

QUESTIONING THE FLIP: THE HIDDEN DILEMMAS OF THE GREATEST THING SINCE SLICED BREAD

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ABSTRACT

The idea of flipping the class is a recent practice in accounting education. Not only is it a new idea for the delivery of accounting education, but possibly becoming a benchmark of good practice. This paper reviews the literature and surveys related to the flipped classroom. Subjected to critical scrutiny, the innovation has several shortcomings and is a product of highly limiting assumptions. However, despite the probability that flipping the classroom is not a panacea, it exposes the shortcomings of the non-flipped classroom in a way that is both discomfoting and enlightening.

Introduction

These curious times for accounting education involve many sources that press for change. For many years, the gap between what we should be doing, as illustrated by several pedagogical doctrines, and what we continue to do, remains wide. Higher education in general and accounting education in particular have come under extraordinary pressure to demonstrate improved results. At the same time, information technology enables improved interfaces with students, many of which remain underutilized.

Into this confluence, an innovation unlike many others arrives. “Flipping the classroom” has gained considerable momentum over the last few years. For many writers, it is a panacea for much which ails higher education. Although flipping the classroom by now may mean different things to different people, its general re-visitation of what constitutes higher education should stimulate debate about several foundational issues.

The purpose of this paper is to examine what flipping the classroom portends for accounting education. This is approached by exploring the contours of this innovation, the range of its appreciation, and evidence of its effectiveness. That work serves as a prelude for examining the questions that flipping the classroom has opened.

Hart (2014) defines the essence of the flip as a digital strategy using 21st century learning techniques. The general idea of the flip is to require students to interact with course material on their own time but prior to class, usually using computer-controlled materials made available to them. This displacement of the information transmission that usually dominates class time frees up the instructor to conduct alternative interaction with students. Here the hope is that the classroom will be more student-centric, more cooperative and more capable of addressing higher order learning needs. Thus, “flipping” might be an only partially correct description of the innovation. The disproportionate value resides in the promise of an enriched education.

The flipped classroom stands as a stern critique of lecture-based accounting classes. Although not examined in depth, the traditional in-class lecture is assumed a poor learning device for several reasons.

Confronting students with unfamiliar concepts via the lecture is problematic (Brame 2013). Several lambaste the lecture for proceeding at one speed that is too fast for some and too slow for others. Transferred to video, this pacing problem is solved (Siegle 2013). Rather than being comprehensive in ambition, lectures need to be laser-like in their focus on key concepts. Thus, flipping does not advocate the end of lectures, but only strives to make their use more productive (Berrett 2012), perhaps taking less time and less centrality.

Consistent with the dethroning of the lecture, the flip re-imagines the instructor's role. Much truth exists in the trope that the "sage on the stage" needs to be replaced by the "guide on the side." In the flipped classroom, faculty are expected to be facilitators that guide the application of the knowledge that students have learned outside the classroom (Jeffries and Huggett 2014). This effort incorporates much planning for classroom activities that will accomplish learning objectives and orchestrate student interaction. Here, most writers explicitly or implicitly suggest pursuing Bloom's higher order ambitions (e.g. Brame 2013).

The exact nature of classroom activities in the flip have not been clearly specified, leaving much to be designed by the instructor. Most agree that the active engagement of students is a non-negotiable parameter (Bonwell and Eison 1991). This feature allows others to place peer-to-peer mentoring at the center (Bishop and Verleger 2013). Activities should be practical and applied. Others however suggest disproportionate attention for the exceptional "non-template" manifestations of a course's domain (Berrett 2012).

Less attention has been paid in the literature to the problem of assessment. Some suggest that it too needs to be removed from the classroom (Hart 2014). Others note the need to make students accountable for out of classroom mastery, perhaps with in-class quizzes (Jeffries and Huggett 2014). Most writers assume that participation will be much less reluctant in the flipped classroom, and that assessment should also migrate toward these more important activities (Brame 2013). The in-class recapitulation of central points is also stressed as worthwhile, even if the manner of their testing is less clear (see Lage et al. 2000).

