



Developing Flipped Methods for Teaching (DFM) – Erasmus+ Strategic Partnership for Higher Education Project
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Report

Flipped Classroom Trends: A Survey of College Faculty and Cases



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Introduction

This report presents the results of the survey Flipped Classroom Trends: A Survey of College Faculty developed by the University of Coimbra in the scope of the Erasmus+ project Developing flipped methods for teaching. Two examples of flipped methods implementation are also summarized.

Flipped Classroom Trends: A Survey of College Faculty

Method

This survey was conducted between May 2021 and January 2022. It was advertised through University of Coimbra Facebook and email sent to all teachers. Other Higher Education institutions were also contacted in order to ask for the dissemination of the survey.

Participants

A total of 58 participants completed the survey, 58% female, 41.8% male (Figure1).

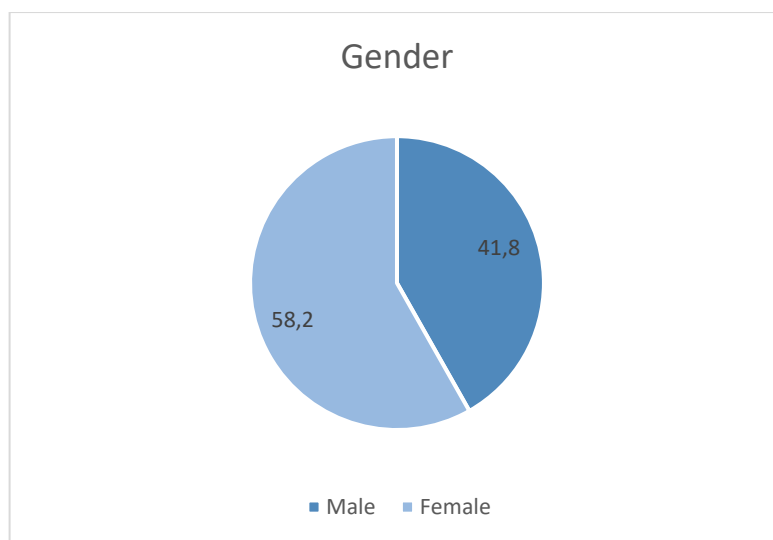


Figure 1. Gender of participants

Answers to the question ‘How many years have you worked in Higher Education?’ evidenced an experienced group of respondents. Around 56.6% of all respondents had more than 20 years of Higher Education experience and 69.9% more than 10 years (Figure 2).

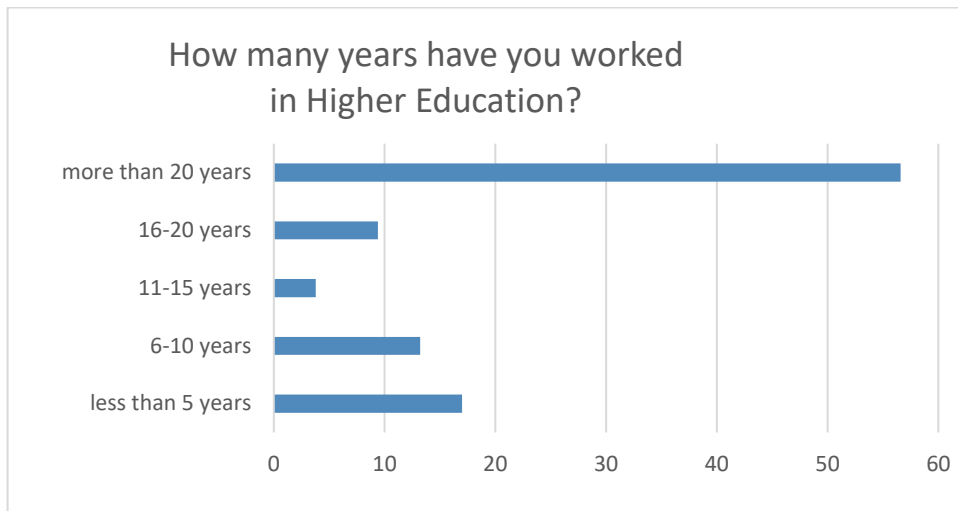


Figure 2. Working years in Higher Education

About the current position in Higher Education, nearly all respondents chose a job title that suggested some teaching responsibility. Assistant professors made up the largest group, with 36% of total survey respondents, followed by associate professors (Figure 3)

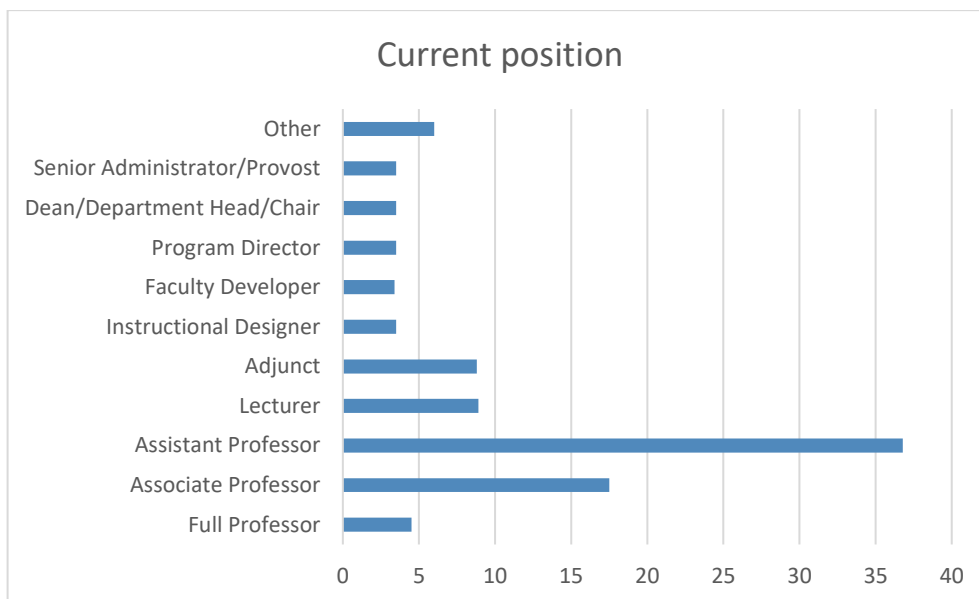


Figure 3. Current position

Which of these best fits your field or discipline? No discipline comprised a majority of respondents, although some occurred more often than others. The largest group of respondents (26.3%) represented education area. The next largest group, with nearly 13% of respondents, represented health sciences and related programs (Figure 4).

