Essay

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Transitioning to Team-Based Learning: A Primer for Pioneers

INTRODUCTION

Presentations at the University of Oregon One-Day Workshop explored many innovations in legal research and writing instruction, including flipped-classroom pedagogy. Flipped classroom instruction is a term "generally used for those class structures that use technology to deliver online instructional materials as preclass homework and then repurpose class time for individual or group lab

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work.”¹ Team-based learning (“TBL”) is a form of flipped instruction that has been widely used in other disciplines, but is relatively new in legal education.² TBL differs from general group work in terms of its emphasis on permanent teams that proceed through sequenced phases of instruction. This essay addresses four aspects of TBL pedagogy: (I) strategically formed, permanent teams; (II) the readiness assurance process; (III) application exercises; and (IV) formative assessment.³ Each will be addressed briefly below.

I STRATEGICALLY-FORMED, PERMANENT TEAMS

In a TBL classroom, professors begin by sorting students into groups or teams that are permanent throughout the course. Because the efficacy of a team develops over time, maintaining permanent teams is an important component of TBL. “As groups develop into teams, communication becomes more open and, as long as members have information relevant to the issues at hand, is far more conducive to learning.”⁴ Permanent teams develop trust over time and “in contrast to temporary groups[,] team members are willing to risk challenging each other because they see their own success as being integrally tied to the success of their team.”⁵

¹ Catherine A. Lemmer, A View From the Flip Side: Using the “Inverted Classroom” to Enhance the Legal Information Literacy of the International LL.M Student, 105 LAW LIBR.J. 461, 465 (2013).
² See Sophie M. Sparrow & Margaret Sova McCabe, Team-Based Learning in Law, 18 LEGAL WRITING: J. LEGAL WRITING INST. 153, 154, 156 (2012). Sparrow and McCabe, who successfully used TBL in a doctrinal course in law school, emphasize that increasing numbers of educators have effectively applied the principles of Team-Based Learning. Students are enrolled in Team-Based Learning courses in twenty-three countries. Team-Based Learning is used across a range of disciplines, including medicine, business, sciences, law, and the humanities, and in classes of nine to more than 199.” Id. at 156–57 (citations omitted). However, they posit two main challenges to the use of TBL in law school: “The most significant cultural barrier is students’ expectation that they should focus on their individual performance on a final exam rather than on the pursuit of knowledge. A second, but equally important cultural barrier, is the legal academy’s general aversion to innovative pedagogy.” Id. at 204.
³ For an excellent description of TBL, see Larry K. Michaelsen & Michael Sweet, The Essential Elements of Team-Based Learning, 116 NEW DIRECTIONS FOR TEACHING & LEARNING 7 (2008) [hereinafter Essential Elements].
⁴ LARRY K. MICHAELSEN, Getting Started with Team-Based Learning, in TEAM-BASED LEARNING: A TRANSFORMATIVE USE OF SMALL GROUPS IN COLLEGE TEACHING 27, 30 (Larry K. Michaelsen et al. eds., 2004).
⁵ Id.
In terms of constructing teams, the goal is for student characteristics to be balanced across teams, but diverse within them. Diversity within teams is essential in order to avoid barriers to group cohesiveness, including the formation of coalitions within teams. Coalitions can be based on similar attributes of team members, or prior relationships between team members. To ensure diversity within teams, professors can sort students using questionnaires to ensure ethnic, scholastic, and undergraduate degree diversity within teams, and to balance those attributes across teams.

