

FACULTY FOCUS

Special Report

Flipped Classroom Trends: A Survey of College Faculty

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Flipped Classroom Trends: A Survey of College Faculty

Executive summary

Perhaps no other word has been as popular in higher education during the past few years as the term “flipped.” As a result, there is no shortage of ideas and opinions about flipped learning environments. Some consider it another way to talk about student-centered learning. Others view flipped classrooms as an entirely new approach to teaching and learning. Still others see flipping as just another instructional fad that will eventually run its course.

In the summer of 2014, *Faculty Focus* surveyed its readers to gain a better understanding of their views on flipped learning. The survey also sought to find out who’s flipping, who’s not, and the barriers and benefits to those who flip.

Defining the flipped classroom

One of the most interesting themes that emerged from this survey is the amount of confusion about what “flipped” means. Much of the contention about whether a flipped classroom leads to enhanced learning seems to point toward the different ways educators define or conceptualize it.

When asked to define/describe the flipped classroom in their own words, respondents varied in their description. Some relied on the definitions related to leveraging technology (i.e., videos of lectures), while others described it in terms of active, student-centered, collaborative learning strategies.

The terminology and definitions are causing confusion, but most scholars and survey respondents seem to agree that active learning and student-centered learning approaches are the foundational principles of the flipped philosophy, and the value of this approach is that it can lead to enhanced student engagement, motivation, and learning, if done well.

Key findings

Results from the survey are based on the responses from the 1,089 *Faculty Focus* readers who completed the survey. Highlights include:

- More than two-thirds (69.5%) have tried flipping an activity, class, period, or course, and plan to do it again. Another 5.49% have tried flipping, but don’t plan to do it again.
- Roughly one-third (31.8%) of those who have flipped did so within the past year.

- The majority of faculty who have flipped rated the experience as positive for themselves (70.3%) and their students (64.8%).
- The top reasons for flipping include a desire to increase student engagement (79.3%) and improve student learning (75.8%).
- In terms of the actual benefits, nearly three-fourths did see greater student engagement (74.9%), while just over half saw evidence of improved student learning (54.66%).
- More than 80% said students are more collaborative and 76.61% said they ask more questions, while almost half (48.75%) also noted some student resistance.
- The most frequently reported barrier for faculty who want to try flipping is limited time. Nearly 70% said it was a very significant challenge (38.1%) or a significant challenge (31.61%).
- Of those respondents who are not interested in flipped learning, 38.9% said they don’t know enough about it and 27.4% felt it was a fad.

Methods

This survey was conducted between June 15, 2014, and July 20, 2014. An email was sent to 128,611 *Faculty Focus* subscribers inviting them to participate in the survey. The mailing list consisted largely of faculty at all levels, but also included administrators, instructional designers, and faculty developers. Respondents represented higher education institutions from the United States and Canada, as well as a small number of institutions abroad.

The survey was anonymous, using the SurveyMonkey web tool. It featured 18 questions total, including both qualitative and quantitative formats (multiple choice and open-ended questions). A total of 1,089 people completed it.

Acknowledgements

Faculty Focus would like to thank Barbi Honeycutt, Ph.D., for her invaluable assistance in developing the survey and her contributions in helping analyze the results. Dr. Honeycutt is the founder of FLIP It Consulting and an adjunct assistant professor at North Carolina State University. ❖

Which of these definitions aligns with your interpretation of the flipped class? (Select all that apply.)

One of the most interesting areas of confusion about the flipped class is the definition of the term itself. Much of the contention about whether or not a flipped classroom leads to enhanced learning seems to point toward the different ways educators are conceptualizing what the flip actually means. It's easy to see how respondents can be confused about the definition, given all the different interpretations of the flipped classroom in the literature.

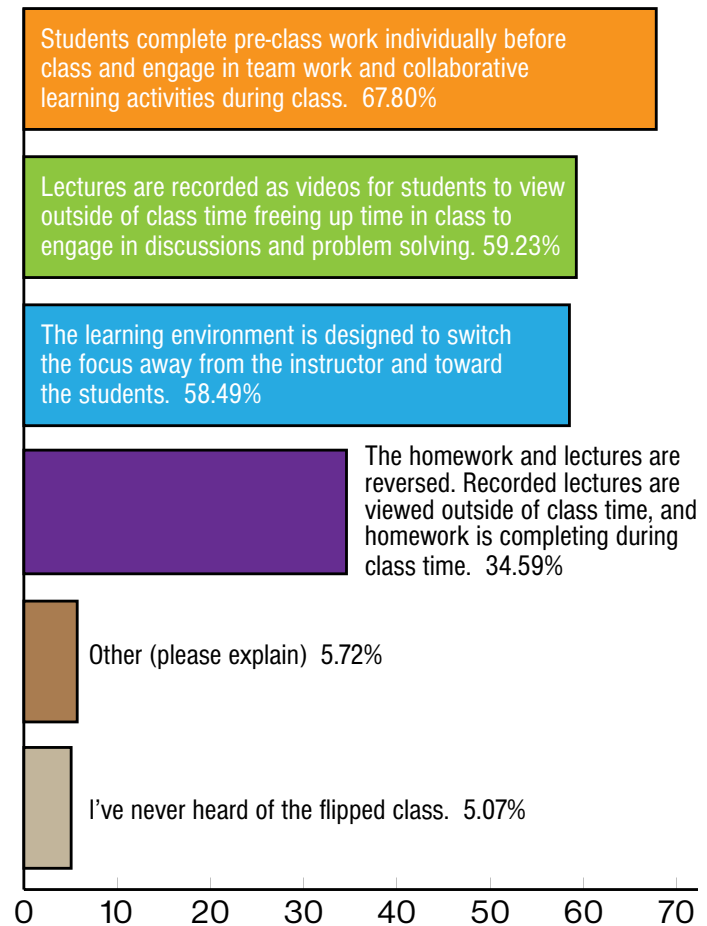
For example, EDUCAUSE®, one of the leading nonprofit associations dedicated to instructional technology in higher education, defines the flipped classroom as follows: “The flipped classroom is a pedagogical model in which the typical lecture and homework elements of a course are reversed... Short video lectures are viewed by students at home before the class session, while in-class time is devoted to exercises, projects, or discussions” (*7 Things You Should Know about Flipped Classrooms*, 2012). However, the flipped classroom is not always defined this way. High school science teachers Jonathan Bergmann and Aaron Sams (2012), authors of *Flip Your Classroom: Reach Every Student in Every Class Every Day*, focus on the flip as a mind-set rather than as a set of strategies or techniques. They define the flip as “about flipping the attention away from the teacher and toward the learner...and leveraging educational tools to enhance the learning environment” (2012).

Before offering our own definition in the survey, we asked respondents to select from a list those descriptions that best align with their understanding and interpretation of the flipped learning model.

Approximately two-thirds of respondents (67.8%) defined the flipped classroom as a model where “Students complete pre-class work individually before class and engage in teamwork and collaborative learning activities during class.”