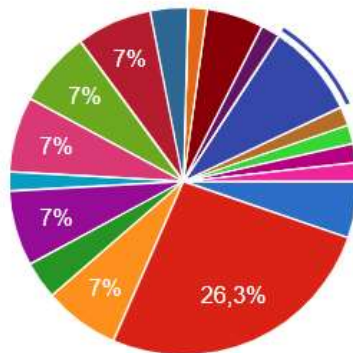


Figure 4. Field or discipline

Which best describes your institution? The largest group of survey respondents (78.6%) was from public Higher Education institutions. The second largest contingent (8.9%) was from private institutions (Figure 5).

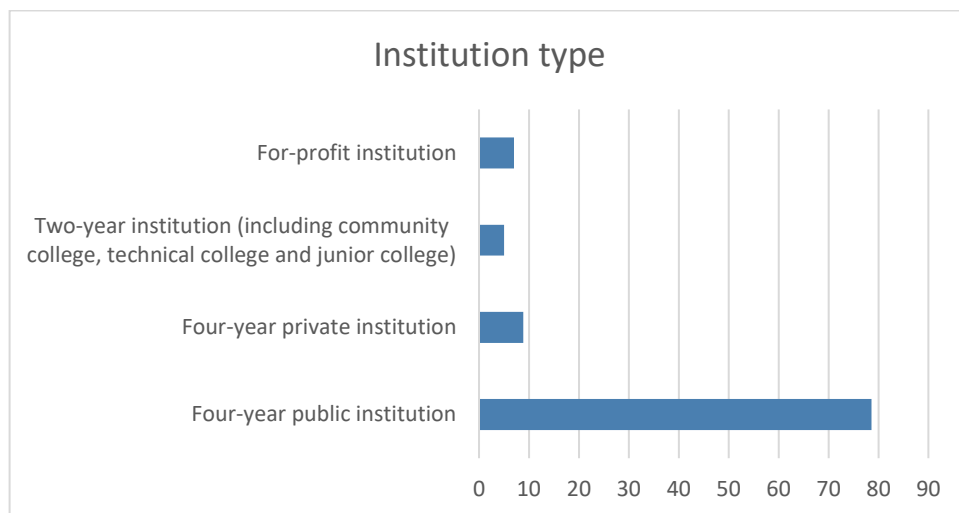


Figure 5 Institution type

Questionnaire

The questionnaire used was developed in the research Trends in flipped classroom (2015).

It featured 18 questions, including both qualitative and quantitative formats (multiple choice and open-ended questions). It was translated to Portuguese. This was anonymous, using the Google form web tool



Results

Following, results from the survey are presented.

Flipped class conceptions

Conceptions of flipped classroom were analysed through a multiple choice question and an open-ended question, where participants were asked to define flipped classroom by their own words.

Considering the question 'Which of these definitions aligns with your interpretation of the flipped class? (Select all that apply)', (Figure 6), approximately half of respondents defined the flipped classroom as a model where **'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'** (52%).

The second and third most popular definitions were 'The homework and lectures are reversed. Recorded lectures are viewed outside of class time, and homework is completed during class time' (19%) and never heard of the flipped classroom.

The options "The learning environment is designed to switch the focus away from the instructor and toward the students" (14%) and 'Students complete pre-class work individually before class and engage in teamwork and collaborative learning activities during class' (14%) are represented similarly.

The results diverged from the survey Flipped Classroom Trends: A Survey of College Faculty developed by Faculty Focus (2015). In this report the most frequent statement was 'Students complete pre-class work individually before class and engage in teamwork and collaborative learning activities during class' (67%), while in the survey that is reported here this statement was referred only by 14%.

Other conceptions of flipped class are referred in approx. similar frequencies in both surveys.