The flipped class owes its existence to the technology that is capable of delivering learning materials to students before the class. While students in the developed world have long since had books and library access, they now have an Internet to which students have had many points of contact over their lifetimes. Sending students to the Internet recognizes the vast accumulation of informative material available there. Putting lecture on videotape accedes to the demand of young people for ubiquitous and convenient access. On a symbolic level, migrating the locus of learning to the students' medium of choice communicates a willingness to meet students "where they live" and to engage with the most omnipresent means of delivery. Thus, education becomes more student centric in its core design (Bishop and Verleger 2013). In sum, the flipped classroom possesses great potential.

Where The Flip Will Work Best

For some, the fervor over the flip must seem inexplicable. In some disciplines, a low tech version of this "innovation" has been the normal practices for some time (Willy and Gardner 2013). English literature can be extended as the poster child for such an academic area. There, students apparently carefully read the text and use class time to discuss the embedded themes.

Although the accounting applications do not stretch back many years, they are quite positive about the flipped classroom. Very common is the report that students receive it well (e.g. Lubbe 2016; Phillips and Trainor 2014). Most attributed these reactions to the preference for active engagement, self-management and experiential opportunities. Just about every published paper provides a highly detailed

account of the methods used, often focusing upon one specific material that was deployed (e.g., Brown et al. 2016, Lento 2016). Despite the fact that few actually report superior educational outcomes (c.f., Lento 2016), the accounting applications invariably report support for the flipped experiment (e.g., King 2016). Of all the accounting papers only Du and Taylor 2013 suggest that positive results were less than uniform.

Absent such traditions, disciplines could be expected to vary in their suitability for a flip. The literature only offers hints at disciplinary contingency. Berrett (2012) suggests that the flipped class is more productive for fields noted for rich intertwined ideas, putting the physical sciences at a disadvantage. However, Roehl et al. (2013) expect that the flipped classroom would work better for those subjects that students find “intense,” a category that would not exclude many areas. The availability of time in class would favor disciplines that have readily available physical demonstrations. Turning dry data into lab type illustrations is easily done in some areas (Jeffries and Huggett 2014). Illustrations of such efforts are available for fields as diverse as electrical engineering and economics (Lage et al. 2000). The flip teaches that context and application are primary, and therefore its adoption is likely to be disciplinarily uneven.

Why People Think The Flip Will Work

If there is a philosophic turn within the flipped classroom, it is a commitment to a deeper level of learning. The belief that traditional lecture-homework-testing motifs constitute only a surface learning often lies unstated in the literature. Marked by passivity and by reluctant interaction, the traditional model is believed easy to improve upon (Hart 2014). Achieving depth of learning is necessarily dependent upon making students active participants, as opposed to passive vessels for knowledge (Ritchhart et al. 2011). Depth also involves the purposeful sacrifice of breadth as specific sub-areas likely to be problematic for novices are chosen for intensive work (Brame 2013). To ensure activity, work is accompanied with a peer facilitated emphasis, even if such means leveraging less that the instructor only knows.

Although not stressed in its literature, the advantage of the flipped classroom heavily depends upon its ability to provide high-quality feedback to students. Feedback to students is the essential substance of what it would mean to restore the intimacy of teaching (Berrett 2012) and to personalize the learning that occurs (Davies et al. 2013). The advantage of non-traditional interaction is the ability to correct idiosyncratic mistakes shortly after they are made, and to disassociate that learning process from grade consequences. In the flipped environment, feedback is two-way with the instructor necessarily attentive to small units of misunderstanding and able to redirect outcomes on the fly (Hart 2014).