The second and third most popular definitions were “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” (59.23%) and “The learning environment is designed to switch the focus away from the instructor and toward the students” (58.49%). About a third (34.59%) agreed with the statement “The homework and lectures are reversed. Recorded lectures are viewed outside of class time, and homework is completed during class time.” Lastly, approximately 6% said they have never heard of the flipped classroom.

Which of these definitions aligns with your interpretation of the flipped class? (Select all that apply)



Total: 1,084

When respondents were asked to define/describe the flipped classroom in their own words, their descriptions varied. Some relied on the definitions related to leveraging technology (i.e., videos of lectures), while others described it in terms of active, student-centered, collaborative learning strategies.

As an assistant professor at a four-year private institution noted, “I think all four of the above could be interpreted as a flipped classroom. The intent, as I understand, is to have the students engage the material before class so that the instructor can engage the students during class, taking the focus off the instructor and onto student learning.”

In your own words, briefly describe some of the characteristics of flipped classes.

In order to determine the breadth of awareness that survey respondents had about flipped classrooms, we asked an open-ended question.

The majority of the 1,084 respondents seem to have had some exposure to flipping. Some had read about the approach. Many had tried it with varying degrees of success. Others had been practicing elements of it for years but had previously not encountered flipping terminology. Naturally, there were some survey participants with no prior exposure to flipping.

As can be expected from such a broad pool of survey participants, 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 assistant professor from a four-year public institution described the practice of flipping without getting into the foundational rationale for the approach. He characterized flipping the following way: “Students are assigned video lectures to be completed prior to class time instead of textbook reading. Students engage in collaborative learning activities in class. Teachers facilitate activities.”

Similarly, an associate professor at a four-year private institution wrote that in flipping, “students view the lecture portion and review the main concepts prior to coming to class. This will better prepare them for in-class collaborative work.”

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. For example, an assistant professor at a public, four-year institution defined flipping as “a teaching technique that fosters student-based learning and supports student engagement and ownership of their learning.”

Other descriptions and definitions of flipped classes included:

“Professors create video lessons that students watch outside of class.”

–Law school professor

“I would assume the learning is more student based...i.e. the students provide the information while the teacher guides, confirms, and reinforces learning.”

–Instructor/lecturer at a four-year public institution

“The teacher sets a learning environment in which the student needs to prepare beforehand to bring enough background knowledge into the class so that the teaching in class can focus on a deep learning experience which promotes higher cognitive skills development through discussion, interpretation, evaluation and addressing preconceptions and assumptions.”

–Instructor/lecturer at a four-year public institution

“Intentional, focused, teacher-directed activities outside of class to prepare for meaningful, difficult, student-centered applications and higher level thinking activities inside of class, when the professor is present.”

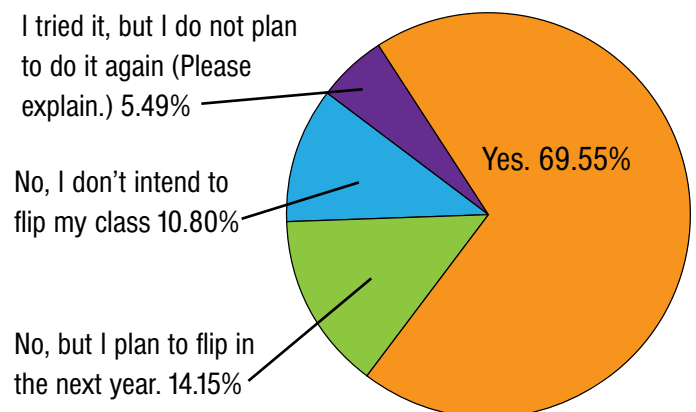
–Faculty developer at a four-year public institution

Have you tried flipping an activity, class, period, or course?

Once we allowed respondents to share their definitions of the flipped learning model, we offered our own in the following statement: For the purposes of the remainder of this survey, we will refer to this definition: “A student-centered learning approach that involves reversing the design of the learning environment, allowing students to engage in activities, apply concepts, and focus on higher level learning outcomes during class time.”

The vast majority of respondents, 75%, said they had tried flipping some element of instruction. Of those, only about 5% indicated that they would not do it again. Another 14.15% of respondents had not yet tried flipping but intended to do so. Just over 10% of respondents had not tried it and did not intend to try it.

Have you tried flipping an activity, class period, or course? (Total: 1,074)



The respondents who tried flipping and would not try it again were given the opportunity to elaborate on their answers. Some instructors reported that the flipped approach did not work because students did not respond to the incentives to prepare for class. Thus, many arrived unprepared, without exposure to the lesson's course content, and therefore could not effectively participate in class activities. Other respondents indicated that many students did not like the approach. Several actually used the word "hate" to describe students' attitudes toward flipped instruction. These respondents did not want to risk receiving negative student evaluations, particularly when the outcomes were no better and often worse than those for lecturing, and abandoned the flipped approach.

Those respondents who indicated that they have no interest in flipped instruction were presented with this additional follow-up question, which allowed us to take a closer look at the negatives experiences, challenges, and, in some cases, perceptions of flipping:

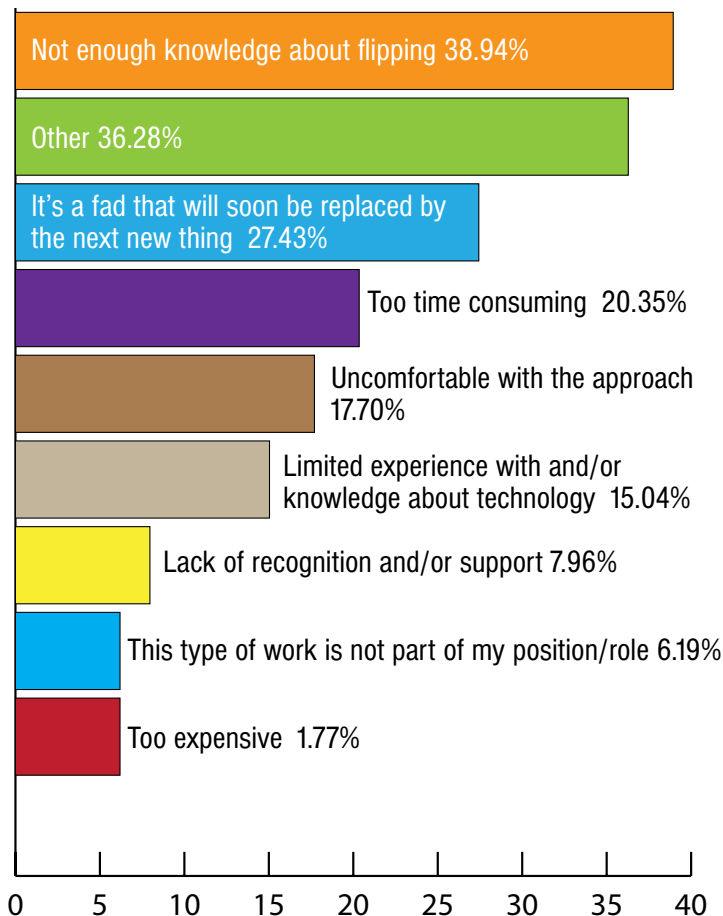
We'd like to know more information about why you are not interested in flipping your class or what prevents you from flipping.

