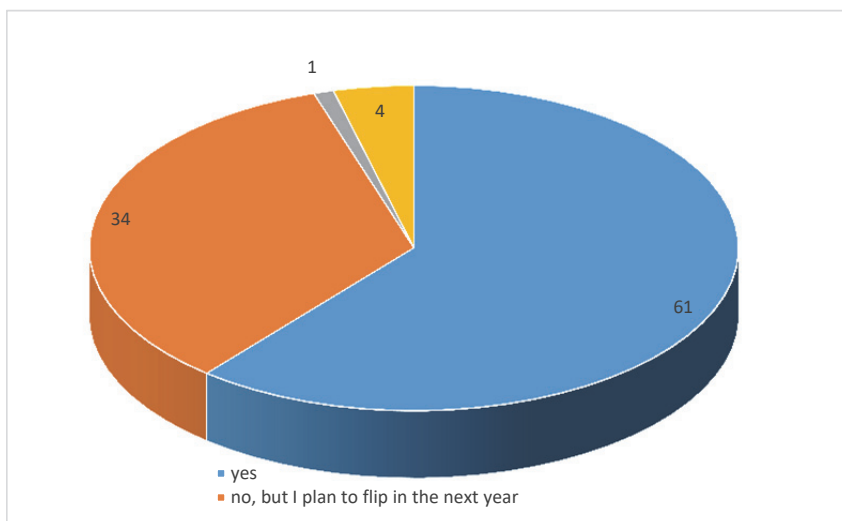
To the question: „*When did you first implement the flip?*” we received 62 answers (Fig. 3). The largest proportion of the respondents said that they started using the flipped approach more than three years ago (41.9%). This indicates that long before the use of the new name of the flipped approach, it had been used by part of the university teachers in their practice with the students. One in four teachers (27.4%) reported that they started using flipped classes within the past year.

Fig. 3. When did you first implement the flip?
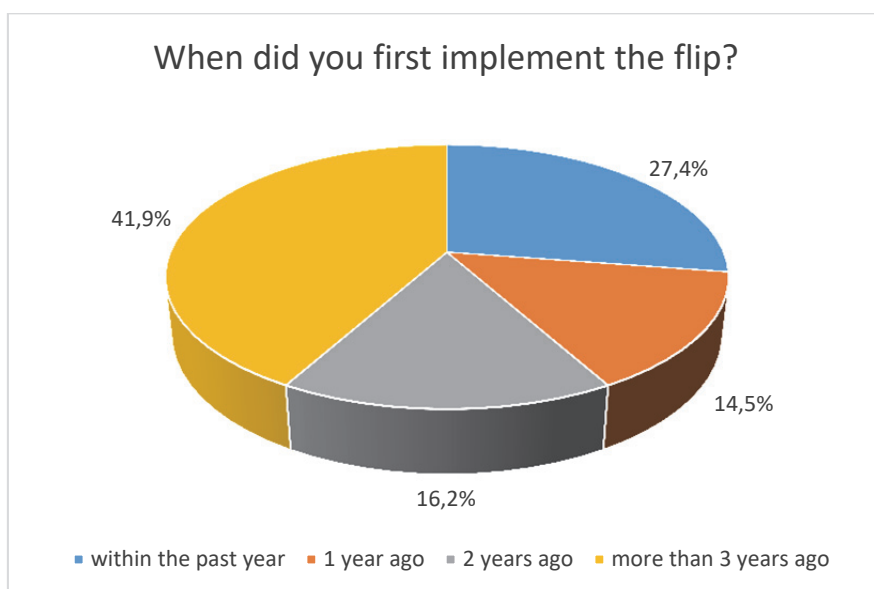
The next questions asked about the teachers' evaluation of how they rate their experience and their students' experience with the flipping (Fig. 4, Fig. 5). Answering the question *„How would you rate the experience for you?"*, the predominant proportion of the respondents assessed their experience with the flipped approach in a positive way – 85.5%. Only for 3.2% of them it had a negative meaning and 11.3% of the faculty called their experience 'neutral'. Answering the question *„How would you rate the experience for your students?"*, the predominant proportion of the faculty thought that the flipping had positive implications for their students – 83.9%. Only 3.2% of the teachers assessed the flipped classroom approach in negative terms for their students. 12.9% of the faculty rated the students' experience with the flipped classes in a neutral way.