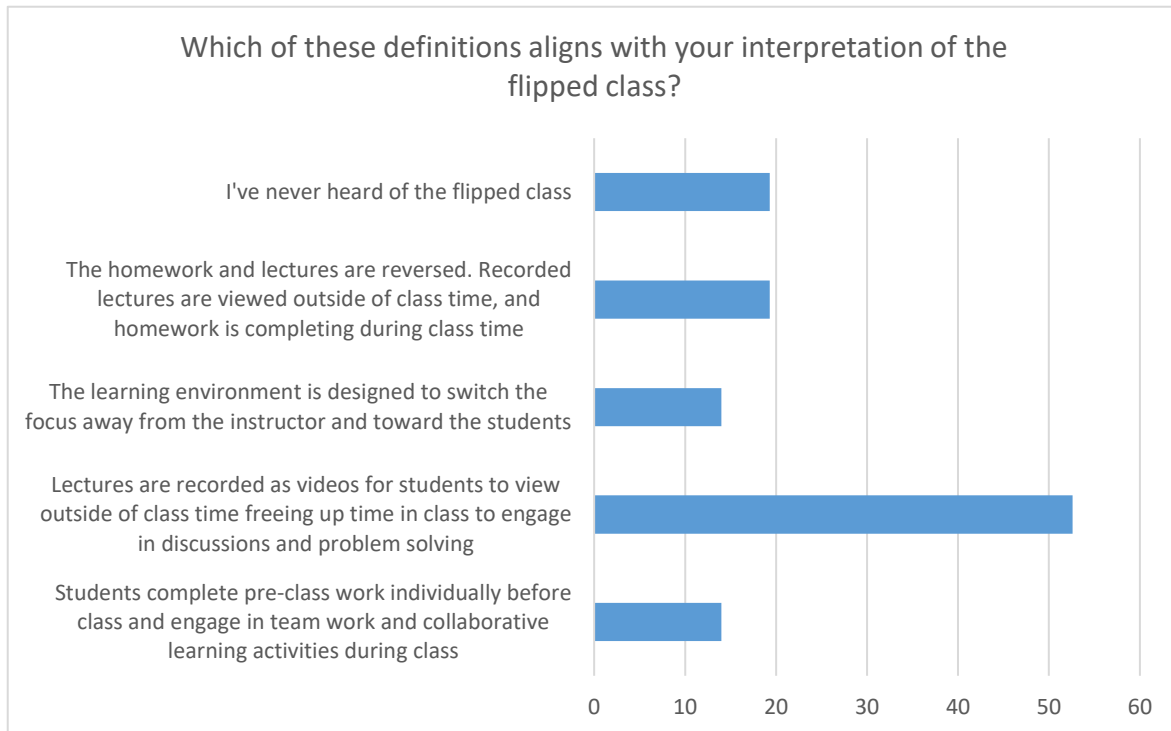


Figure 6. Conceptions of flipped class

Answers to the open-ended question ‘In your own words, briefly describe some of the characteristics of flipped classes’, evidence that each answer includes several characteristics of the flipped classroom. The most frequent dimension is the flipped process, referred by almost all participants: what is usually done in class would be done previously, by the students, and the class time could be used for other tasks, namely discussions. There were some variations about how the flipped can be implemented, in fact; using printed texts, group work, videos, or other resources. There are also references to the processes involved, namely students’ participation, engagement, motivation, as well as to the impact of using the method. In this scope some participants referred that the method promotes deep learning and autonomy. The change in general pedagogical approach is also referred by some participants: active method, student centred, change of teacher and student role; interactive.

This is in line with results previously obtained in a similar survey (The Faculty Focus, 2015), where, ‘responses ranged from tactical specifics to more theoretical explanations of the practice. **Recurrent themes among the responses included student-centered learning, collaborative learning, and higher-level learning. Video lectures, educational technology, and in-class activities also appeared frequently in the responses.** However, since survey participants were asked to describe characteristics of flipping, **most of the answers capture elements of flipping and do not, by and large, present comprehensive definitions.** One answer described **the practice of flipping without getting into the foundational rationale for the approach.** (...) Others answers hinted at the **motivation behind flipping rather than on**



how flipping creates a learner-centered classroom or what about it promotes higher-level learning. (...) Other descriptions and definitions of flipped classes included: **“Professors create video lessons that students watch outside of class.”**

Experiences and practices of flipped class

Have you tried flipping an activity, class, period, or course? Approximately half of the respondents, 54.46%, said they had tried flipping some element of instruction. Of those, only about 5.3% indicated that they would not do it again. Another 26.3% of respondents had not yet tried flipping but intended to do so. About 14% of respondents had not tried it and did not intend to try it (Figure 7).

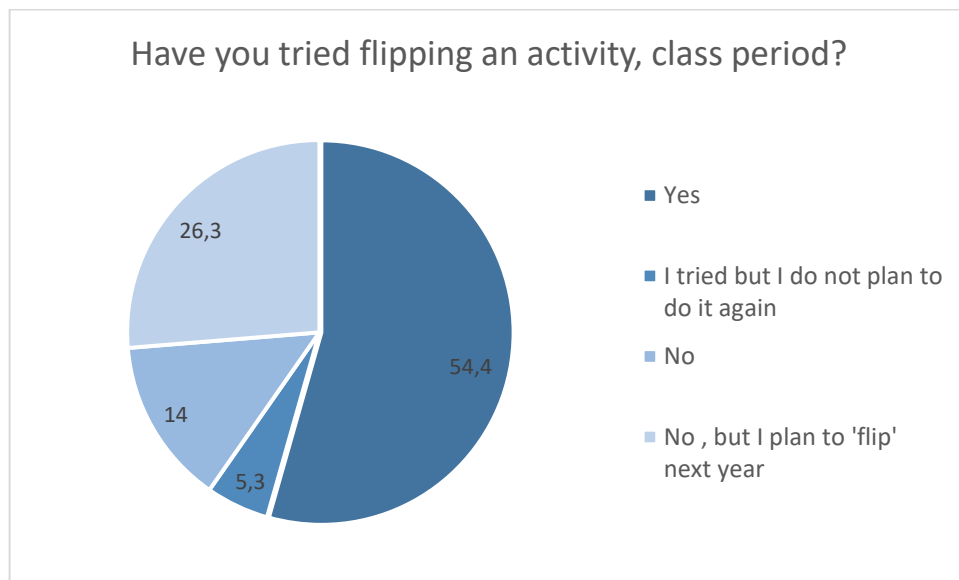


Figure 7. Experiences of flipped teaching

Why are not interested in try flipped classroom again? Analysis of answers to an open-ended question evidenced reasons as:

- “The students did not take in account the rules and procedures and did not prepare in advance. Thus, many arrived unprepared, without exposure to the lesson’s course content, and therefore could not effectively participate in class activities’.
- Also participants referred that many of their own students did not like the approach and stated that it was a way for teachers "not to want to work".
- Other reason for not implementing flipped class again were ‘In very large classes and where there is no direct relationship with the students it is difficult to coordinate activities’.
- ‘It demands a lot of time’.



These reasons are complemented with answers to a multiple choice question about the topic, ‘Why you are not interested in flipping your class or what prevents you from flipping. Select the statement(s) that best explains your decision’ (Figure 8). The survey instrument enabled respondents to choose multiple answers from a list of options, and the most popular responses (nearly 37.5% of this subset of respondents) were that the **respondents did not feel “knowledgeable enough about flipping to try it”, “uncomfortable with the approach” and “too time consuming”** (Figure 8).