The survey instrument enabled respondents to choose multiple answers from a list of nine options, and the most popular response (nearly 39% of this subset of respondents or 44 individuals) was that the respondents did not feel knowledgeable enough about flipping to try it.

The next most popular choice was "other." This option allowed respondents to elaborate, and many reiterated the frustrations they noted in the comments above. Common criticisms included challenges to the very premise of flipping, which requires that students first encounter course content prior to class. Some critical respondents indicated that despite built-in incentives, students still came to class unprepared. Others said their students provided negative feedback about the method and indicated in course evaluations that they preferred traditional lectures to flipped instruction.

Resistance and frustration seem to stem from the lack of a unified definition of the "flip." If a respondent defined the flip as the recording of lectures for students to watch before coming to class, or if technology is seen as the only way to flip a class, then the response was more negative.

We'd like to know more information about why you are not interested in flipping your class or what prevents you from flipping. Select the statement(s) that best explains your decision. (Check all that apply). (Total: 113)



Not all respondents revealed negative opinions about flipping. As they did with answers to the previous question, some instructors noted that they do incorporate elements of flipped instruction but prefer to use different terminology to describe their methods. In this case, the resistance to flipping is purely semantic, as respondents who already employ some of the flipping methodologies resist what can appear to be trendy new vernacular to describe practices they've espoused for years. One social sciences professor at a private, four-year institution said, "I don't refer to the student-centered problem-based learning I strive to achieve in my classroom as 'flipped.'"

More than a quarter of respondents, 27.43%, chose the option that "It's a fad that will soon be replaced by the next new thing." As the open-ended responses suggested, some instructors question whether flipping will stand the test of time and become an integral instructional approach. Some

respondents commented on the term “flip” as a fad, but the underlying principles are grounded in sound pedagogical theory. An associate professor at a four-year public institution noted, “The lines have become blurred and people talk about flipped classroom in ways it was never originally designed. The technology-enhanced, non-rigorous flipped classroom should not be confused with research-based active learning pedagogies.”

Just over 20% of respondents said flipped instruction was too time consuming, a sentiment that was reiterated again later in the survey with a question that asked about the challenges and barriers to flipping. Another 17.7% of survey participants said they were uncomfortable with flipping; some of the reasons for this emerge deeper into the survey.

About 15% of respondents blamed a lack of familiarity with technology for their reluctance to try flipping. This hints at a common flipping approach in which instructors videotape their lectures and make them available to students to consume before class. While flipping does not require the use of pre-recorded lectures or even the use of technology to deliver course content, the popularity of this strategy among flipping advocates might lend the impression that the tactic is fundamental to flipping even though it theoretically (and even practically) is not. Another segment of respondents, nearly 8%, cited a lack of recognition or support as a barrier, suggesting that flipping was still a peripheral approach on their campuses. About 6% of respondents said that flipped instruction fell beyond the scope of their positions or responsibilities, and fewer than 2% blamed expense.

When did you first implement the flip?

The largest group of respondents first tried the flipped approach within the past year. Interestingly, the second-largest group, 29.19% of respondents, actually implemented the flip more than three years ago. The next-largest group, comprising more than 17% of respondents, first flipped more than two years ago. This validates some of the earlier comments from instructors who have been using flipping strategies without the flipping terminology for years. This suggests that while the name for the practice is new, the practices themselves are not.

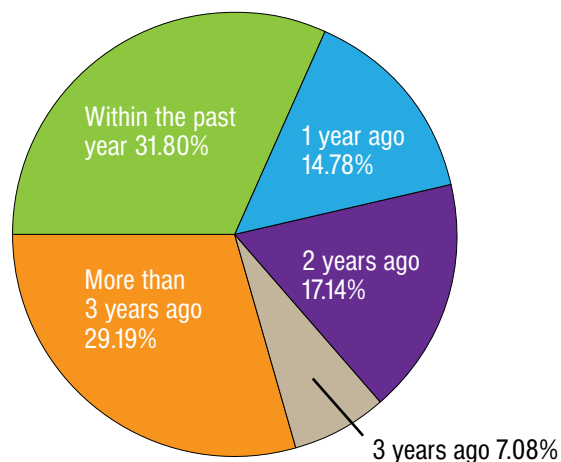
For example, some respondents indicated that they have been using elements of flipped instruction over the course of their teaching careers and would continue to do so. A chemistry instructor at a two-year community college said, “I do not have a full-fledged flipped class for any of my courses. I do on occasion have individual activities (especially for laboratory) where I used a flipped approach, because some

of those concepts are best delivered that way.”

Other respondents simply bristled at the “flipping” terminology rather than at the flipped approach itself. A recently retired professor who taught social sciences at a two-year technical college noted, “I don’t need to ‘flip’ my classroom, as I have been a ‘student-centered’ teacher my entire teaching career.”

Otherwise, nearly 15% of respondents first flipped a lesson, class, or course about a year ago, while just over 7% tried the approach three years ago.

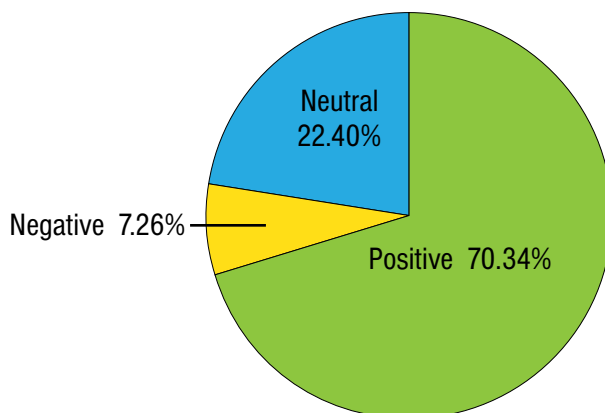
When did you first implement the flip? (Total: 805)



How would you rate the experience for you?

More than 70% (562) survey respondents indicated that flipping is a positive teaching and learning experience. Only 7.26% reported that it was a negative experience. However, 22.4% of respondents called the experience “neutral.”

How would you rate the experience for you? (Total: 799)



The comments to this question offered more interesting detail about how respondents experienced flipping. Many identified positive outcomes but indicated that success was usually proportional to their investment in the approach. One respondent captured the idea succinctly, noting that flipping was “exhausting but engaging.”

A psychology professor from a four-year public institution reiterated that idea. “It was a lot of work but a creative experience, and I enjoyed getting away from lecturing.”

Many respondents reported that student engagement grew and outcomes improved. An assistant professor of organic chemistry at a four-year public institution noted that the “passing rate has increased from 69% to 92% in my 110 students organic chemistry classes, [and] student evaluation was 3.92 out of 4.”

However, not all experiences were positive. A full professor of psychology at a private, four-year institution was overwhelmingly displeased with the approach, writing that “students wanted me to lecture, tell stories, ask questions, and stimulate discussion. They did not want to try and learn the material themselves. They did not feel empowered. They did not see me as a co-participant,” the professor noted. “They wanted me to be in charge.”