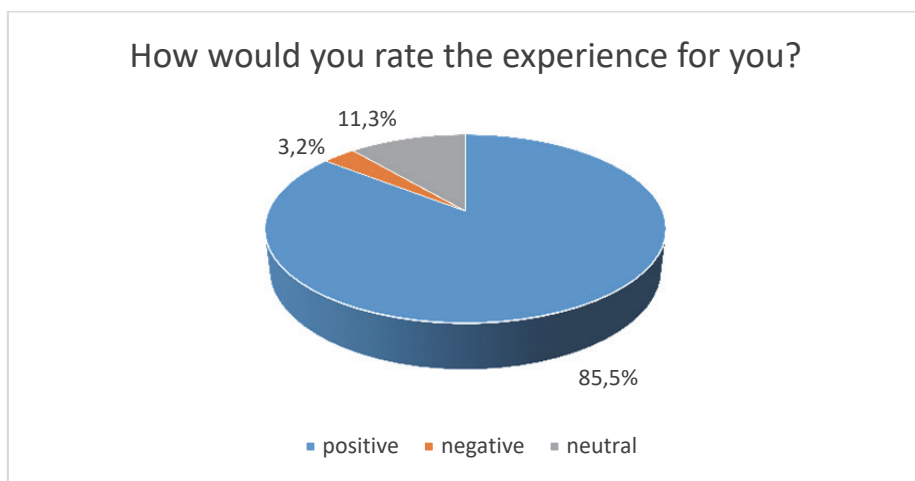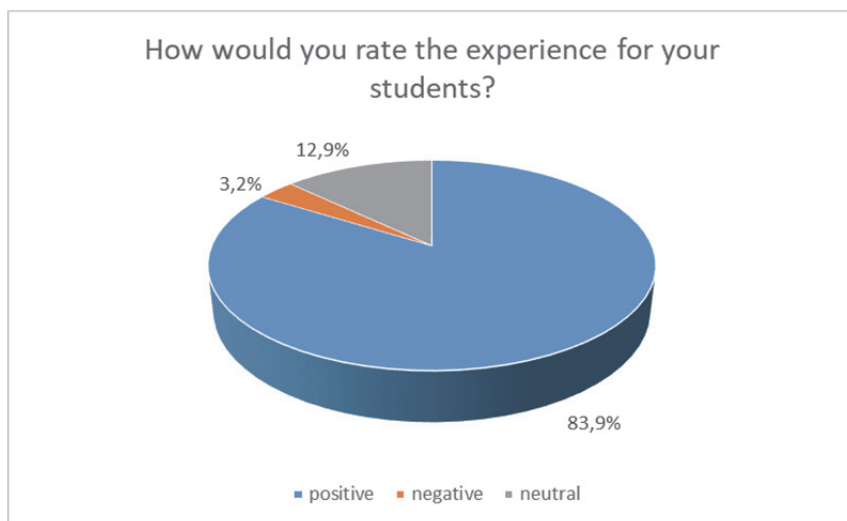**Fig. 4. How would you rate the experience for you?**

Fig. 5. How would you rate the experience for your students?

In the next question the respondents were asked to indicate the extent to which they agree or disagree with the following statements with regard to students' experience with the flipped courses. The respondents graded their answers according to the scale: „agree strongly", „agree somewhat", „disagree somewhat" and „strongly disagree". Fig. 6 presents the distribution of the answers and the three most prevalent answers:

They are more engaged
The vast majority of the respondents (73.8%) strongly agreed with the statement that students became more engaged in flipped classrooms. The rest (21.2%) agreed somewhat and only 5% disagreed somewhat with the statement.