The advent of the flipped class occurs against the background of growing recognition of divergent student learning styles. If one accepts the premise that such differences make the traditional lecture a better learning system for some than for others, one would be moved to advocate a more mixed strategy. Lage et al. (2000) specify some learning style possibilities along the lines of preference for independence in learning. The flipped classroom, while not precisely calibrated to learning style, introduces a counterpoint to dyadic methods such as lectures. Furthermore, to the extent the flip allows peer interaction, collaborative learning styles are facilitated (Bishop and Verleger 2013). Needless to say, students that need to see the theoretical in a more practical posture also benefit. Thus, flipping the classroom provides a more democratic learning environment.

A strong consensus exists for the proposition that higher student motivation is a result of flipping the classroom. Generally, the conclusion is based on anecdotal instructor observation (e.g., Brame 2013). Several plausible reasons have been offered for this connection. The flipped classroom promotes a variety of engagements for the students (Reeves and Reeves 2012), many of which are neglected by conventional college learning. Along similar lines, elements of the flip exhibit concern over student states that nobody

had even inquired about before (Hart 2014). All of this may make the student more conscious of his/her learning (Fallatah et al. 2013). This may be important in its competitive sense, since students do not like to think of themselves as falling behind the class (Siegle 2013). However, when grade weight is attached to flipped class work, one cannot conclude that heightened motivation is intrinsic in nature (Lage et al. 2000). If a motivated student is a better student, the flipped classroom appears to deliver.

Satisfaction exists within the same nomological network as motivation. If satisfied students are better primed to learn, this outcome has importance to educators. Anecdotal reports of high satisfaction with the flipped classroom abound, even if some empirical results to the contrary have also been reported (Jensen et al. 2015). Along with this consensus observation comes a spate of rationales. Bishop and Verleger (2013) suggest satisfaction comes from a pent-up desire by students to be active in the classroom. The flipped classroom's success in selecting and reinforcing key concepts may reduce student learning anxiety (Fallatah et al. 2013). Students may also be positively reacting to less hierarchical control by the teacher, in that some flipped classrooms allow students to cooperatively perform some tasks (Jeffries and Huggett 2014). The flipped classroom's learning style indulges the Millennial generation's preferences for connectedness, internal variation and multi-tasking (Prensky 2001; 2010).

Although most of our attention properly pinpoints students, any educational innovations also require well-motivated instructors. Only with such in place can a new practice be considered sustainable. Early adopters of the flipped classroom enjoyed the experience (Lage et al. 2000). A wider survey reported that almost all those who tried this approach would repeat (Morgan 2013).

But for modern technology, no talk of flipping the classroom would exist. Whereas modern computer accessed technology has not dominated the core of the flip (Bergmann et al. 2011), most would agree that it is essential to most flip conceptions and executions (Bliuc et al. 2007). For the large part, technology enables the delivery of knowledge- intensive content on the front end of a course unit. This could be a self-produced video perhaps combined with PowerPoints. It also could be material produced by others that has been uploaded to a distribution point like You Tube or the Khan Academy. Students report that their experience with this part of the flipped classroom was positive (Fallatah et al. 2013), perhaps due to their ability to control it. However, mixed results exist on whether the video is as good as a live lecture/performance (Bishop and Verleger 2013). Instructors appreciate their flexibility as they can be re-edited and re-purposed during the semester (Missildine et al. 2003). But students are put off by low-quality materials, even if they possess good substance (Willy and Gardner 2013). Technology is only as good as how well it has been integrated with human course elements (Davies et al. 2013). The former should never replace, only supplement, the latter.

In sum, substantial merit seems to have accumulated around the idea of the flipped classroom. Participants are generally enthused about it. Even if considerable variation in practice exists to render the flipped classroom more of a template than a specific practice, it's conceivable potential is difficult to gainsay. The flipped classroom also continues to evolve with its use also associated with a higher level of subsequent pedagogical innovation (Strayer 2012).

A Hard Look At The Evidence

Since most of the literature on the flipped classroom remains anecdotal, it should not be overestimated or accepted on the basis of faith. The extraordinary degree of cheerleading that has accompanied this innovation also calls for diligent scrutiny. Adoptions tend to be noisy and somewhat non-representative, but not short in advocacy.