Approximately a quarter of respondents, 25%, chose the option ‘It’s a fad that will soon be replaced by the next new thing’, while 12.5% referred ‘Limited experience with and/or knowledge about technology’, ‘Lack of recognition and/or support’ and ‘This type of work is not part of my position/role’.

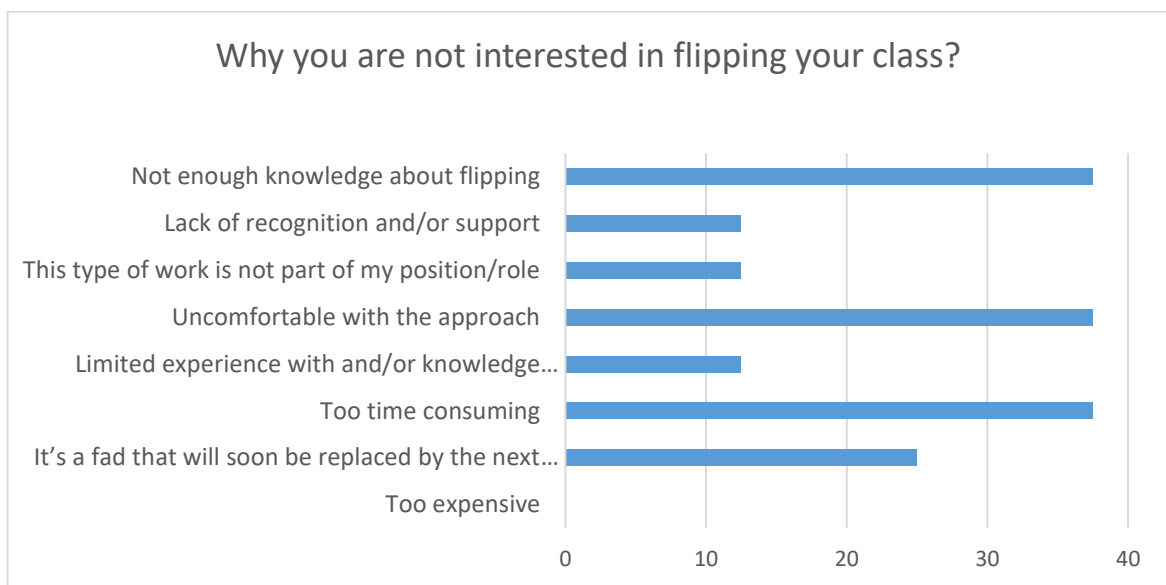


Figure 8. Reasons for nor implementing flipped teaching

When did you first implement the flip? The largest group of respondents first tried the flipped approach **more than three years ago**. Interestingly, the second-largest group, 23% of respondents, actually implemented the flip within the past year. The next-largest group, comprising 12% of respondents, first flipped more than one year ago, the same form more than two years ago (Figure 9).

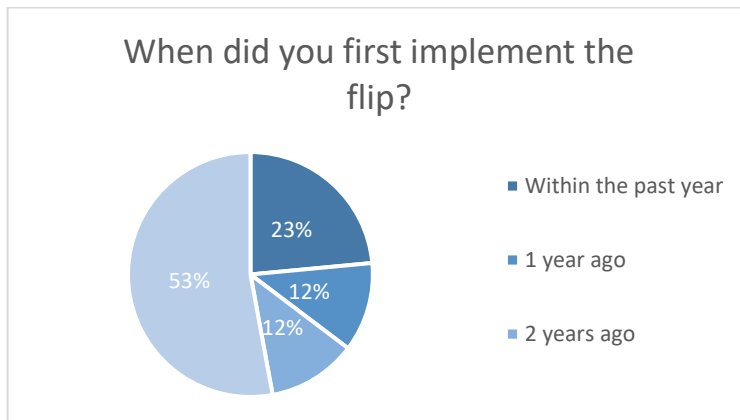


Figure 9. When flipped teaching was implemented

How would you rate the experience for you? More than **80%** survey respondents indicated that **flipping is a positive teaching and learning experience**. Only 6% reported that it was a neutral experience, while 12.5% of respondents had a negative experience (Figure 10).

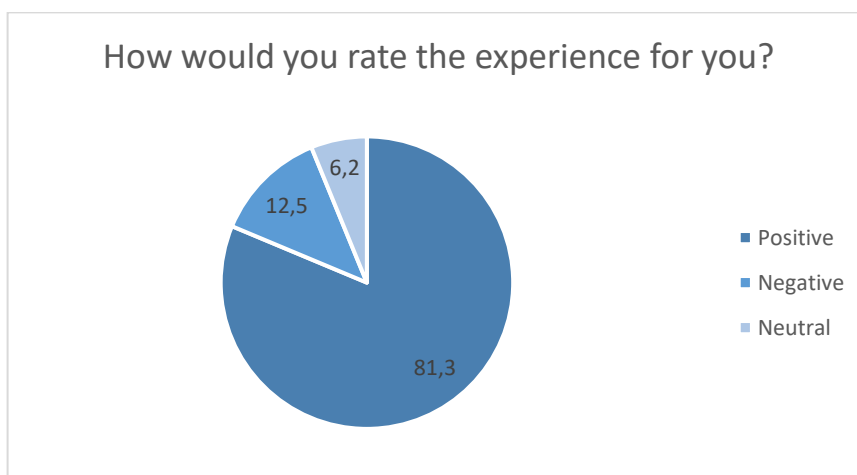


Figure 10. Perceptions about the experience of flipped teaching

Nearly **79%** of respondents indicated that flipping was a **positive experience for their students**. Just over 14.7 of respondents said the experience was negative and the remaining 5.9% of respondents indicated that the experience was neither better nor worse for their students.