They ask more questions
Almost all university staff stated that a flipped classroom could encourage more active student participation. More than half of the teachers (56.7%) agreed strongly and 33.3% agreed somewhat that students asked more questions in a flipped learning environment. Only 1% of the teachers disagreed with the statement.

They are comfortable using the technology
Most of the university teachers thought that students felt comfortable with the new technology. More than half of them (53.3%) agreed strongly and 30% agreed somewhat with this statement. Only one in six teachers (16.7%) somewhat disagreed with the idea of student comfortability with a flipped class, probably with a concern of limited access to computers and tablets for some of the students.
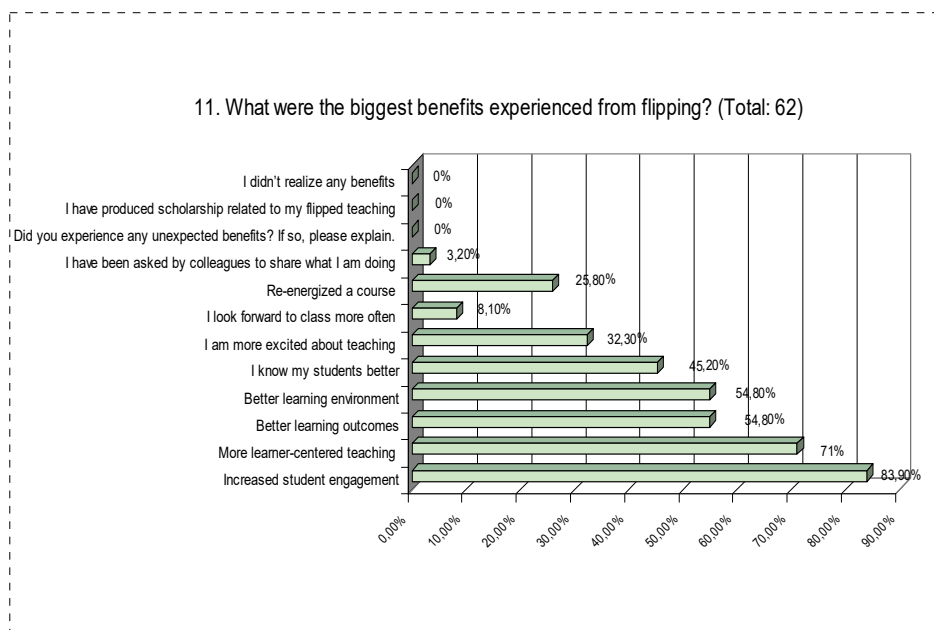
Fig. 6. The positives of the flipped class
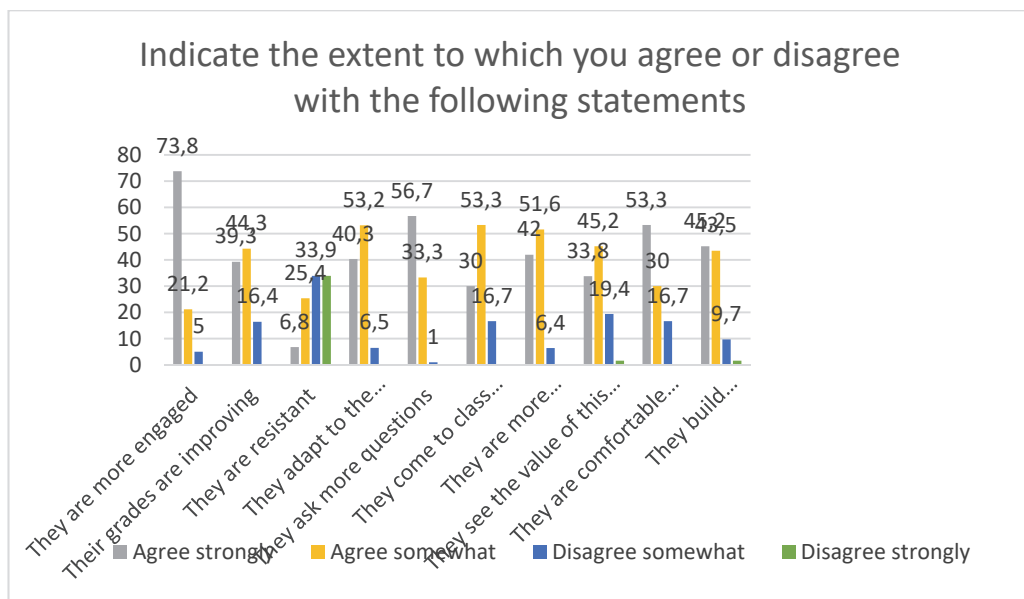
The survey offered the respondents the opportunity to choose from a list of 12 possible positive effects of applying the flipped-classroom approach those that they have observed