Whether students in a flipped classroom learn more is a very open question. Authors that allege the existence of higher performance in such classes are fairly vague about its nature (e.g. Brame 2013).

Ironically, those with higher levels of specificity about incremental learning offer studies located in the K-12 level or in the medical arts. Little evidence on performance seems generalizable (Bishop and Verleger 2013). Here, a severe discounting of subjective student belief that they are learning more in flipped environment (e.g., Stone 2012) must be done.

That which is known about performance in flipped classes would seem quite confounded by mostly unacknowledged instructor effects. For the most part, the literature is the assemblage of single instructor works (e.g. Lage et al. 2000). One has to believe that those instructors brave enough to depart radically from traditional methods are themselves exceptional representatives of the academy. These people are likely to be high skilled interactionists who are not exceptionally driven by teaching evaluation outcomes (Berrett 2012), nor fearful of the extra time needed to plan and deliver the course.

The early evidence does suggest that student grades tend to be higher in flipped classes (Missildine et al. 2013). In the absence of reported weights allocated to various graded elements, precise interpretations are speculative. However, insofar as incentives for desired action are needed, the flipped class should associate higher grade weights to classroom participation than does the traditional class. If these points are easy to earn, higher grades will result. Rewarding learning processes might have to be done at the expense of “hard” learning outcomes.

Performance difference measurement is also hampered by the absence of appropriate benchmarks. The absence of what standard of student achievement to expect in a traditional environment seriously limits the validity and reliability of comparisons. The flipped classroom is a rather comprehensive change presenting challenges to any attempt at causal logic. The most typical contrast is across semesters, using flipped class results of a current term and the un-flipped class of a previous term (e.g., Stone 2012).

Nobody doubts that the flipped classroom results in a higher level of student-faculty interaction. If all learning is essentially a conversation, such an environment creates a higher quality one. Without question, the flipped environment mitigates the perhaps excessively impersonal nature of higher education today. The development of more personalized learning guidance could be considered a distinctly positive outcome.

In sum, the evidence is mixed. However, a part of the problem is the difficulty of producing scientific evidence in the academic field where very little can be experimentally controlled. What we know now is that the flipped classroom continues to have large promise but has not demonstrated convincing superiority.

Persisting Problems With The Flip

The value of any innovation resides in its scalability. The fact that a few faculty members are doing innovative things with their students might be interesting, but it is only important if one can imagine many faculty doing the same thing with many more students. The flip would seem to be quite demanding on faculty time and on faculty teaching talent. Berrett (2012) for example wonders whether faculty as a whole are proficient at answering the open-ended questions that the flip is likely to inspire. Properly, much of the concern might be with startup costs. As Missildine et al. (2013) assert, produced material could be permanently archived for repeated use.

Assessment has been awarded short shrift in the relevant literature. Most would agree that the flipped classroom further de-centers the mastery of technical content as the focus of testing and grading. How one best evaluates the emergence of a personalized learning process has not been discussed. That grades work as strong incentives for what students will do has now attained much recognition. One line of

thought would push for self-grading (Willy and Gardner 2013), an idea that is the logical endpoint of that which the flipped classroom supports. Less extreme is the notion that more grade weight would attach to group projects. No new answers have been offered for the “free rider” problem endemic to non-individualized assessment.

The promise of an active, problem-based, peer intensive class format is to enable students to focus on their personal learning needs. This represented progress over the teacher-centric designation of standard learning objectives. The flipped classroom is all about the encouragement of learning meta-cognition (Brame 2013). Along these lines, students in these classes report heightened learning, focus and application abilities (Stone 2012). However, self-reports of this sort by students tend to overestimate success (Berrett 2012), and may be no better than students in traditional classes (Christensen et al. 2001; Fogarty and Goldwater 2012).