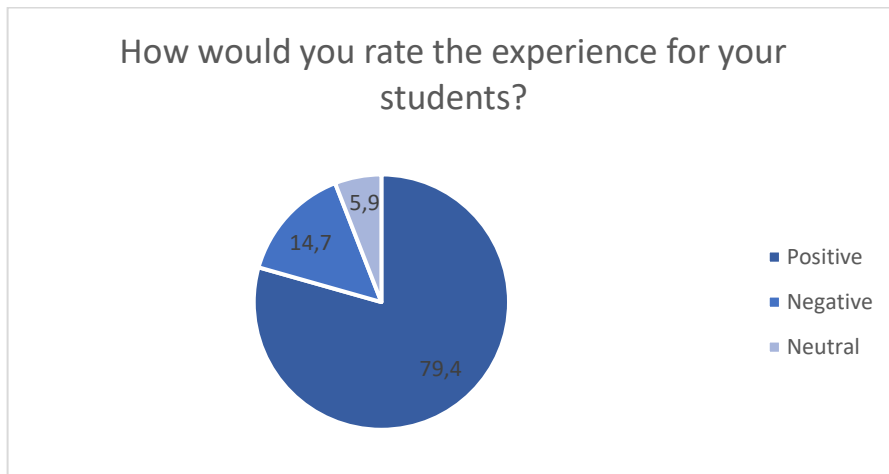


Figure 11. Perceptions about the experience for the students

Why did you decide to start flipping? Participants were asked to identify reasons for flipping. They could select more than one answer. The responses reveal that most survey participants were driven by a **desire to better engage students** (85.3%) and **to improve student learning** (79.4%). These results are similar to those previously obtained (Trends in Flipped Class, 2015) and align with the definition of flipping established at the start of the survey. **Improving the learning environment** was a goal for nearly 58.8% of respondents. Nearly 47% of respondents indicated that they used the flipped approach to teaching as part of a **concerted effort to move away from lecturing** and to make their instruction more learner-centred. As referred 'The most popular answers reflect a desire to improve not only actual learning but also the learning experience for students' (Figure 12).

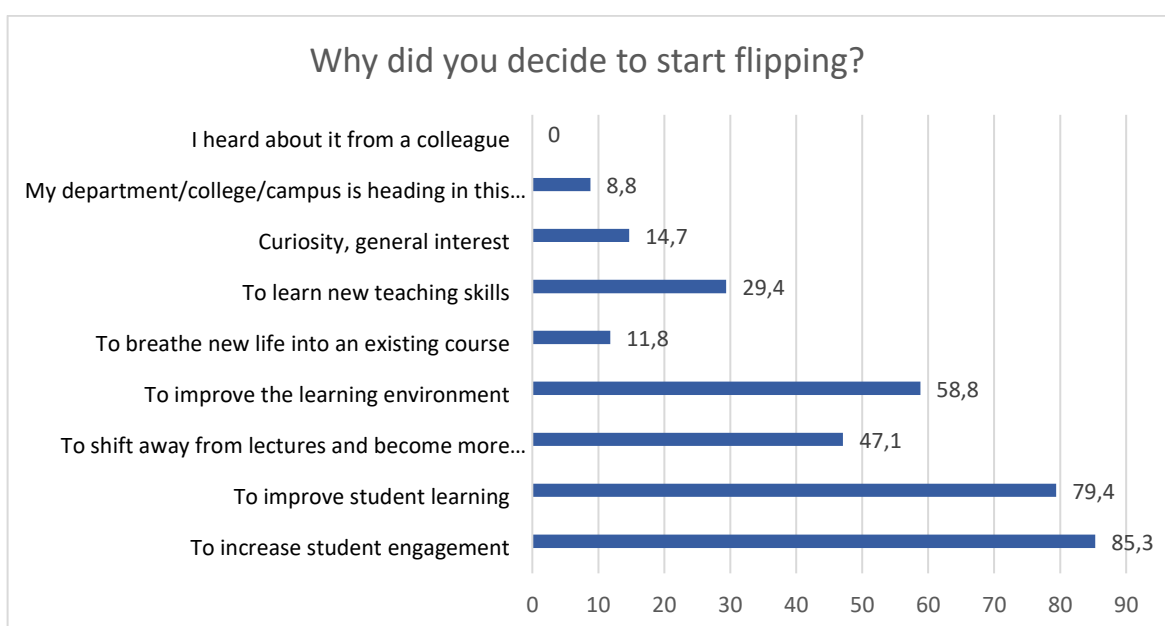


Figure 12. Reasons for implementing flipped teaching



Participants were also asked to ‘indicate the extent to which agree or disagree with the following statements related to students in their flipped course’. Statements with higher rates of agreement are **‘They are more engaged’**, **‘They see the value of this type of experience’** and **‘They are comfortable using the technology’**.

On the other hand, statements with lower levels of agree were ‘They are resistant’ and ‘They come to class prepared’ (Figure 13).