in their own teaching practice (Fig.7). The highest percentage of participants indicated that the benefit of flipping is an increase in student engagement (83.9%). The second most common benefit of applying the innovative approach is that teaching is more focused on the learning needs of students - 71% of those who completed the survey confirm this effect. More than half of the respondents (54.8%) indicated that the learning outcomes have improved, as well as the learning environment (54.8%).

Fig. 7. The biggest benefits experienced from flipping

11. What were the biggest benefits experienced from flipping? (Total: 62)

Category	Value
I didn't realize any benefits	0%
I have produced scholarship related to my flipped teaching	0%
Did you experience any unexpected benefits? If so, please explain.	0%
I have been asked by colleagues to share what I am doing	3,20%
Re-energized a course	25,80%
I look forward to class more often	8,10%
I am more excited about teaching	32,30%
I know my students better	45,20%
Better learning environment	54,80%
Better learning outcomes	54,80%
More learner-centered teaching	71%
Increased student engagement	83,90%

Challenges and directions for the future work with a flip

The application of innovative approaches in education often faces various obstacles. Some of them are related to the work environment (lack of understanding, support, and resources), others - to the individual abilities of teachers (lack of time to develop new learning materials, insufficiently well-developed technological skills). The participants in the survey had the opportunity to assess each of the identified barriers to the flipped classroom approach through a four-point rating scale ranging from „very significant/ always a challenge" to „insignificant/ rarely a challenge".

The percentage distribution of the answers to the question „*What challenges do you face when thinking about flipping your class?"* (Fig. 8) defines as the most significant barrier to the flipped classroom approach the pressure on teachers to be creative and develop new strategies and ideas. Some of them (23.44%) identified it as a very significant barrier and always happening, another part (28.12%) – as significant and frequent, and a third (21.88%) - as a moderate challenge, which only sometimes is a barrier to the flipping of the courses. About one-third of the participants (31.25%) defined it as an insignificant barrier and rarely a challenge.

