

# **The Impact of the Flipped Classroom on the Instructor: Challenges and Strategies**

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## **Abstract**

Much has been written about the impact of the flipped classroom on student learning. In this piece, however, we reflect on the impact of the flipped classroom on the instructor. Drawing on our classroom experiences, we share our insights about what the flipped classroom means for *instructors* in terms of how they perceive themselves and their relationship with their students: the challenges posed; practical strategies to address those challenges; and, most importantly of all, the learning fostered by this model.

## **Keywords**

flipped classroom; characteristics of effective instructors; teaching challenges; teaching strategies

## **Introduction**

Educators and institutions of higher education are continually challenged to find new ways to engage students in the classroom in higher-level thinking and learning. Flipped learning is gaining popularity as one means of achieving this engagement. This approach transforms the group learning space of the traditional classroom into an individual learning space, where each student becomes empowered to take responsibility for their own learning. The objective is to create a dynamic, interactive classroom where the instructor guides students as they apply concepts to solve problems in a creative and critical manner.

The origin of the flipped classroom concept can first be found in scholarly works regarding the “classroom flip” by Baker (2000) and “inverted classroom” by Lage et al. (2000). Both works focused on increasing student engagement and focus by flipping or inverting activities traditionally performed inside and outside of the classroom. Baker (2000) suggested lecture materials should

be delivered outside the classroom, using online lectures, online threaded discussions, and online quizzes. Inside the classroom, the instructor can then serve as a guide, facilitating the students' further understanding and application of these homework activities.

Abeysekera and Dawson (2015) defined the flipped classroom as a pedagogical approach, encouraging the transmission of information outside the classroom, and students' active learning activities inside the classroom. Outside the classroom, students learn key concepts and information using video lectures, screencasts, or homework. Inside the classroom, instructors act as facilitators, engaging students in problem solving activities to apply the knowledge acquired through their homework.

In a study of 28 articles related to the flipped classroom, O'Flaherty and Phillips (2015) found that various pre-class preparation methods were used to enhance classroom interactivity and academic performance. These included pre-recorded lectures, captured videos, case-based presentations, simulations, and annotated notes. Activities utilized inside the classroom involve case-based presentations, team-based discussions, panel discussions, expert-led discussions, role-plays, and debates. For many of these activities, real-time formative assessments using smartphone apps, tablets, and clickers were employed to provide immediate feedback to students. One study proposed that the students' satisfaction of flipped classroom learning could be influenced by the structure and format of learning materials (Hung, 2014).

Evidence suggests that students generally have a positive perception of the flipped classroom (O'Flaherty & Phillips, 2015; Telford & Senior, 2017). This approach fosters more active student engagement in the learning process than the traditional model (Hung, 2014) and results in higher grades (Tune et al., 2013). However, the last argument—that a flipped learning approach results in higher grades than a conventional approach—has been questioned. For example, in a comparative study involving one flipped section and two non-flipped sections in an undergraduate business course, Findlay-Thompson and Mombourquette (2014) conducted interviews with flipped section students and compared students' average grades on all components, including exams, final grades, quizzes, debate, etc. Although researchers had expected higher grade outcomes for students in the flipped section than the non-flipped sections, the findings showed no grade differences between the flipped section and two non-flipped sections.

Nevertheless, students in the flipped section did feel as though they had more opportunities to interact with their peers and professor in class and to ask for their help. In the comparative study cited above, seven students from the flipped section were interviewed, and the majority of them expressed somewhat positive perspectives in terms of their experience and the interactions they had with their peers and professor. However, some participants were concerned that they had to do more work in the flipped classroom setting without seeing an improvement in their grades. One mature student strongly preferred the traditional classroom approach and would not enroll in a flipped classroom in the future. Nonetheless, Mok (2014) observed a high level of student engagement: "a change in the learning culture," whereby students began to take responsibility for their own learning (p. 9). His observation builds on Lage et al.'s (2000) earlier conclusion that most students favoured the flipped classroom format and enjoyed their peer group work component—a conclusion which leads these researchers to suggest that instructors will also favour the flipped classroom because students tend to be more motivated and responsible.

However, instructors have also identified some challenges in teaching the flipped classroom. For example, additional time and technology support are needed to develop and grade activities because the flipped approach increases frequency of assessments and dependence on technology for outside classroom activities (Ferrerri & O'Connor, 2013). Moreover, at least one

researcher points out that it is very easy to fall into the trap of information overload in a flipped classroom environment (Benitez, 2014).