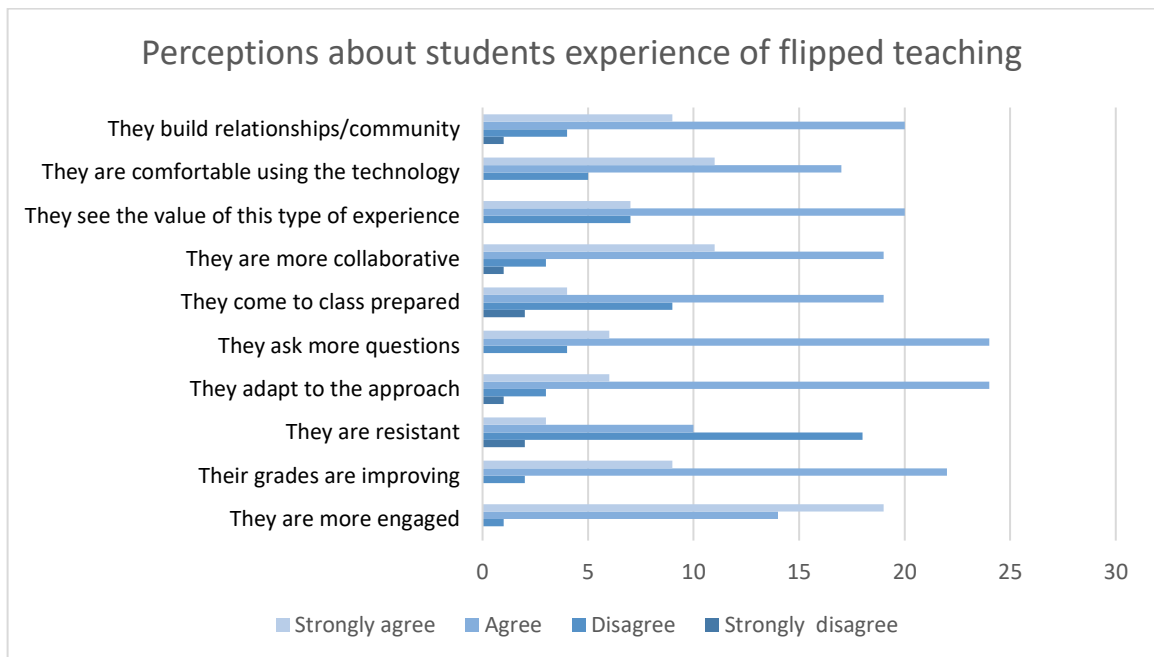


Figure 13. Extent to which participants agree or disagree with statements related to students in their flipped course



Participants in the survey were asked to identify ‘What were the biggest benefits experienced from flipping?’, considering 10 different choices and the option to select multiple answers. Most of the respondents indicated that flipping positively **increased students’ engagement (91%)** and **more learner centred class environment (84%)**, as well as **improved learning environment (73%)** and **students learning (71%)** (Figure 14).

These actual benefits of flipping align closely with the reasons instructors wanted to try flipping, as indicated in the previous question (Why did you decide to start flipping?)

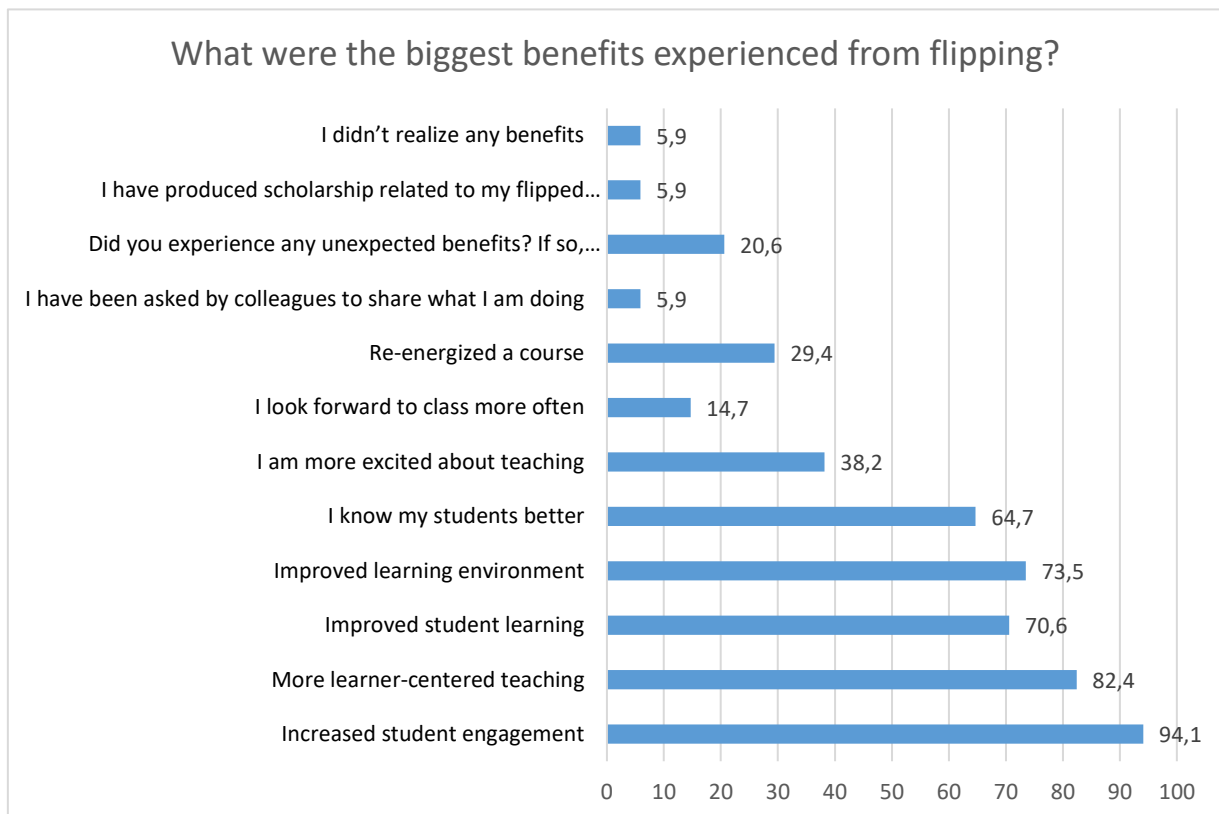


Figure 14. Benefits from flipping

Survey answers revealed that respondents personally benefited from flipping, too. Many teachers (64%) indicated that through flipping they were able to get **to know their students better**. Nearly just as many (38.2%) reported that flipping made them **more excited to teach**. Almost a third (29.4%) of participants said that flipping **re-energized their courses**. Some survey participants who tried flipping identified advantages they did not expect (20%). Some respondents (5.9%) indicated that their colleagues not only took notice of their flipping but also asked respondents to share their methodology and that they were able to produce scholarship about the approach and their experiences.



Many **challenges** exist for faculty who want to experiment with innovative teaching approaches. Respondents identified several **limiting factors**, the greatest of which was **time**. Following, **students’ resistance and lack of motivation** was also considered a challenge, as well as the **need to be creative and develop new methodologies** and the **lack of support** (Figure 15).