Participants identify the time required to prepare for the flipped classroom as the second most significant barrier to applying the innovative approach. Less than one-third of the respondents (20.31%) consider time to be very significant/ always a challenge, 26.56% of them recognize it as significant / often a challenge, and 21.88% consider it a moderate obstacle that sometimes becomes a challenge.
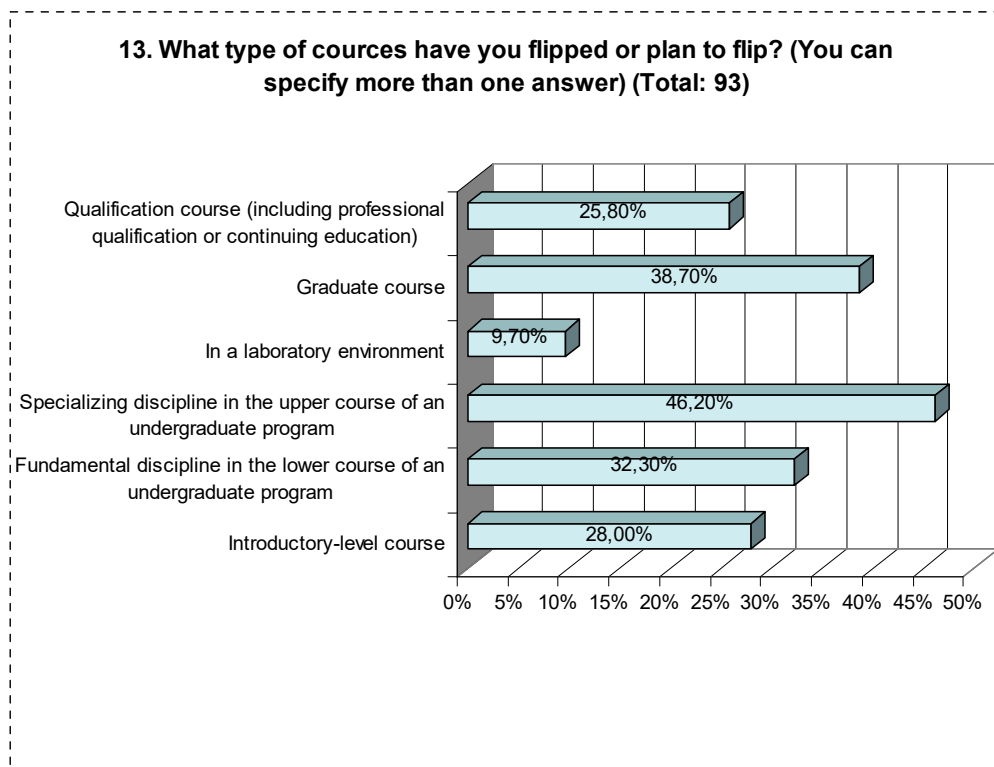
In the third place of importance is the lack of interest of students and lack of motivation. A total of 45.32% of the teachers believe that this is a very significant (15, 63%) or significant challenge (29.69%), which always or often happens. Another 31.25% of the participants in the survey consider this factor to be moderately significant and only occasionally has a negative impact, and 23.44% of all the respondents do not consider it a challenge.

Fig. 8. Challenges when thinking about flipping the class
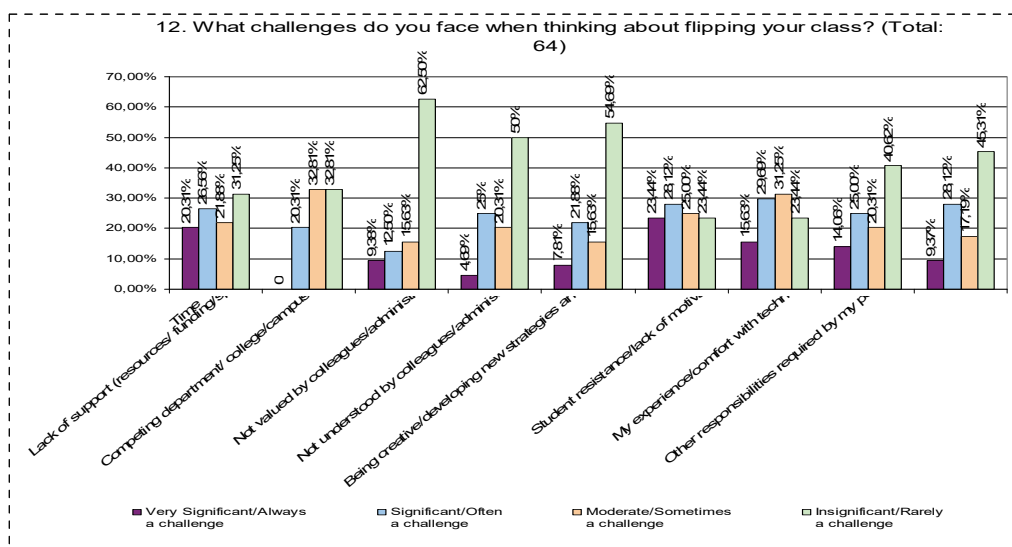
The respondents reported about their past experience and future plans for flipping, answering the question „*What type of courses have you flipped or plan to flip?*" (Total: 93 answers)(Fig.9). More than two-thirds of the participants focused on applying the approach in the disciplines of the bachelor's programs (78.5%). Approximately half of the total number of respondents (46.2%) have flipped or plan to flip a specialised discipline in the upper course, and 32.3% have chosen a fundamental discipline in the lower course of the bachelor's program. More than one-third of the respondents (38.7%) have chosen to apply this innovative approach in a master's course. Less than one-third focused on flipping an introductory course (28%) and a qualification course (25.8%). The lowest percentage of teachers reported that they flipped or plan to flip a course in a laboratory environment (9.7%).