That the idea of flipping the classroom is contemporaneous with the emergence of video formatted educational materials has to be understood as an implicit critique of the printed word. Higher education has been fixed upon book-based materials for some time. In fact, the lecture could be interpreted as an extension or a mark-up of the textbook itself. Although some high-quality non-texts exist in every field, the adequacy of such is problematic. Many more will have to be produced (Lage et al. 2000), and access will have to be arranged. This requisite will be more demanding if these materials are to be focused at the higher end of Bloom’s typology (Jeffries and Huggett 2014). Instructors might be somewhat reluctant to facilitate without an ample package of support materials.

The flipped environment is a necessarily costlier one, even if one were to assume the existence of adequate materials to support learning within it. Lage et al. (2000) reason that at many schools, class sizes will have to be reduced. Once development time is better appreciated, faculty will demand release time or other compensation to justify the conversion. The flipped classroom, not easily accomplished in the large auditorium-style rooms designed for lectures, might also impose long-run facilities costs (Hart 2014). Although, not a financial cost, teachers might also see the reductions in course content coverage to be an implicit cost. Willy and Gardner’s (2013) advice to start slow in movement toward the flipped classroom might also be means of accommodating the various incremental expenses encountered.

What The Very Existence Of Flipping The Classroom Teaches Us

The above analysis of the flipped classroom might lead one to believe that it is a splendid innovation whose time will never come. One might reasonably conclude that it is a great idea that is insufficiently practical to bring into existence on any basis except as a novelty. Nonetheless, the flipped class and the momentum that it has created, should teach some valuable lessons about the state of accounting education. This may be time even if the innovation is less appropriate in the accounting discipline. Here are the most apparent lessons.

Our Lectures Are Not as Good as We Thought

If nothing else, the flipped classroom is a rebuke of the classic lecture as the primary method of instructional delivery. The lecture induces the passivity strongly critiqued as a poor outcome for valuable class time. To the extent that information has to be transmitted in this format, it should be done off-site and a prelude, according to the rules of the flipped classroom.

Whether academics in accounting believe that they are the exception to the rule that has relegated the lecture to a marginal status is unclear. Whereas the ability to say that accounting, as a profession and as the only separately accredited business school discipline, is special is relatively easy, the use of live lecture as the primary means of information transmission and learning is a different matter. Reliance on

lectures tempts staleness and insufficient focus (Jeffries and Huggett 2014), and accounting would not seem to have immunity. If anything, accounting is marked by its abundance of technical information and by its incorporation of mathematical expression. Both of these dimensions could be the beginning of a case to retain the lecture format with a little more vigor than other disciplines could muster. At least at introductory levels, accounting at most schools will still be dependent on larger section delivery formats. This also makes lecture format more efficient for a cash-strapped business school.

Even with the acceptance of these special pleadings, accounting lectures must be made better. The use of the video format will allow some time displacement as repetitive lecture planning and delivery can be avoided. This relocation seems to be particularly apropos for stand-alone problems that demonstrate points. Shorter and more singularly purposed lectures could be a useful compromise that could free time for the advanced topics, cooperative learning exercises and personalized feedback that lie at the heart of the flipped classroom (Siegle 2013). Movement in this direction also harmonizes with the preferences of the Millennial generation, a group that the accounting profession struggles to permanently attract (Prensky 2001).

Educational Technology Creates An Imperative

The digital revolution has reshaped the businesses that employ our students and the disciplines that we share. The case that education should or could stand apart from such a mega-trend grows increasingly difficult to make. The point at which accounting education could elect to retain old ways has probably passed. Technology creates a use imperative.

Rather than recount the efficiency and effectiveness advantages of an intense use of modern technology in education, suffice it to say that the gap grows larger over time as what can be done with modern technology becomes both more and better. Whereas a modest improvement could be offset by the costs of implementing change, large improvements grow difficult to ignore. Here, the opportunity cost of not flipping the class looms larger as time passes.

Technology's use also has a powerful symbolic component. Using the modern tools communicates that one is in synchronicity with the march of the business world. It also suggests an alignment with the world of students that praises early adaptors and is heavily addicted to "the next great thing." To eschew modern technology suggests membership in some ancient cult or priesthood. Although this positioning can have its own charm, it stresses distancing and isolation.