The above are relatively straightforward challenges that can be addressed in relatively straightforward ways. For example, instructors can reconcile themselves to the extra preparation time to develop and source outside classroom resources through a simple reminder: Once in place, these resources can be reused for multiple sections or for future flipped classes, with modifications to suit particular classes. As for the increased amount of student work to be graded, Gilboy et al. (2015) point out that sometimes this work can be informally graded, and sometimes multiple assignments can be part of one summative assessment.

However, other challenges presented by the flipped classroom are not so straightforward insofar as they involve the more delicate, complex task of reframing our perception of ourselves and our relationship with our students. This reflective paper identifies three of those challenges, which we have personally encountered; provides practical teaching strategies to address them; and, most importantly of all, considers the lessons they have taught us—lessons that we hope will make us better teachers.

## Context

The reflections presented here are drawn from our experience teaching business undergraduates at two mid-sized postsecondary institutions, one university and one college. Both institutions are in or near a large urban centre in South Western Ontario and both target a highly diverse student population in terms of age, ethnicity, and socioeconomic background. English is an acquired language for a significant portion of our students, many of whom are first-generation postsecondary learners. Both institutions are highly supportive of innovative teaching methods, including the flipped learning approach—support reflected in the fact that our class sizes are relatively small, averaging 30–40 students. We have fifteen years of collective experience using the flipped classroom approach.

## Discussion

### *Three Challenges*

*The flipped classroom requires that the instructor give up complete control.*

This is the hardest challenge. All three of us view ourselves as dedicated instructors who readily embrace the role of “guide on the side” over “sage on the stage.” All three of us have long committed to a learner-centred teaching ethos. And yet all three of us are challenged by this demand of the flipped classroom: The student becomes the centre of the classroom.

In a traditional classroom learning environment, the instructor typically explains the topic, providing background, conceptual or theoretical information and examples, and then guides the students as they address a problem or an application related to that topic. The students may be actively involved, but that involvement is regulated by the instructor, who has pre-determined the nature and extent of the student engagement. For example, we might ask the students to engage in a peer review, exchanging rough drafts of an assignment to read and critique. In a non-flipped classroom, the first half of the class might be spent with the instructor explaining how to critique a rough draft: a mini lecture detailing the type of content that should be included, the expected

depth, the organization, the tone, and the writing style, followed by a large group “practice run” of an example rough draft, chosen because it illustrates certain characteristics we want to highlight. The objective of all this in class prep work is to ensure that everyone is “on the same page”—referring to the expectation (or hope) that every student starts at the same place, understands the material in the same way, and is therefore equipped to apply the material at the same pace (i.e., within the remaining time allotted for the actual peer review). The whole process is meant to involve the students in their own learning. At the same time, the whole process places the instructor front and centre in the classroom.

Contrast the above scenario with the flipped classroom. Here, each student has presumably already reviewed the preparatory material for the rough draft critique. Therefore, he or she is ready to be immersed straightaway into the action—given the draft and set to work. The instructor’s role is to address what the student needs. Rather than shaping the action, we respond to it, through consulting with individual students or with small groups of students. We answer their individual questions about the specific critique they are working on. We consider their approach to the assignment—one which we might not have anticipated—and we provide our assessment of it. We listen. And, if there are no immediate questions to be answered or input to be provided, we simply wait, making ourselves available. On the sidelines.

We are somewhat embarrassed to admit that we find this “sideline” role challenging. At times, we have felt anxious, awkward and even irrelevant—as if we weren’t doing our job. Moving from student to student or group to group, we offer our help and check on our students’ progress, but we still wonder at times if the students understand the material at hand and if they’re formulating the “right” response to the assigned task. It also sometimes seems as if the students are doing all the work. What, then, is our job?

*The flipped classroom requires the instructor to “be on” at all times.*

All three of us agree: Lecturing is easy compared to listening. With lecturing, most of the work has already been done: the central ideas identified, the supporting facts assembled, the organization decided, and the clarity of expression refined. All that is required is the delivery, and even that, notwithstanding student questions and the occasional digression, is helped along by notes and PowerPoint slides. That’s why perfectly fine, perhaps even wonderful, lectures can still be delivered when we’re feeling tired or worried or on the brink of a bad cold. With listening, however, the work is ongoing. Listening to what our students have to say, figuring out what’s being left unsaid, and then providing an on-the-spot, thoughtful response require our full intellectual—and often emotional—commitment. This commitment is magnified when the process needs to be repeated for each student or for multiple small groups of students within the class. That’s what the flipped classroom requires us to do—and it can be exhausting.