Fig. 9. Type of courses having been flipped or planned to flip

13. What type of cources have you flipped or plan to flip? (You can specify more than one answer) (Total: 93)

Qualification course (including professional qualification or continuing education) — 25,80%
Graduate course — 38,70%
In a laboratory environment — 9,70%
Specializing discipline in the upper course of an undergraduate program — 46,20%
Fundamental discipline in the lower course of an undergraduate program — 32,30%
Introductory-level course — 28,00%

Lastly, we present the most prevalent answers of the teaching staff to the open-ended question

„What additional support would you need to continue flipping or begin flipping, if any?" (Total: 68 answers).

The largest group of respondents (23, 5%) identified the need for suitable training and resources: *„specialized methodological resources"*, *„specialized scientific and applied literature"*. Many teachers would like access to a suitable online platform with shared digital resources and specialized literature, a shared experience with colleagues, practical advice and ideas, useful tips and sharing good practices of the application of the flipped classroom approach.

Another large group of the respondents echoed the challenges set in the multiple-choice questions earlier in the survey - an important factor for almost 15 percent of the teachers is the students' motivation: *„It all depends on the students"*, *„Active and motivated students"*. An assistant professor in Social Sciences from a four-year public institution said: *„Motivating students to prepare for the topic at home is the most difficult task. I need their support."* Another assistant professor from a four-year private institution called for: *„Better preparation of students for independent reading and thinking in the previous stage of study (secondary education)"*.

Almost one-fourth (16.2%) of the teaching staff stated (in some form or other) that they did not need support, answers varying from *„I don't need support"*, *„I, personally, don't"*

to *„I do not need any. I am the class lecturer, I deliver the lectures and exercises and I have complete freedom to conduct them as I see fit”* (an associate professor from a four-year public institution) and as a full professor from a four-year public institution said *„Personal initiative and good knowledge of the qualities of students are the decisive factors for me. I do not feel the need for additional support”.*

Several respondents noted the need for adequate financial resources and one of the respondents, an associate professor from a four-year public institution, was very specific: *„More resources-e.g. financial, for tickets to visit museums, where to be able to organise flipped classrooms”.*

Many of the respondents would also like to have access to better equipment, technical support for designing their flipped courses as well as a variety of interactive tools and applications.

Several respondents identified the need to improve their digital skills. Surprisingly only 4 respondents indicated the factor of time and the need to reduce the heavy teaching load.

Last but not least, some respondents reiterated another challenge stated in the earlier questions of the survey, demanding more moral support and incentives from the university managing bodies and faculty chairs regarding the use of the flipped-classroom approach. *„The application of flipped classroom should be valued more from the university administration and considered as teaching workload”,* said an associate professor in Legal studies at a public four-year institution.