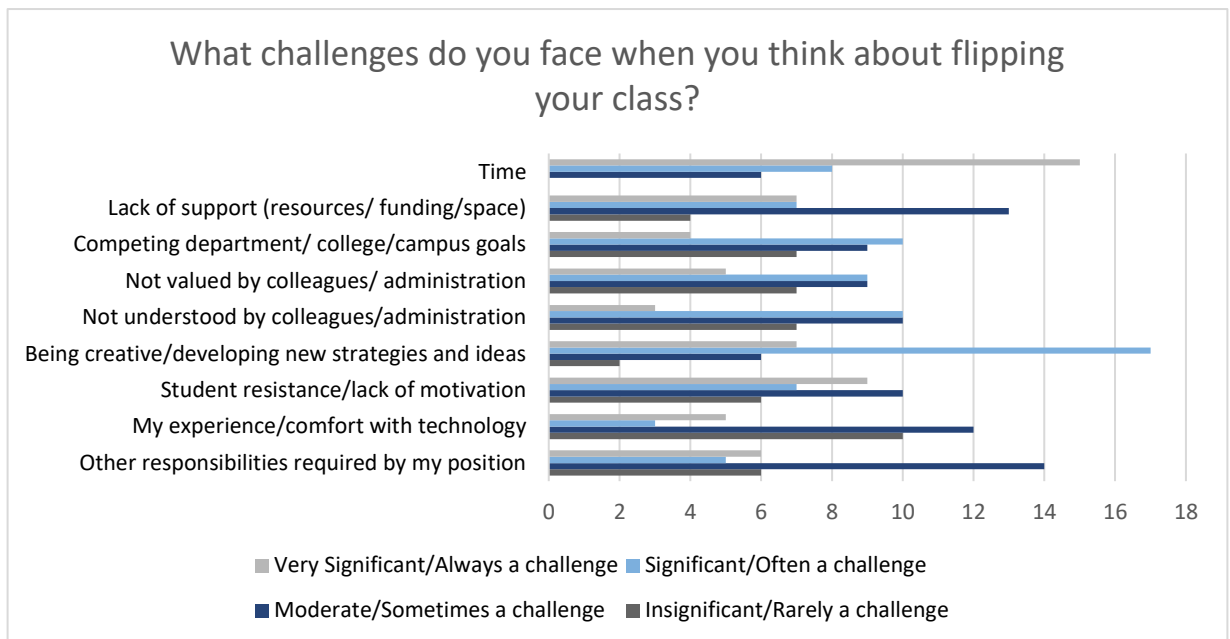


Figure 15. Challenges to implement a flipped class

This are in line with open-ended responses, in which instructors who tried flipping indicated that it was more **time-consuming** than they had anticipated (and then traditional lecturing). Other challenges involve responsibilities required by teachers’ experiences and teachers’ comfort with technology, as well as not being understood by colleagues and administration.

What type of courses have you flipped or plan to flip? About half of respondents had flipped or planned to flip an **undergraduate course**, and a similar number had flipped or planned a **graduate course**. Introductory courses (19%), capstones and other senior-level courses (23%), professional development (23%), were also referred. which included training and continuing education). Labs (15%) were referred by a lower number of participants (Figure 16)..

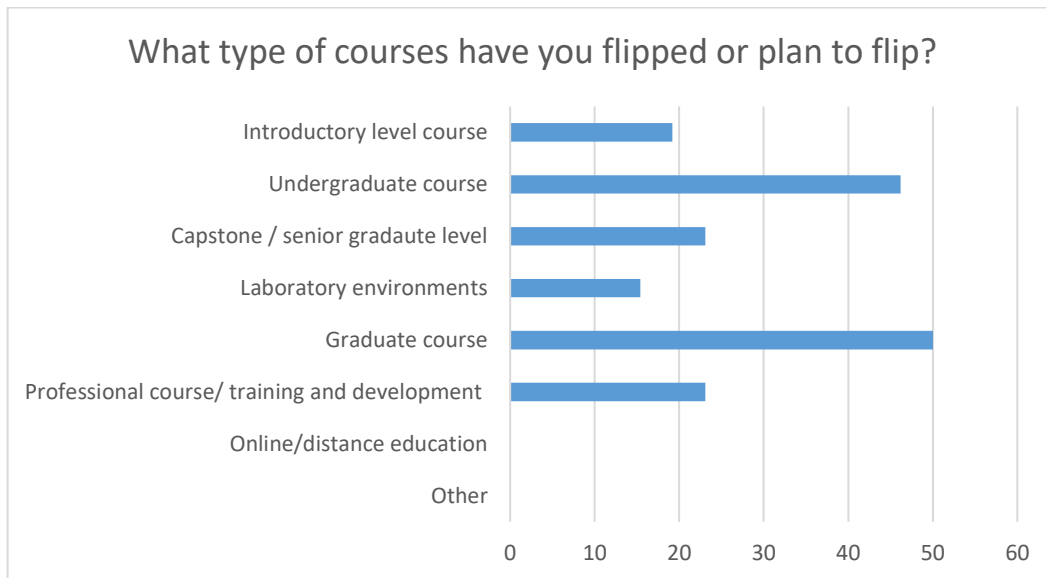


Figure 16. Courses flipped or plan to flip

How many students were in the course(s) you flipped or **plan to flip**? Nearly one third of respondents (35.4%) either had flipped or planned to flip a class with **fewer than 25 students**. The next largest group (31.3%) had used or would use flipping in classes with 26 to 50 students. Only around 25% would consider or had tried flipping in larger classrooms, with 3.4% finding it appropriate for 51 to 75 students and 10% feeling the same about 76 to 100 students, while 12% respondents saw a use for flipping in large classes with more than 100 students (Figure 17).