That same professor even cited a course evaluation in which a student wrote, “I paid for your expertise and you have a lot of it; please share it with me.”

Some of the sentiments were mixed. Multiple respondents indicated that when students were prepared, flipping worked well. However, if students did not respond to the internal incentives to prepare prior to class, then flipped instruction was more challenging and less effective than lectures. For example, an instructor at a public, four-year Canadian research-intensive university pointed out a common frustration. “It’s very dependent on how well students can be motivated to do the work outside class. When they’re not willing, it’s worse than traditional methods.”

Indeed, one consistent area of concern among faculty is student motivation. The attitude seems to be that if students don’t do “traditional” homework assignments that involve reading, writing, and preparing for class, what makes us think they would watch a video or prepare for class using different approaches just because we call it a “flipped” classroom?

An associate professor at a four-year private institution agreed that while class activities could advance learning to higher levels, it didn’t work all the time or for all students. “Some students just refused to prepare, expecting to be able to hide in the bushes during class,” she said. “Others were happy to discuss but wanted to get off the track and stay with stuff they already knew—stay in their comfort zone. Shy students did not react well.”

Finally, several survey participants indicated that flipping has always been a part of instruction, particularly in the humanities, and the sudden emphasis on it and new

terminology for it is curious. A program director at a private, four-year institution wrote, “[T]he humanities have been using a ‘flipped model’ forever.”

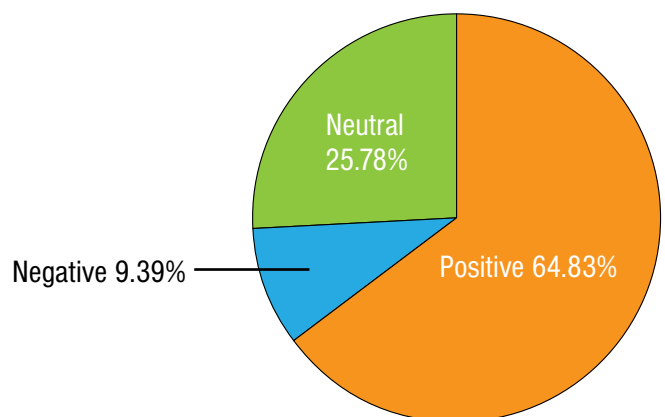
So while these experiences with flipping were not negative, this group of respondents did not experience the novelty that those new to flipping did. Their neutral responses suggest that isolating flipping and determining how it affected the overall teaching experience might be an irrelevant practice for those who have already integrated it into their instruction.

An English professor at a private, four-year institution finds the fuss over flipping overblown. “I am a humanities professor. Our method of seminar teaching (read outside of class, discuss and problem solve in class, start writing process in class) is the tried-and-true methodology in the literature seminar. It is hilarious to me that it took a physics professor to ‘discover’ what the humanities has known all along, that students retain little from lectures and that active learning ‘makes it stick.’”

How would you rate the experience for your students?

Nearly 65% of respondents indicated that flipping was a positive experience for their students. Just over a quarter, or 25.78%, of respondents said the experience was neither better nor worse for their students. The remaining 9.39% of respondents indicated that the experience was negative.

How would you rate the experience for your students? (Total: 799)



As they did for the previous question, the comments to this question yielded greater insight into respondents’ feelings. By and large, survey participants who rated flipping a positive experience for students indicated that students were more engaged. They learned more and enjoyed the opportunity to

work with peers and explore new learning techniques.

Student feedback, as reported by survey participants, was resoundingly advantageous. For example, an associate professor at a public four-year institution said that students provided “uniformly positive remarks about the new format, including the highest course eval[uations] I’ve ever seen.”

Yet even those who rated flipping well admitted that there were shortcomings. One adjunct professor at a two-year institution viewed flipping positively overall but acknowledged some mixed feelings about its effectiveness for certain groups of students.

“Students in my face-to-face classes thrive on an active learning environment in which they are engaged in a variety of activities,” she said. “Students in my online classes, however, struggle with engaged and active learning, which requires them to collaborate with others in a nonsynchronous environment. I meet with resistance when I expect them to engage with others in discussions or complete group work.”

Some of those participants who rated flipping negatively reported that students did not respond to motivations to come to class prepared. When that happened, the entire model fell apart.

That was the experience of a full professor at a two-year technical college who tried flipping and will not try it again. “Those who prepared were a small minority and—as always—those who weren’t prepared got the majority of my time and attention because I had to get them busy on doing what they had not done for class.”

Other critics argued that students new to the model resented the work required of them and still expected their professors to be experts who bestow knowledge and guidance. Others argued that students who came to class unprepared fared worse in a flipped environment because they were forced to work with course content without any prior exposure to it. This anticipated embarrassment and stress prompted some students to avoid class, which is an unintended consequence that can lead to worse learning outcomes for students.

The sizable portion of the neutral respondents indicated no strong feelings about flipping but found that their students simply preferred lectures or a mix of lectures and in-class assignments. Others reiterated that flipping is not new—an idea from a small group of respondents that threads through the entire survey—and that many instructors had long since incorporated these kinds of in-class techniques into their repertoires. These are the respondents who like flipping, but who believe it is merely a new name for a familiar practice.

Why did you decide to start flipping?

The survey instrument invited respondents to identify

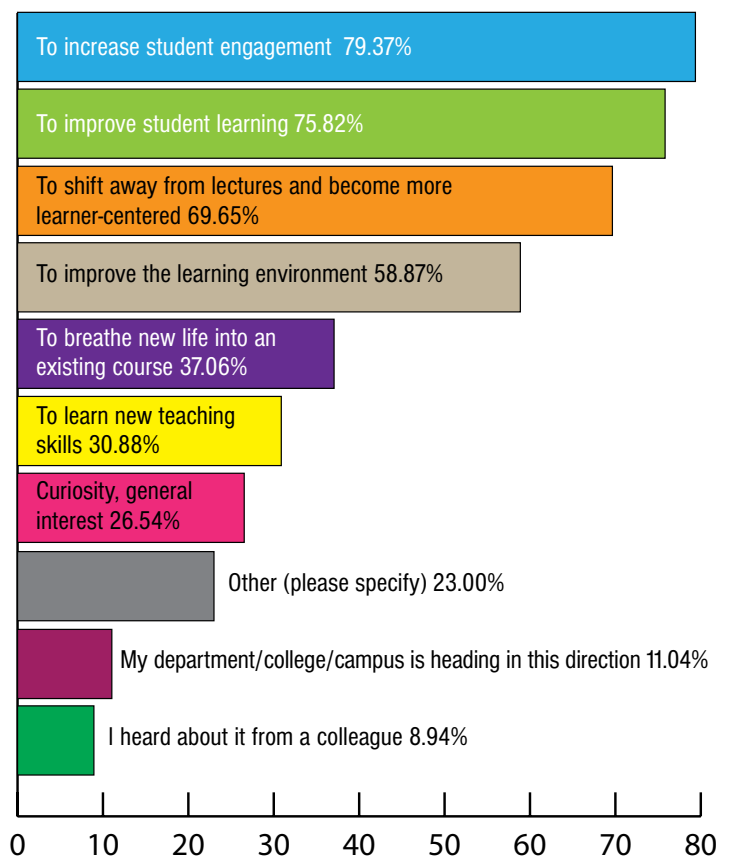
reasons for flipping, and participants could select more than one answer. The responses reveal that most survey participants were driven by a desire to better engage students (79.37%) and to improve student learning (75.82%). These results align with our own definition of flipping established at the start of the survey.