An important element of the flipped classroom is that it gives students an opportunity to receive instant feedback and guidance from their instructor. For example, in a class that focused on resume-writing, students were asked to consider the possibilities offered in two types of resumes, traditional vs creative, by brainstorming content that they might incorporate in their own versions of each resume. The class was small enough that each student’s work could be critiqued. We provided feedback on their ideas before they developed their actual resumes outside of class time. This one-on-one discussion with students on their assignments meant that we needed to tailor our guidance to suit individual student needs: Those who needed extra help to master the course

materials received it, just as those who were moving at a faster pace received guidance appropriate to their level.

Thus, the flipped classroom can make learning more meaningful for each student. However, that individualized learning also means that the instructor needs to be constantly aware, constantly assessing, and constantly figuring out what constitutes “meaningful” learning for each student. This can be draining—and it leads to another uncomfortable admission: There have been times when each of us has been relieved to see some absences because fewer students mean fewer individual consults—and therefore a less taxing class for us.

*The flipped classroom requires that the instructor learn not to listen to the demands of an ego that says, “I am the smartest person in the room.”*

As students, we were rewarded with high grades for all the reading, studying, and effort that we put into our courses. Now, as faculty we are rewarded with favourable tenure and promotion ratings for all the reading, studying, and effort that we put into our work. Collectively, all three of us have spent decades immersed in a postsecondary culture that highly values intellectual achievement—and that constantly prompts us to expand that achievement through ever more articles published, citations received, and research funds granted. Is it any wonder, then, that our workplace identity tends to revolve around “being smart”—and on proving that we’re smart?

The traditional classroom model tends to reinforce that identity. It placed us, sometimes literally, on a pedestal. Whether we spent our time on a raised podium lecturing or moving around the classroom facilitating, the implicit message sent to our students was as follows: We were the experts, and our classroom role was to transfer our expertise, or at least some of it, to the students.

The flipped classroom changes this message. It requires that the instructor craft a new relationship with the students, one that’s akin to a partnership based on co-creating knowledge and understanding. The resume writing class discussed earlier provides a good example of this new relationship. Here, the instructor does not tell the student how to develop their resume. Instead, he or she responds to the student’s views on how to create an effective resume. Armed with the out-of-class readings and prep work, the student can offer educated, thoughtful views to initiate and sustain a meaningful dialogue with the instructor.

In our experience, this dialogue sometimes took a completely unexpected (and, not infrequently, circuitous) path. Accepting that path was challenging for us because it led us into unfamiliar territory, not just in terms of content but also in terms of roles. No longer the leader who held all the answers, we became more like partners with our students, engaging in dialogue that sometimes led to completely new, unanticipated answers. Sometimes, too, the discussion would seem to veer off track, moving away from the intended topic, and making us anxious about “wasting time” and getting “back on track.” Relinquishing the role of a leader who holds all the answers—and who takes the most efficient, straightforward path to arrive at those answers—remains a challenge for us. Wanting to be (and to be perceived as) the smartest person in the room has been a long-ingrained part of our postsecondary culture. Leaving it behind is not always easy, but leaving it behind is what the flipped classroom requires.

### ***Addressing the Challenges: Teaching Strategies in the Flipped Classroom***

Our solution to the above challenges rests on one word: confidence. As we reflect on the three challenges facing us in the flipped classroom, we keep coming back to one theme: lack of

confidence, not just in ourselves but also in our students. And lack of confidence leads to fear. For example, we fear that our students' learning will be compromised if we, as instructors, do not exert complete control over the classroom. We fear that giving up complete control will also render us irrelevant. We fear that we cannot sustain the energy and enthusiasm that students within the flipped classroom deserve. We fear facing the classroom without the protective armour of our egos. And, finally, we fear that our students are not up to the task of proving us wrong on any of these counts.

The only way to address all these fears is through cultivating confidence in ourselves and in our students, so that we all more easily embrace the learning potential of the flipped classroom. What follows are some practical suggestions with that aim in mind.

*A pre-class worksheet to help ensure students are prepared for their in-class work.*

A pre-class worksheet contains a number of questions about the homework material. It acts as a guide for the students, directing them to the most significant aspects of the homework and focusing their preparation for the in-class activities to come. The questions we use are not merely "yes" or "no" answers. Instead each question requires a detailed written response, intended to draw out the students' understanding of the content, so that they are adequately prepared for the classroom activities. Therefore, when students come to class with their completed worksheet, they are more confident about their understanding of the course material—and we are, too.