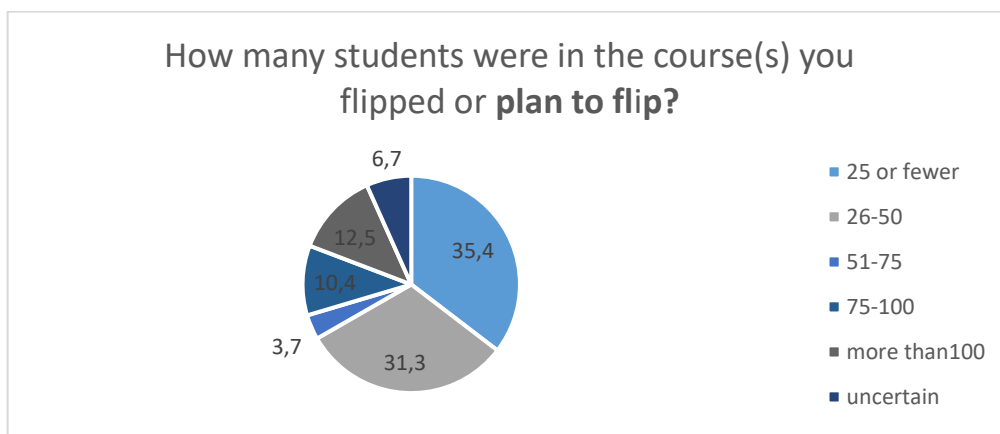


Figure 17. Number of students in the course(s) planned to flip

What additional support would you need to continue flipping or begin flipping, if any?

This open-ended question invited a variety of responses. Many respondents reiterated the concerns identified earlier in the survey. Although some participants referred no needs, this was a minority, as only two respondents said that they would not need support in order to implement flipped methods. Other participants referred several needs. One of the most



frequent was about the **time** involved. In order to implement flipped teaching and learning, additional time would be needed. Others needs were about **institutional support**, as well as **collaboration with colleagues** and **training**. **Technological support** would also be needed, in order to implement the methods and to **produce resources** to be used, namely videos.

These results are similar to the ones previously obtained in a similar survey (The Faculty Focus, 2015). There, time was 'a factor for instructors' and 'several identified a need for adequate training and ongoing professional development opportunities so they could learn about and explore new technologies and practices before introducing these ideas to their students. Respondents see their peers as invaluable resources and want to collaborate and share ideas, tools, and best practices. Many would also like access to a collection of resources, such as tips for flipping a lecture-based course, accessible and user-friendly video technologies, and classroom activities that are easily adapted to different disciplines' (...) 'While respondents overwhelmingly identified a greater need for a variety of resources, many were quite specific and wanted greater access to the instructional technologies that can facilitate flipping. Others would appreciate access to technological consultation at times. (...) Several respondents identified very practical needs, such as more flexible classroom spaces with tables and chairs configured for group work. Echoing concerns about technology that surfaced in previous questions, survey participants questioned using an instructional model that relied so heavily on student access to computers or technology. They were looking for, among other things, assurances that students would have access to the tools they would need in order to effectively participate in a flipped course. Some respondents, hinting at some of the challenges listed earlier, called for greater training for and engagement from department chairs so that they would understand flipping, how it works, and what it can accomplish.



Cases

Flipped methods to innovate teaching and promote knowledge, understanding and deep learning

Professor Valentim Alferes, PhD, Faculty of Psychology and Educational Sciences – University of Coimbra

Curricular unit: Social Psychology

About 150 students were enrolled in the course.

What motivated the teacher to implement flipped methods was the desire to put an end to traditional practical classes, and to implement teaching and learning strategies that could involve students in a participative way and to promote deep learning about the syllabus topics. In this scope, he chose to implement working groups, to which he distributed texts and articles on various topics that students should analyze before the class time and would later present and discuss during class time. The topics were diverse, and could include namely motivation theories, research project design, publicity.

Some of the challenges found in this practice were related to the time spent, since teacher assigned each group an hour of attendance, which usually extended to an hour and a half or more, making it a very time-consuming strategy. In addition, the teacher also had to prepare a huge number of texts in order to support the various groups as well as a correct evaluation of each group. This was absolutely necessary to ensure he could make any kind of correction at the time of the presentations, still ensuring the quality of learning of the remaining students who at the time were learning from the presentation of their colleagues.

In this interview it was possible to perceive that despite the difficulties, he can recognize the students' interest in the method, as well as the quality of the works he saw being carried out, classifying them as very interesting. Students should read in order to ask questions, what increases their knowledge, understanding and deep learning.



Flipping teaching to address the nature of the subject area and promote critical thinking

Professor Carlos Reis, PhD, Faculty of Psychology and Educational Sciences – University of Coimbra

Curricular unit: Philosophy of Education - Educational Sciences Bachelor Course and Theoretical Foundations of Education – Educational Sciences Master Course

Approx. 89 students were enrolled in Philosophy of Education and 30 students attend Theoretical Foundations of Education.

The motivation to implement flipped methods had to do with the nature of the curricular units, that aim to promote writing, reading and debate skills, as well as critical thinking, thus being concerned with teaching to philosophize and not only teaching philosophy.

In order to implement the strategy, students had to read several texts previously to the class. The teacher chooses to distribute texts or text excerpts to the student groups, after a careful reading of these texts, the students should draw up a concept map and discuss the themes addressed. After the discussion, in some cases the teacher also asks the students to write individual essays on the themes to be worked on.

However, there are some challenges in the implementation, namely the number of students in each course unit, as it makes both group work and debating with the whole class difficult. In addition, the teacher also mentioned that another difficulty encountered is related to the fact that some students do not complete the entire task, compromising the group's work.

According to the teacher, students appreciate this practice, and there are also reports of how students recognize how much this type of teaching allows them to learn more autonomously.

The teacher also mentioned that he would recommend this practice to any teacher of any curricular unit, because with planning this can be a useful strategy for different purposes. In addition, he intends to continue using this strategy in the various curricular units, changing the resources involved, namely the various texts he uses to work on the various themes. The only impediment he recognized in implementing this strategy on a large scale was time, since a high degree of planning is required. However, the implementation of this strategy, despite being more time-consuming, pays off in the quality of learning achieved with the students.



References

The Faculty Focus. Special Report. 2015. Flipped Classroom Trends: *A Survey of College Faculty*