Highlights

In sum, we outline the main results of the survey:

- More than half of the respondents (60.8%) have tried flipping an activity, class period, or course and are planning to do it again. Only one respondent (1%) has tried flipping and does not intend to do it again.
- One in four teachers (27.4%) reported that they started using the flipped classes within the past year, whilst the largest proportion (41.9 %) of the respondents started using the flipped classroom approach more than three years ago.
- The vast majority of the teachers who have tried flipping assessed their experience as positive for themselves (85.5%) and for their students (83.9%).
- The top three reasons for flipping are: the desire to increase students' engagement (80.6%) and shift away from lectures and become more learner-centered (64.5%), as well as to improve student learning (46.8%).
- As regards to the benefits, more than four-fifths of the respondents identified the increase in student engagement (83.90%) as the most important benefit of flipping, while, equally, more than half indicated that the learning outcomes, as well as the learning environment have improved (54.8%).
- The vast majority of the university teachers, more than 90%, believe that flipping stimulates students to be more collaborative and more than 80% said they ask more questions, while approximately one-third of the teachers shared the opinion that students are somewhat resistant.
- The pressure on teachers to be creative and develop new strategies and ideas seems to be the most common barrier to the flipped-classroom approach. Almost a quarter (23.44%) identified it as a very significant barrier and another 28.12% as significant and frequent.
- Only 5 respondents are not interested in flipping – 80% of them said they lack enough knowledge about flipping and the other 20% considered it as a fad.

Conclusion

Applying the flipped classroom approach is a challenge for the traditional teaching practices, because in traditional 'classrooms / lecture halls', much of the time spent face-to-face is actually wasted in presenting the information. Applying flipping, the teacher plays a new role - a moderator. This role should be geared towards enhancing learning by organizing, facilitating and providing feedback on structured learning activities.

The results of the online study on the university staff's attitudes in Bulgarian higher education turn to be optimistic. They show that the majority of the teachers approve of flipping and use the flipped classroom approach in their lessons. The results obtained indicate that when organizing interactions with the students, the teacher/lecturer personalizes the training. For example, students can watch the video lecture prepared by the teacher many times, then stop it, reflect on what they have seen / heard, learn at their own pace, regardless of the time or the place. They can replay the parts of the video lecture that are difficult to comprehend. On the other hand, the university teachers identify the main barriers to applying this innovative approach such as need for suitable training and resources, financial and technical support from the university, time pressure and intensive teachers' workload.

The results of this survey give us a greater insight into how to promote the implementation of the flipped classroom in higher education in Bulgaria.

References

1. Akçayır, G. & Akçayır, M. The flipped classroom: A review of its advantages and challenges. *Computers & Education*, 2018, vol. 126, November 2018: 334-345
2. DeLozier, S.J., & Rhodes, M.G. Flipped classrooms: a review of key ideas and recommendations for practice. *Educational Psychology Review*, 2016: 1-11. http://link.springer.com/article/10.1007/s10648-015-9356-9.
3. Gilboy, M. B., Heinerichs, S., & Pazzaglia, G. Enhancing student engagement using the flipped classroom. *Journal of Nutrition Education and Behavior, 47*(1), 2015: 109–114
4. Kong, S. C. Developing information literacy and critical thinking skills through domain knowledge learning in digital classrooms: an experience of practicing flipped classroom strategy. *Computers & Education, 78*, 2014: 160–173
5. Ozdamli, F. & Asiksoy, G. Flipped classroom approach. *World Journal of Educational Technology*, 2016, vol.8 N 2
6. Snyder, C., Paska, L. M., & Besozzi, D. Cast from the past: using screencasting in the social studies classroom. *The Social Studies, 105*(6), 2014: 310–314
7. Turan, Z. & Acdag-Cimen, B. Flipped classroom in English language teaching: a systematic review. *Computer Assisted Language Learning*, vol. 33, 2020 – Is. 5-6: 590-606
8. Vazquez, J. J., & Chiang, E. P. Flipping out! A case study on how to flip the principles of economics classroom. *International Advances in Economic Research, 21*, 2015: 379–390
9. Zainuddin, Z., & Halili, S.H. Flipped classroom research and trends from different fields of study. *International Review of Research in Open and Distributed Learning, 17*(3), 2016: 313–340