Nearly 70% 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-centered. Improving the learning environment was a goal for nearly 60% of respondents. The most popular answers reflect a desire to improve not only actual learning but also the learning experience for students.

The next two most popular choices revealed a desire from faculty to keep teaching and learning fresh. For example, just over 37% of respondents chose flipping as a way “to breathe new life into an existing course”, while about 30% wanted “to learn new teaching skills”.

Some respondents (26.4%) simply tried the approach out of curiosity, while others felt institutional pressure to try flipping and selected “My department/college/campus is heading in this direction.” About 9% tried flipping after learning about it from a colleague.

Why did you decide to start flipping? (check all that apply) (Total: 761)



Indicate the extent to which you agree or disagree with the following statements related to students in your flipped course

They are more engaged

Respondents overwhelmingly found students in flipped classrooms to be more engaged than students in traditional classrooms. More than half (51.64%) of respondents agreed strongly with the statement, and another 38.5% agreed somewhat. Less than 10% of respondents disagreed at all, with 5.65% disagreeing somewhat and 4.2% disagreeing strongly.

Their grades are improving

The majority of respondents saw a positive correlation between the flipped classroom and student grades. More than 58% agreed somewhat and 19% agreed strongly that grades improved for students in flipped classrooms.

However, there was some dissent among the survey participants. Nearly a quarter of respondents did not see a relationship between flipping and better grades. Of this group, 17.35% disagreed somewhat with the statement, and another 5.26% disagreed strongly.

They are resistant

Survey participants were split almost evenly on whether students are resistant to flipping. Nearly half indicated that they either somewhat agreed (38.11%) or strongly agreed (10.64%) with the statement. Slightly more than half disagreed, with 34.95% of respondents disagreeing somewhat and 16.29% disagreeing strongly.

They adapt to the approach

Again, with 85% agreeing with the statement, respondents overwhelmingly believed that students could adapt to a flipped classroom. Nearly 30% strongly agreed that students adapt to flipping, while 55.45% agreed somewhat. Less than 15% disagreed at all, with 11.96% disagreeing somewhat and only 2.76% disagreeing strongly.

They ask more questions

Respondents also believed students asked more questions in a flipped classroom than in a traditional classroom. Approximately 40% somewhat agreed with the statement, while 37.19% agreed strongly that students asked more questions in a flipped learning environment. Less than a quarter of survey participants disagreed, with 19.32% disagreeing somewhat and 4.07% disagreeing strongly.

They come to class more prepared

Many survey participants also found that students arrived better prepared for a flipped class. Nearly a quarter strongly agreed with the statement, while 42.97% agreed somewhat. However, the responses were not entirely positive, reflecting some of the flipping criticisms (e.g. that some students will not prepare regardless of the motivations built into the course) present throughout the comments to the survey. Nearly a quarter (23.92%) disagreed somewhat, and 8.54% strongly disagreed that students are better prepared in a flipped classroom.

They are more collaborative

The vast majority (more than 80%) of respondents believed that flipping encourages students to be more collaborative. More than 39% strongly agreed and 43.89% agreed somewhat with the statement. Only 13.14% disagreed somewhat, and even fewer (3.81%) disagreed strongly. These answers reflect the actual practice of flipped instruction, which almost always involves regular group work during class time. Students have more opportunity to collaborate in a flipped classroom, and the frequent practice could improve their collaboration skills.

They see the value of this type of experience

Nearly three-quarters of survey participants felt that students are aware of the value of a flipped classroom. More than half (50.07%) agreed somewhat and 23.13% agreed strongly. However, there was some disagreement. Slightly fewer than 21% disagreed somewhat that students recognize the value of a flipped classroom, while 6.04% disagreed strongly.

They are comfortable using the technology

Respondents largely do not perceive technology to be a concern for students in a flipped classroom. More than half agreed somewhat and 32.19% agreed strongly that students are comfortable with the technology used in flipped classrooms. Less than 20% disagreed at all, with 12.61% disagreeing somewhat and only 4.73% disagreeing strongly. Some comments to other questions in this survey reflect the concern that flipping presumes students will have access to computers and tablets outside of class, and students are disadvantaged in the flipped classroom when they don't.

They build relationships/community

Again, survey respondents identified another benefit of the flipped classroom. Nearly 80% indicated that students build relationships and community when in a flipped learning environment, with 48.36% agreeing somewhat and 31.41% agreeing strongly. Around 20% did not find that to be true, with 15.25% disagreeing somewhat and 4.99% disagreeing strongly.

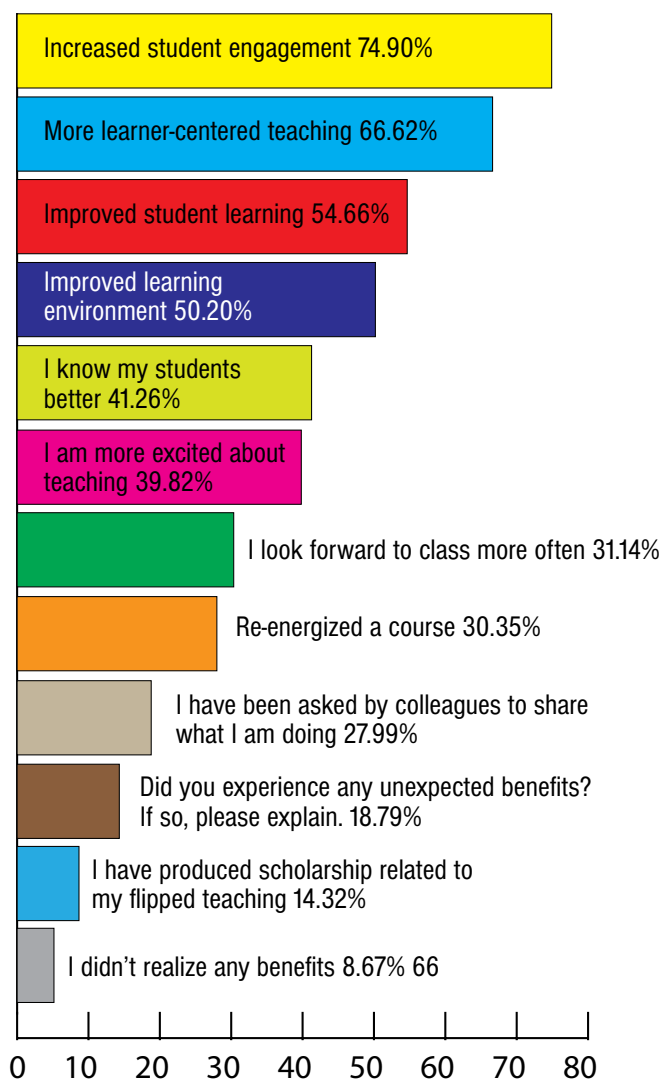
Indicate the extent to which you agree or disagree with each of the following statements related to students in your flipped course(s): (Total; 761)

	Agree strongly	Agree somewhat	Disagree somewhat	Disagree strongly
They are more engaged	51.64%	38.50%	5.65%	4.20%
Their grades are improving	19.05%	58.34%	17.35%	5.26%
They are resistant	10.64%	38.11%	34.95%	16.29%
They adapt to the approach	29.83%	55.45%	11.96%	2.76%
They ask more questions	37.19%	39.42%	19.32%	4.07%
They come to class prepared	24.57%	42.97%	23.92%	8.54%
They are more collaborative	39.16%	43.89%	13.14%	3.81%
They see the value of this type of experience	23.13%	50.07%	20.76%	6.04%
They are comfortable using the technology	32.19%	50.46%	12.61%	4.73%
They build relationships/community	31.41%	48.36%	15.24%	4.99%

What were the biggest benefits experienced from flipping?