The technology embedded in flipping the classroom is not the only way that modern methods can be used. The existence of these tools does not create the imperative to flip the classroom. However, increasingly what technology makes possible cannot be completely ignored.

We May Not Have Sufficient Consensus About What Is Important

Flipping the classroom is valued because it frees up time for what is important. This statement implicitly suggests that mastery of the technical content, prioritized in the traditional format, may have been overestimated in value. Or at least, that is what some people may believe.

Accounting may be less willing to deemphasize content mastery in the name of other learning objectives. Content is very important to the ideology of these professional services which draws hard lines between correct and incorrect. With professional certification following graduation, students cannot afford to stray very far from a large body of factual information.

Accounting instructors seem committed to teaching methods that reinforce content mastery. Although the flipped class adherents suggest that content coverage is not sacrificed (Lage et al. 2000), considerable skepticism will exist among those that believe that constant reinforcement through repetition and progressive clarification is necessary.

The domination of content may not be perceived as such by accounting instructors. The assertion that accountants have a unique skill in the systematic manipulation of data could be made. This skill requires development and constant refinement, but remains closely intertwined with content. If this remains the core of accounting education, the activities of a flipped classroom are difficult to imagine. Insufficient consensus exists as to its logical displacement strategy.

Thus, accounting might be a poor choice for the flipped classroom *per se*. For those first learning it, accounting appears science-like and therefore less amenable to the playfulness and the discretionary participation of the flip (see Berrett 2012). For most instructors, this discipline comprises the exacting scaffolding of structured inquiry that all must witness, rather than a set of smaller enquiries that can be assigned to some, but skipped by others. Nonetheless, more thinking about alternatives to the one-size-fits-all approach of the standard lecture and assigned homework model could be in order.

We Might Not Be Using The Right Materials

If nothing else, the flipped classroom invites the use of a broader panoply of educational materials. In-class time would not be so dependent upon textbooks and therefore would be freed from the vision of the text's author, as highlighted and punctuated by a corresponding lecture. The flipped class could incorporate material that is more current and more applied than the text can be. The world is saturated with relevant information on just about every subject, most of which would not pass the filter used for text-book production.

The nature of textbooks is to explain phenomenon from the ground up. In other words, the usual working assumption is that the reader knows little and has to be told much. In this vein, the material necessarily gravitates toward the lower levels of Bloom's taxonomy. Since there will always be students that struggle to memorize and to understand, this lower level serves as a tempting basis of differentiation for instructors. The more a person teaching a class defines that which students need to know as what is "in the book," the less likely it is that higher levels of learning will be approached.

The point made by the flipped class movement that we must do better should find resonance in accounting. What the profession is and does is poorly captured by most textbooks. However, the discipline's heavy reliance on these materials, perhaps partially justified by the steepness of the learning curve necessitated, illustrates the challenges posed by the notion of the flipped classroom. Instructors, perhaps unsure of their personal expertise vis-à-vis the textbook, are reluctant to accept the additional burden of finding quality supplements to it, when such would be required on a regular basis. Such resources not only should be pedagogically precise and well-aimed, but also need to be realistic (Davies et al. 2013). Thus the discipline faces a serious educational materials challenge in its orientation toward the flipped classroom or any similar revolution.

Could Accounting Be Too Theoretical?

Every discipline struggles along a theoretical-practical axis. In a perfect world, a discipline could be both at once, having both purely academic and purely practical orientations. This would satisfy both its professoriate, assumed to be mostly interested in advancing its abstract development, and its working professional, mainly interested in its ability to provide organizational and financial benefits. In the real

world, tension exists in accomplishing both in higher education. As a result, disciplines often verge toward one extreme or the other.