II
THE READINESS ASSURANCE PROCESS

The readiness assurance process (RAP)\(^6\) is an essential feature of the sequenced instruction model of TBL. The RAP is designed to address student accountability in learning\(^7\) and to prepare students for the application exercises that follow the RAP. The RAP requires the professor to first divide the course into units or modules. For each unit or module, the students complete a RAP that begins with directed, out of class readings.\(^8\) Students then proceed to class where

\(^6\) Larry K. Michaelsen & Michael Sweet, Team-Based Learning, 128 NEW DIRECTIONS FOR TEACHING AND LEARNING 41, 43 (2011) [hereinafter TBL]. The authors describe the readiness assurance process as follows:

1. **Prereading by students outside of class.** This includes podcasts and other forms of media.
2. **Individual readiness assurance test (iRAT).** This is a short, basic, multiple-choice test about the preparation materials.
3. **Team readiness assurance test (tRAT).** Once students turn in their individual tests, they then take the exact same test again, and must come to consensus on their team answers. Importantly, teams must get immediate feedback on their performance, currently best achieved using scratch-off forms in the immediate feedback assessment technique (IF-AT).
4. **Appeals.** When teams feel they can make a case for their answers marked as incorrect, they can use their course materials to generate written appeals, which must consist of (a) a clear argumentative statement and (b) evidence cited from the preparation materials.

\(^7\) Larry K. Michaelsen, L. Dee Fink & Arletta Knight, Designing Effective Group Activities: Lessons for Classroom Teaching and Faculty Development 1 (University of Oklahoma, Instructional Development Program) (copy on file with author) (noting that "the best activity available for building group cohesiveness and minimizing social loafing is the Readiness Assurance Process").

\(^8\) TBL, supra note 6, at 43.
they first take an individual quiz, followed immediately by a group quiz.\(^9\) After the group quiz, the instructor conducts a wrap-up lecture to address confusion regarding concepts addressed in the RAP.\(^10\) Students are also given an opportunity to appeal incorrect responses to questions on the quiz.\(^11\) The feedback provided during the RAP ensures that students are able to proceed to application exercises.

**A. Course Units or Modules**

In terms of identifying course units or modules, TBL is a backward design teaching methodology.\(^12\) “[D]esigning a TBL course requires instructors to ‘think backward’—backward because they are planned around what they want students to be able to do when they have finished the course; only then do instructors think about what students need to know.”\(^13\) TBL is therefore useful in a skills-based course such as legal writing because it requires instructors to identify what students should be able to do, as well as what they must know in order to accomplish that skill. Identifying course objectives through the selection of modules, and preparing the RAP and application exercises to focus on the objectives of each module, are backward design components of TBL.

**B. Out of Class Preparation—Guided Readings**

Once the instructor identifies units of instruction, she prepares guided readings for the students. During the readiness assurance phase, study guides typically accompany the readings. The guides focus student attention on key concepts, which enable them to prepare

\(^9\) Id.  
\(^10\) Id.  
\(^11\) Id.  
\(^12\) Sparrow & McCabe, supra note 2, at 177.  
\(^13\) Essential Elements supra note 3, at 13. The backward design method “enables the instructor to build a course that provides students both declarative and procedural knowledge (in other words, conceptual knowledge and the ability to use that knowledge in decision making).”
for individual and group readiness assurance quizzes that follow the out-of-class preparation. As an example of flipped pedagogy, students complete preparation outside of the class so that class time can be spent to first ensure readiness regarding course concepts, which then transitions to application of those concepts to application exercises.

C. Individual Readiness Assurance Quizzes (iRAQs) and Group Readiness Assurance Quizzes (gRAQs)

The readiness assurance phase also requires students to complete quizzes in class following the out of class instruction. Students first take the quiz individually—the iRAQ. They then immediately proceed to take the identical quiz in teams—the gRAQ. During the gRAQ, they use Immediate Feedback Assessment (IF-AT) sheets, or “scratch-off” sheets, to complete the group quiz.14

IF-AT sheets contains 4-5 possible responses to the multiple choice questions on the gRAQ. Students must scratch off material under each option to reveal the correct response. Teams must continue to scratch off until the correct response is revealed. The teams receive full credit when the correct response is the first one selected. As teams continue to try to locate the correct response, they receive a decreasing number of points on the quiz, e.g., 4 points if the correct answer is selected first, 3 points if the correct answer is selected second, and so on.