The survey offered participants 10 different choices and the option to select multiple answers. Most of the respondents indicated that flipping positively influenced student learning and the classroom-learning environment. More specifically, nearly three-quarters (74.90%) of respondents indicated that their students were more engaged when learning in a flipped environment. Two-thirds (66.62%) felt that flipping created a more learner-centered class environment, and just over half (54.66%) believed that the method improved student learning as well. Half of respondents indicated that flipping improved the learning environment. 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?).

What were the biggest benefits experienced from flipping? (check all that apply) (Total: 761)



Survey answers revealed that respondents personally benefited from flipping, too. Many instructors (41.26%) indicated that through flipping they were able to get to know their students better. Nearly just as many (39.82%) reported that flipping made them more excited to teach. Almost a third (31.14%) of participants indicated that they looked forward to class more often when they incorporated flipping into their pedagogy, and nearly as many (30.35%) said that flipping re-energized their courses.

Many respondents (27.99%) indicated that their colleagues not only took notice of their flipping but also asked respondents to share their methodology. Another 14.32% were able to produce scholarship about the approach and their experiences.

Some survey participants who tried flipping identified advantages they did not expect. One respondent from a public, four-year university indicated that he could cover more material when he used a flipped approach. Another full professor in visual and performing arts from a private, four-year institution said that the process of preparing lectures for preclass consumption actually improved the delivery of live lectures (e.g., phrasing and posture) as well. Still another lecturer from a public, four-year institution noted that flipping was particularly beneficial to individuals with learning disabilities or who were not native English speakers. “Dyslexic [students] and students with English as a second language,” he said, “closed the performance gap by, on average, a whole grade boundary.”

However, not all unanticipated outcomes were beneficial. When given the opportunity to elaborate, some respondents indicated that flipping is a great approach for students who are already motivated but less so for the others. Others responded that they did not anticipate the amount of preparation that flipping would require. According to an associate professor at a private, four-year institution, flipping “requires much more work on the front end than simply preparing and delivering a lecture.”

Another instructor from a public, four-year institution agreed. “There is more work involved,” the respondent wrote. “It takes more preparation and more emotional energy to be this involved with students.”

What challenges do you face when you think about flipping your class?

Many barriers exist for faculty who want to experiment with innovative teaching approaches. The move to a flipped classroom isn’t an easy transition for many faculty. They may not be supported by their department head, dean, or academic leader. They may not be rewarded or recognized

for taking time to develop innovative approaches to teaching. They may not receive funding/support to embark on a full-course redesign.

In an effort to identify the biggest barriers to flipping, this question asked participants to indicate which challenges exist and to rate how significant those challenges are.

Respondents identified several limiting factors, the greatest of which was time. More than 38% of survey participants indicated that time was very significant and always a challenge. Another 31.61% said time was significant and often a challenge. That is nearly 70% of all respondents who see time as a frequent, if not constant, barrier to flipping. Another 19.38% of respondents said time was sometimes a factor, rating it a moderate challenge, while just over 10% said it was never a challenge. This echoes earlier open-ended responses, in which instructors who tried flipping indicated that it was more time-consuming than they had anticipated (and than traditional lecturing).

Respondents indicated that other professional responsibilities required by their positions were the next most common barrier. Just over half said that this was a significant (29.19%) or very significant (21.7%) challenge, while another 28.19% said it was a moderate challenge. About one of every five respondents (20.93%) said competing responsibilities were insignificant barriers or rarely a challenge.

Respondents also identified that the idea of flipping made them feel pressure to be creative and develop new strategies and ideas. Nearly 45% of all respondents indicated that these tactical concerns about implementing the activity-based approach challenged them significantly (29.85%) or very significantly (14.98%). About another third (33.26%) believed the need to be creative and introduce new strategies would be a moderate challenge for them.

Survey participants conveyed a fear that students might resist the approach or lack the motivation to do the pre-class work that would first expose them to course content. While more respondents show greater concern regarding time and conflicting priorities, concerns about student resistance and lack of motivation were also significant. More than 80% of respondents indicated that they worried about student objections or ambivalence when they considered flipping instruction. Even so, it doesn’t appear that the group of respondents found these challenges to be insurmountable. The largest group (37.78%) considered these challenges to be moderate, while just over a quarter found them significant (26.43%) and fewer still (18.06%) found them to be very significant.

Other issues, such as lack of institutional support evidenced by insufficient resources, funding, or space, were concerns for more than two-thirds of survey participants, although much of this group (30.4% of all respondents) characterized those insufficiencies as moderate challenges. Only 16.3% identified a lack of institutional support as a very significant challenge, and 22.36% considered it a significant challenge.

More than half of the respondents revealed some apprehension regarding technology, with 37.11% of survey participants considering it a moderate challenge. Another 16.96% found their experience or comfort level with technology to be a significant challenge, and yet only 4.19% considered it to be a very significant challenge. This response echoed some of the open-ended comments from earlier questions in the survey. While flipping does not require the use of new technology, teaching in higher education today means it can and often does. Some instructors who flip incorporate prerecorded lectures and other audio and visual tools during in-class assignments. For educators with limited exposure to new technologies, this can seem daunting. Also, adjunct instructors, who lack awareness of or access to campus educational technology resources, might feel pressure to invest in technologies or training on their own time and with their own resources.

Respondents indicated that they were less concerned about colleagues or administrators misunderstanding or undervaluing the practice. Nearly half (47.25%) indicated that “not being valued” was rarely a challenge, while 41.63% reported that being misunderstood was almost never a problem, either. These issues were sometimes challenges that survey respondents faced, but only 16.74% (value) and 19.16% (understanding) found them to be significant. Fewer still (8.15% and 10.13%) said that undervaluing or misunderstanding flipping was a very significant concern that always created challenges.

Less than half of respondents found competing goals a problem, with more than half of those (or 26.98% of total survey participants) characterizing that conflict as only a moderate challenge.