The flipped classroom idea forces a more explicit commitment to theory or practice, but it is hardly a neutral force. *Ceteris paribus*, the flipped class idea caps the devotion of higher education for theory and allows the practical a stronger foothold. Although the degree of this preferment varies from area to area, ceding the meetings of the class to group work and interaction and a highly focused inquiry tends to prioritize the practical. Theory tends to be global and conceptual and interdisciplinary, and therefore will be consumed outside of class. In the flip, students are supposed to be active participants, a modality that better lends itself to the practical plane.

Although the unwashed outsiders probably see all of accounting as practical, if not vocational, modern academic treatment elevates the work, if not to a theoretical plateau, then at least to that of a esoteric language. Accounting studies at the university level tend to disdain what might be called bookkeeping. We pride ourselves on minimal contact with the tax forms in tax class. Along similar lines, auditing classes contemplate lofty notions such as independence, risk and materiality.

Flipping the accounting classroom would accomplish many things, one of which would be to turn the class work toward the concerns of the working accounting profession. Further inroads into the curriculum and access to students will be available to public accounting in that the classroom goes from a crowded forum to a virtually blank slate. Accounting theory is arguably on the decline elsewhere (Al-Adeem 2010) but this curricular innovation could represent a qualitatively different push. The activities of the flipped classroom suggest that redefinition of useful information might occur. The bulwark that was the content and the textbook no longer provides defense against those that see the purpose of higher education as reducing post-graduation training costs. The case for learning what is in context and concrete and relevant to one's personal life is easy to make when one does not wish to calculate the opportunity costs and to identify the beneficiaries. It may be that revolutionizing the accounting classroom is a slippery slope indeed.

Changing The Basic Bargain With Our Students

Accounting has always been in a pitched battle with other occupational fields for “the best and brightest.” Accordingly, accounting does not have *carte blanche* with regard to unilaterally overhauling its pedagogy. The flip of the classroom ultimately requires appropriate degrees of student support (Missildine et al. 2013), lest enrollment suffers in its wake.

Most versions of the flip result in student feedback that suggests that they had been forced to work harder and more than in a traditional course (e.g., Lage et al. 2000, Missildine et al. 2013). Whereas this does not necessarily have to be true (see Davies et al. 2013), it does appear that the flip will require conscious faculty effort to keep the workload within reasonable bounds. Thus, a reinterpretation of the impetus behind this innovation is that students in traditional courses are not working enough, even if just not able to prepare for class by reading the textbook.

Advocating for innovations as radical as the flip essentially constitutes a push for a renegotiation of the basic bargain with students. Transferring the only systematic opportunity to master the critical content of the course out of the classroom and onto students necessarily demands that students sacrifice more of their “free time” for their education. Therefore, flippers should expect some resistance, perhaps expressed as lower student's satisfaction (Missildine et al. 2013). Expecting each student to take more responsibility for their own learning by practicing more self-discipline and being a forthright team member will not happen overnight. Instructors unwilling to go on the somewhat bumpy ride toward a new collective understanding should stay at home.

Grades Might Not Mean The Same Thing Anymore

The student incentives created by the necessity of grades are several. In accounting, the tendency to reward relative degrees of content appreciation and technique mastery is strong. Perhaps in deference to a large body of definitive material provided by official sources, instructors tend to disproportionately weigh this competency over other outcomes. For the most part, student effort is assumed to be a minor outcome, and mostly subsumed by its contribution to the display of content abilities. Although practice varies from instructor to instructor, on average class participation gravitates toward a minor element of final grades.

A movement toward a flipped classroom would require a recalibration of the grading prospect. In order to incentivize cooperation with the wide variety of classroom activities contemplated by the flip, more grade weight needs to be attached to effort-based parameters. Since most students follow instructions in a cooperative spirit, grades in the flipped environment tend to be higher (Missildine et al. 2013). This finding may also reflect a lighter scrutiny of the details in the content. To believe otherwise would be evidence that the live lecture adds little to student comprehension.

The consideration of radical innovation should force accounting educators to question the meaning of grades. Do we owe potential employers and graduate schools a reliable differentiating signal? If we attach grade consequence to the process of the learning journey taken by the student, would we be happy with evaluative consequences that cannot be as easily understood by external constituents?