There are two primary advantages of using IF-AT sheets for group quizzes.15 The sheets facilitate student understanding because students must continue to scratch off potential answers until the correct response is revealed. Immediate feedback provided by the sheets therefore “enables members to correct their misconceptions of the subject matter. Finding a star immediately after scratching the choice confirms the validity of it, and finding a blank box lets them know they have more work to do.”16 Moreover, group motivation and cohesion are promoted because groups must arrive at a consensus prior to scratching off a potential response. As such, the IF-AT sheet for individual and group readiness assurance quizzes that follow the out-of-class preparation. As an example of flipped pedagogy, students complete preparation outside of the class so that class time can be spent to first ensure readiness regarding course concepts, which then transitions to application of those concepts to application exercises.

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15 See generally Essential Elements, supra note 3.
16 Id. at 18.
“promotes both the ability and the motivation for teams, with no input from the instructor, to learn how to work together effectively.”

D. Wrap-up Lecture

As groups work to complete the quiz, the instructor has the opportunity to identify concepts or questions that are challenging for students. While the students receive some feedback as they complete the quiz, the final portion of a quiz class can be spent with a wrap-up lecture where the instructor clarifies challenging concepts. These lectures are effective because “students have been primed by feedback on the [gRAQ] to listen actively and zero in on exactly the parts of the content they do not understand.”

E. Appeals

Teams are given the opportunity to appeal if they believe that they have an appropriate response that did not correspond to the correct answer on the quiz. All members of the team must contribute to the appeal, which is provided in writing to the course instructor.

Appeals are granted when they demonstrate that the students understood the concept(s) but there was ambiguity in the question or reading material that caused them to select a different response. In order to appeal, students must first identify the ambiguity in either the question or the readings. They then support the appeal by providing an alternative response in the case of an ambiguous question, or refer to the text to describe the disagreement with the correct answer.

17 Id. The authors explain that the use of IF-AT forms facilitate positive group dynamics: “‘Pushy’ members are only one scratch away from embarrassing themselves, and quiet members are one scratch away from being validated as a valuable source of information and two scratches away from being told that they need to speak up.”

18 TBL, supra note 6, at 45 (noting that “[a]fter the RAP, the teacher is prepared to deliver, and students are eager to receive, a highly targeted clarifying lecture”). The format of these lectures can vary. “The ideal strategy is to conduct a class discussion in which teams that correctly answered challenging questions can explain their answers. The other strategy is that, when students’ explanations are inadequate, the teacher can deliver a straight-up corrective and/or explanatory lecture.”
III
APPLICATION EXERCISES

Once the students have completed the RAP, they transition to problems or exercises that apply the course concepts. Application exercises should be designed to follow a “4-S” principle.

First, assignments must be significant in order to encourage student engagement. Second, students must work on the same problem. Because one goal of the application exercises is to promote exchange between groups, students must work on the same assignment so that they have a common frame of reference. Third, students must be required to make a specific choice. This ensures that students engage in higher level thinking. Finally, it is important that students simultaneously report choices so that groups make and defend their decisions and are not influenced by the reports of later groups.

IV
FORMATIVE ASSESSMENT

Another important aspect of TBL is formative assessment. Students receive formative assessment in three primary aspects of TBL: (1) the readiness assurance process, (2) application exercises, and (3) peer assessment.