What challenges do you face when thinking about flipping your class? (Total: 908)

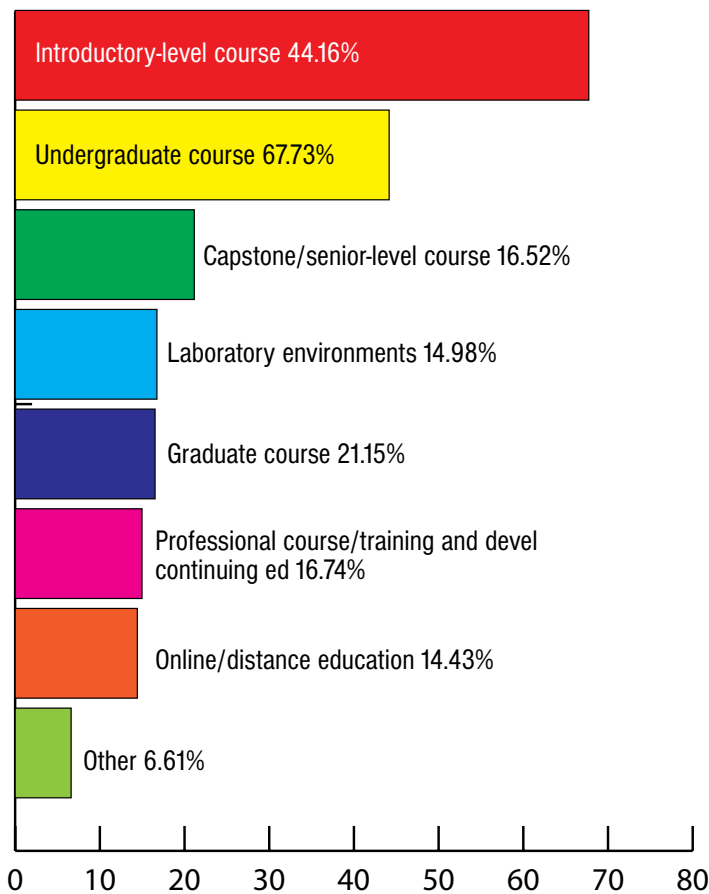
	Very Significant/Always a challenge	Significant/Often a challenge	Moderate/Sometimes a challenge	Insignificant/Rarely a challenge
Time	38.11 %	31.61 %	19.38 %	10.90 %
Lack of support (resources/funding/space)	16.30 %	22.36 %	30.40 %	30.95 %
Competing department/college/campus goals	7.93 %	14.76 %	26.98 %	50.33 %
Not valued by colleagues/administration	8.15 %	16.74 %	27.86 %	47.25 %
Not understood by colleagues/administration	10.13 %	19.16 %	29.07 %	41.63 %
Being creative/developing new strategies and ideas	14.98 %	29.85 %	33.26 %	21.92 %
Student resistance/lack of motivation	18.06 %	26.43 %	37.78 %	17.73 %
My experience/comfort with technology	4.19 %	16.96 %	37.11 %	41.74 %
Other responsibilities required by my position	21.70 %	29.19 %	28.19 %	20.93 %

What type of courses have you flipped or plan to flip?

About two-thirds of respondents had flipped or planned to flip an undergraduate course. Introductory courses were popular (44.16%), but survey participants indicated that a broad range of courses had been or would be flipped. These included graduate courses (21.15%), capstones and other senior-level courses (16.52%), professional development (16.74%, which included training and continuing education), labs (14.98%), and online education (14.43%).

Open-ended responses indicated that educators were considering flipping in medical and law school, hybrid courses, and developmental courses.

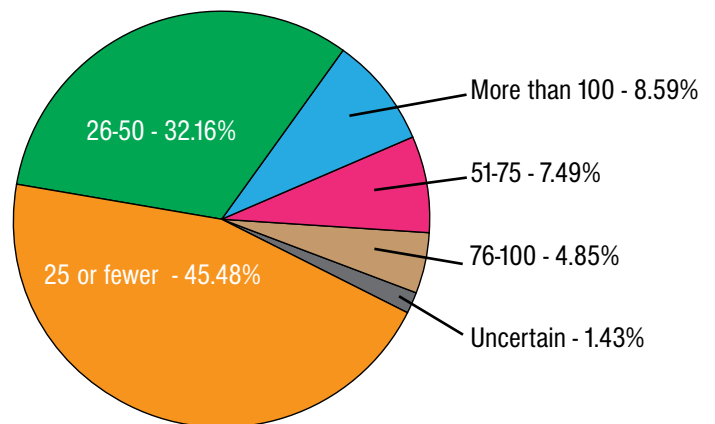
What types of courses have you flipped or plan to flip? (check all that apply) (Total: 908)



How many students were in the course(s) you flipped or plan to flip?

Nearly half of respondents (45.48%) either had flipped or planned to flip a class with fewer than 25 students. The next largest group (32.15%) had used or would use flipping in classes with 26 to 50 students. Only around 20% would consider or had tried flipping in larger classrooms, with 7.49% finding it appropriate for 51 to 75 students and 4.85% feeling the same about 76 to 100 students. Even though instructors seemed to favor flipping for smaller groups of students, 8.59% of respondents saw a use for flipping in large classes with more than 100 students.

How many students were in the course(s) you flipped or plan to flip? (Total: 908)



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. Again, time is a factor for instructors with heavy teaching loads, pressure to publish and focus on research, and/or full-time jobs outside of academia. Several identified a need for adequate training and ongoing profes-

sional 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. An adjunct instructor at a for-profit institution said, “I spend a huge amount of time looking for and developing activities.”

Of course, none of this comes without cost, and survey participants accurately and repeatedly noted that more flipping very often requires extra money, time, or resources. “Flipping can be initially resource-hungry,” said a full professor at a public four-year institution in New Zealand. “Funding is essential”

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. One full professor at a two-year institution prepares her own video lectures, but she noted that her files were very large, which can inhibit uploading and downloading.

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.

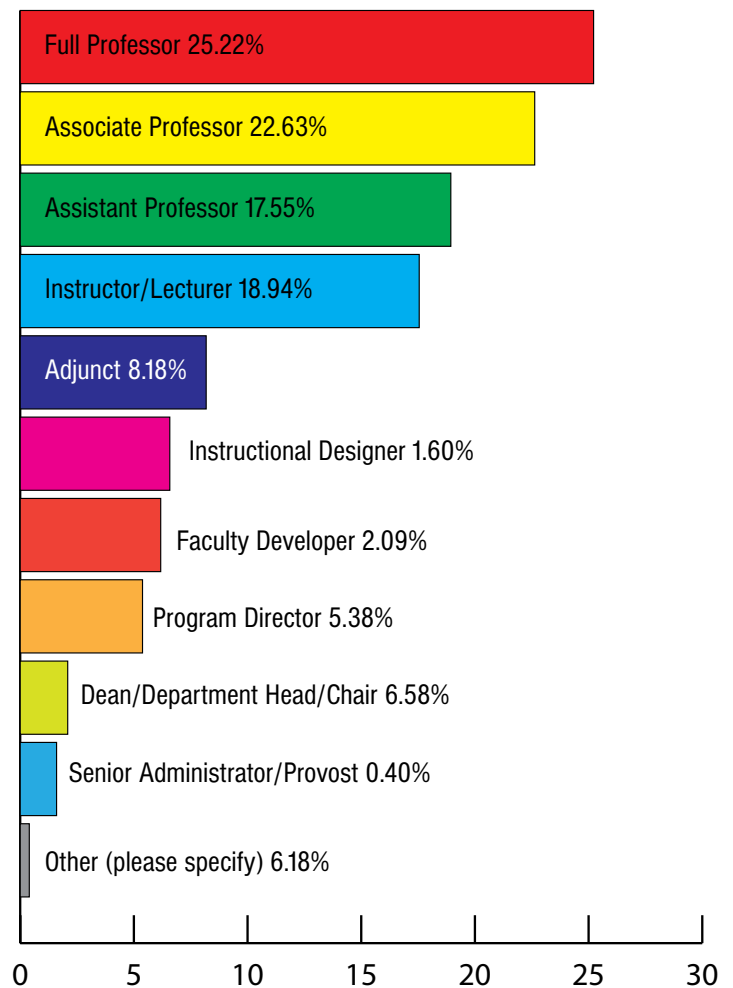
Select the title that most closely reflects your current position in higher education.