*In-class homework review to assess the students' understanding.*

Did the students understand the homework (including the pre-class worksheet) they were asked to complete as preparation for the day's class? Did they actually do this homework? We address those two questions at the start of each class. For example, we might begin the class with a two-minute, "low stakes" quiz of the homework material, followed by a large or small group discussion of answers. We might distribute post-it notes to the class, asking each student to record one key "lesson" they learned from a homework reading or one point which they found confusing. A quick review of those post-it notes then allows us to assess our students' preparation or level of understanding of that day's material. (And assigning a grade to these sorts of exercises also prompts our students to come to class prepared.)

A little bit of this kind of teaching at the beginning of each class helps us avoid the anxiety of wondering whether our students are ready to embark on the in-class work. It also helps us affirm our own role in the flipped classroom. Both outcomes increase our self-confidence and our confidence in our students' capabilities.

*Small group work to foster full student engagement.*

We ask students to work in small groups in the class, so they can draw on each other's knowledge and, ideally, develop a fuller understanding of the material. This approach also allows them to explain the material in their own way, presumably increasing its meaning and relevance to their own lives.

When necessary, we step in to address knowledge gaps and misconceptions regarding a particular concept or content by asking questions. For example, our marketing students were working on an in-class assignment that required them to craft ideas for a new product. The

instructor's role was to circulate from small group to small group, asking questions to help each group refine its thinking and its product: "Does this product involve a retail, service, or manufacture business?"; "Who exactly is the product's target market?"; "How did you decide on that market?"; etc. By asking questions, rather than providing answers, we aim to encourage debate and creativity, and to send an important message to the students, one that reflects our confidence in them: "You are capable of developing your own ideas and solutions."

An additional benefit of this approach is that it gives us more opportunities to hear what the students have to say, reinforcing our confidence in their abilities—and relieving us of a tiresome task: providing on-the-spot definitive answers that prove we are the smartest people in the room. That task, we have come to realize, was the reason we often felt drained after our flipped classroom sessions. Fewer answers and more thoughtful questions engages our students and lightens our load.

### ***The Lessons Learned ... For Us, the Instructors***

Our first lesson can be summed up in three words: We are learners. Years of strong student evaluations and half a dozen teaching awards among us do not absolve us of the responsibility to learn new teaching approaches. Exploring one of these approaches, the flipped classroom, led us to our second lesson: The more we embrace the role of learner, the more confident we become in ourselves—and in our students.

## References

- Abeysekera, L., & Dawson, P. (2015). Motivation and cognitive load in the flipped classroom: Definition, rationale and a call for research. *Higher Education Research and Development*, 34(1), 1–14.
- Baker, J. (2000, June). The ‘Classroom Flip’: Using Web course management tools to become the guide by the side. In Chambers, J. A. (ed.), *Selected Papers from the 11th International Conference on College Teaching and Learning*. Center for the Advancement of Teaching and Learning, Florida Community College at Jacksonville.
- Benitez, J. (2014, February 7). *Where is the pedagogy in flipped classrooms?* ALiEM: Academic Life in Emergency Medicine. <https://www.aliem.com/2014/where-pedagogy-in-flipped-classrooms/>
- Ferreri, S. P., & O’Connor, S. K. (2013). Redesign of a large lecture course into a small-group learning course. *American Journal of Pharmaceutical Education*, 77(1), 13.
- Findlay-Thompson, S., & Mombourquette, P. (2014). Evaluation of a flipped classroom in an undergraduate business course, *Business Education & Accreditation*, 6(1), 63–71.
- Gilboy, M.B., Heinerichs, S., & Pazzaglia, G. (2015). Enhancing student engagement using the flipped classroom. *Journal of Nutrition Education and Behavior*, 47(1), 109–114
- Hung, H. T. (2014). Flipping the classroom for English language learners to foster active learning. *Computer Assisted Language Learning*, 28(1), 81–96.
- Lage, M. J., Platt, G. J., & Treglia, M. (2000). Inverting the classroom: A gateway to creating an inclusive learning environment. *The Journal of Economic Education*, 31(1), 30–43.
- Mok, H. N. (2014). Teaching tip: The flipped classroom. *Journal of Information Systems Education*, 25(1), 7–11.
- O’Flaherty, J., & Phillips, C. (2015). The use of flipped classrooms in higher education: A scoping review. *The Internet and Higher Education*, 25, 85–95.
- Telford, M., & Senior, E. (2017). Healthcare students’ experiences when integrating e-learning and flipped classroom instructional approaches. *British Journal of Nursing*, 26(11), 617–622.
- Tune, J. D., Sturek, M., & Basile, D. P. (2013). Flipped classroom model improves graduate student performance in cardiovascular, respiratory, and renal physiology. *Advances in Physiology Education*, 37(4), 316–320.

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