In the readiness assurance process, students receive formative assessment during the gRAQs. Because the students must arrive at a consensus before they select a response, they must engage in a dialogue with team members to persuade the group as to the accuracy of a response. Further, because the IF-AT sheets require students to

19 Essential Elements, supra note 3, at 20.
20 Id. at 21 (“Unless assignments are built around what they see as a relevant issue, most students will view what they are being asked to do as busywork and will put forth the minimum effort required to get a satisfactory grade”).
21 Id.
22 Id. (“Assigning students to work on different problems practically eliminates meaningful discussions because students have little energy to engage in a comparison of apples and oranges”).
23 Id.
24 Id.
25 Id. at 22 (noting that “[t]he problem with sequential reporting is that the initial response often has a powerful impact on the subsequent discussion because later-reporting teams tend to change their answer in response to what seems to be an emerging majority view—even if that majority is wrong”).
continue to work if their response is not accurate, they receive feedback on their misunderstandings. Feedback is also provided when the appropriate response is revealed, and during the wrap-up lecture that allows the instructor to provide additional instruction regarding concepts that were challenging or difficult.

Students also receive valuable feedback as they complete application exercises. These are collaborative, requiring student groups to work together to solve a problem. Because the groups then present their responses simultaneously, students get immediate feedback on how other groups addressed the problem.

Finally, students receive feedback on their work in connection with a formative peer assessment, which is completed at the midterm of the semester. “Whereas members of a group feel mostly accountable to an outside authority, team members also feel accountable to each other, and peer evaluation is a mechanism by which the teacher can stimulate that experience in one’s students.” 26 The peer assessment form asks each student to evaluate the work of the other students in his/her group. As Michaelsen and Sweet describe, formative feedback instruments should encourage constructive feedback.27 The peer assessment form therefore asks what students “appreciate” about team members as well as what they would like to “request” of team members.28

CONCLUSION

TBL is a transformative pedagogy for law school courses. The RAP ensures student accountability and preparation, largely because of the answerability associated with team quizzes, group application exercises, and peer assessment. As a result, classes are more lively and engaging. Formative assessment is provided in a less labor-intensive format. Law school pedagogy has been criticized for its lack of emphasis on formative assessment, with some courses offering

26 TBL, supra note 6, at 48.
27 Id. (noting “the format of feedback is important so that it is informative and not judgmental. Therefore, many TBL teachers have students fill out peer evaluation forms that ask them to express things they “appreciate” about their teammates and things they ‘request’”).
28 Id. (“This language is carefully chosen so as not to stimulate attacks or judgments but instead promote constructive peer feedback”).
little or no feedback and simply one summative, final exam.\textsuperscript{29} Formative assessment in the form of written feedback on assignments, however, is very labor-intensive. The assessment mechanisms provided by TBL—group quizzes and application exercises—are a relatively labor-free method for promoting student understanding. Moreover, the RAP enables the instructor to clearly identify areas that present the greatest challenges to student understanding. These challenges can therefore be addressed in a focused manner in the wrap-up lecture.

Finally, TBL incorporates the type of collaborative group activity required of lawyers in practice. As I emphasize in class and on course policies, lawyers regularly work collaboratively, so a TBL model mimics the professional environment students will enter upon graduation. Also, the ability to work well with others, and the ability to give and receive constructive criticism, are essential to a success in law practice.\textsuperscript{30} Therefore, to the extent that TBL promotes better learning\textsuperscript{31} and results in a more engaging classroom, it is an excellent pedagogy for the legal writing classroom.

\textsuperscript{29} Carol Springer Sargent & Andrea A. Curcio, \textit{Empirical Evidence that Formative Assessments Improve Final Exams}, 61 J. LEGAL EDUC. 379, 379 (2012) (“Law school may be one of the few spots on campus still using a comprehensive exam for the entire course grade, even though many have called for an end to this single assessment model”).

\textsuperscript{30} Much of the language included in my course policies can be found in materials provided by the Institute for Law Teaching and Learning website, which includes excellent TBL-related resources. Institute for Law Teaching and Learning, \textit{Team-Based Learning in Law}, http://lawteaching.org/teaching/teambasedlearning/index.php (accessed Dec. 27, 2013).

\textsuperscript{31} Sparrow & McCabe, \textit{supra} note 2, at 162. The authors assert that “[t]he most important reason why professors might adopt Team-Based Learning is that it results in better learning.” \textit{Id}.