Because it was a survey of *Faculty Focus* readers, it was no surprise that nearly all respondents chose a job title that suggested some teaching responsibility. Full professors made up the largest group, with 253 individuals, or 25.22% of total survey respondents. Right behind, with 22.63% of

responses, were associate professors. A few more instructors or lecturers (190, or 18.94) responded than did assistant professors (176 or 17.55%). Adjunct professors made up about 8% of responses.

Less than 10% of all respondents held job titles that related to instruction but did not appear to involve teaching, such as program director, instructional designer, or senior administrator.

Select the title that most closely fits your current position in higher education: (Total: 1,003)



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 (23.03%) represented health professions and related programs. The next largest group, with nearly 13% of respondents, represented education. Just over

12% came from business, management, marketing, and related disciplines. About 8% worked in the biological and biomedical sciences.

After that the numbers drop off sharply. Just over 5% came from the physical sciences. About 5% came from English language/literature (4.99%) as well as mathematics and statistics (also 4.99%). The social sciences had one fewer respondent (49 as opposed to 50) and represented 4.89% of the total. Psychology was next with 42 respondents (4.19%), followed by computer and information sciences and support services as well as visual and performing arts, each with 33 respondents and 3.29% of the total. Individuals from communications, journalism, and related programs comprised just over 3% of the total, and respondents from engineering made up just under 3%.

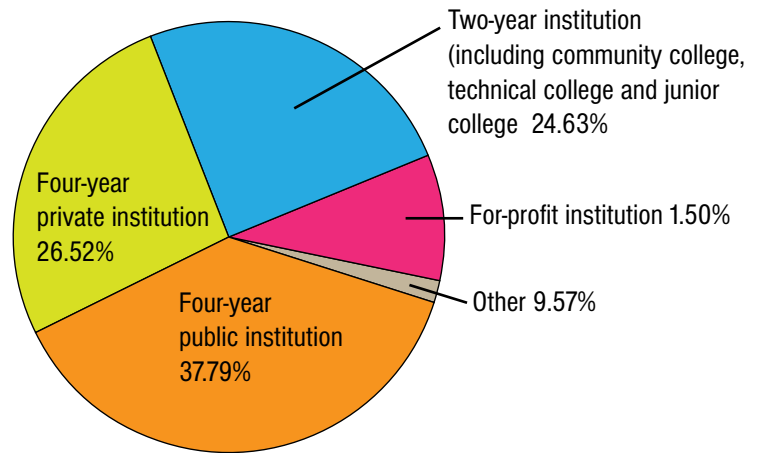
There was double-digit representation from a few fields, including the liberal arts, legal professions, and foreign language, literature, and linguistics. History, philosophy and religious studies, and engineering technologies ranged between 1.69% and 1.1% of respondents.

Which best describes your institution?

Survey respondents represented the wide range of institutions that make up the higher education industry. The diversity among the respondents suggests that flipping is an increasingly pervasive teaching method that transcends institutions and disciplines.

The largest group of survey respondents (37.79%) was from public, four-year colleges and universities. The second largest contingent (26.52%) was from private, four-year institutions. Nearly a quarter represented two-year schools, including community colleges, technical schools, and junior colleges. Only 15 of more than 1,000 respondents were from for-profit schools, while fewer than 10% worked at a variety of other institutions, including private professional schools, graduate schools, and international institutions.

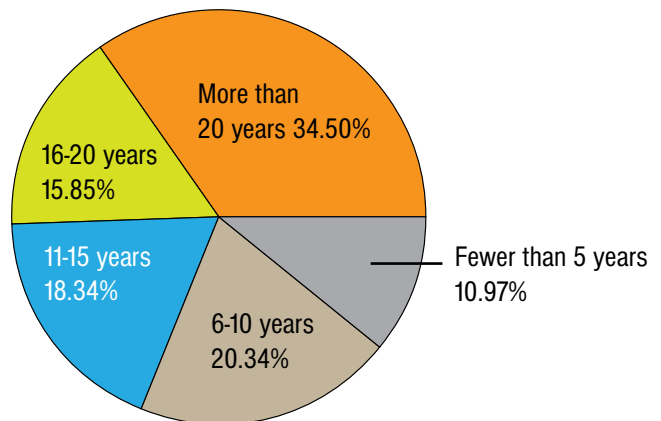
Which best describes your institution: (Total: 1,003)

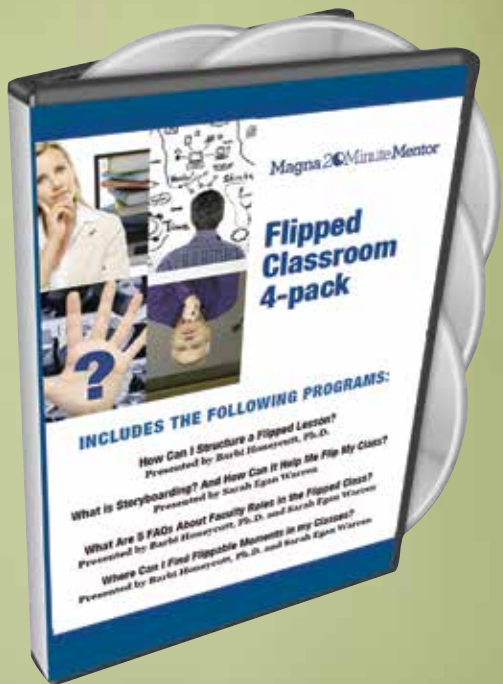


How many years have you worked in higher education?

This survey had an experienced group of respondents. Around 70% of all respondents had more than 10 years of higher education experience. Each of the individuals in the largest response group, comprising more than a third (34.5%) of all respondents, had more than 20 years of academic experience. An additional 20.34% had between six and 10 years of experience, while more than 18% had been working in higher education for 11 to 15 years. Another 15.85% of respondents had between 16 and 20 years of experience. Just under 11% had been working in higher education for fewer than five years.

How many years have you worked in higher education? (Total: 1,003)





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