Who Wins And Who Loses In This Brave New World?

Every moment from one equilibrium to another possesses distributional consequences. Those that advocate change should be mindful of such, willing to accept these consequences. The flipped classroom is no exception.

Some writers, noting how compatible the day-to-day experience of the flip is to the so-called Millennial generation (e.g., Prensky 2010) posit broad-based winners in an education more steeped in peer-support, variety and performativity. One would guess that only the small slice of students that are older would not share in this gain. Others see smaller groups of those that are disproportionately disadvantaged. These include the gifted (Siegle 2013), the extroverted (Jeffries and Huggett 2014), and those on an accelerated track through their course of studies (Morgan 2013). The downplay of content may also work in favor of non-majors (Berrett 2012). Women, as a group, may also be advantaged in that the flipped classroom contributes to a more practical and personal learning style. Interestingly, resistance to the flip is likely to be stronger among students who have excelled in traditional formats (Bishop and Verleger 2013). We should ask ourselves who we are in the business to serve, when everyone is not a valid answer. Clearly, the flipped classroom does not provide a more equal treatment for all than do other pedagogies.

Accounting education has never really faced its distributional consequences. At its simplest, should we strive to make the best students even better, or should we attempt to pull our weaker students up? We do not have the ability to test the impact of a new pedagogy, in part because we know so little about the status quo. In accounting, the most consequential element of change will be the result of a heightened level of self-study over the technical material. If this results in more stratified outcomes, we will be forced to find comfort with unprecedented inequality.

Do Instructors Have Sufficient Time To Flip?

The three elements of faculty careers are teaching, research, and service. Instructors and their schools have to make peace with the proportion of time given to each. Teaching has many rewards for faculty, including the intangible joys of a meaningful job well done. However, commitments to the other areas are also important and should not be compromised without commensurate rewards.

Flipped class pioneers invariably report that more time needed to be expended than would have been needed for traditional classes (Prensky 2001). Much of the extra time goes to planning (Stone 2012). However, literature has not found an explicit reward for this incremental effort. Teaching/course evaluations for flipped classes are not higher (Berrett 2012).

Intrinsic benefits to the faculty person do accrue. Most faculty want high quality interaction with talented students. Advocates of the flipped classroom often exude excitement over their work with students (Stone 2012). Will this be enough to lose research time? Will institutions revise reward systems to favor innovative teaching in this new flipped era?

Conclusion

The flipped classroom is the most consequential idea for revising the pedagogy of higher education to have appeared in many years. This approach has enormous upside potential and appears well fit to the times. A critical evaluation of the idea, as advanced by its pioneers, revealed no shortage of conceptual and practical issues that need to be further addressed.

This paper has mostly confronted a fully flipped classroom, perhaps because it represents the “ideal type” of the innovation that has been praised by many. As previously acknowledged, many instructors have experimented with partially flipped or sometimes flipped classrooms, sometimes referred to as blended approaches. Whereas such hybrids lack the courage of conviction, they may also reduce the many costs and challenges that this paper has identified. In that some of the difficulty is caused by the radical departure of the flipped classroom from student expectations and faculty time management, hybrids may help reduce the transition contingencies.

There are many questions that could be posed for future research. Had the evidence been stronger that associates the flipped classroom with better learning, we would look harder to overcome its many problems. The pursuit of this evidence must continue. This is complicated by the fact that the flipped classroom necessarily questions what we call learning. If it is enough that we engage students better, even for the short intervals they are in our presence, the flipped classroom is an enlightened revolution of pedagogy. Here we need to study the impact of heightened grade weights in class participants because we all want to bring forth the elusive intrinsic motivation.

The main point is not whether the flipped classroom ought to be adopted. The calculus of pros and cons remains highly context specific. When considering the prospects of flipping the accounting classroom, the idea shines much light on the limitations of current educational practice.

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