

COURSE PREPARATION ASSIGNMENTS: A STRATEGY FOR CREATING DISCUSSION-BASED COURSES*

Although many of us would like to get beyond lecturing, we often lack concrete strategies for doing so, particularly in our larger classes. This paper suggests one such strategy for creating a discussion-based course. The success of such a course is predicated on students reading and thinking about the course material (receiving "first exposure") prior to attending class so that class time can be devoted to more substantively engaging activities grounded in guided discussion. The vehicle I propose for achieving this first exposure to the course material is the "Course Preparation Assignment" (CPA). This article explains the rationale for discussion-based courses, describes the development and use of CPAs, and assesses a discussion-based course by comparing it to a traditional lecture course on several outcomes. The assessment reveals that the use of these assignments to create a discussion-based course has been a great success, allowing me to foster student engagement with the course material by spending the majority of class time coordinating, facilitating, and leading discussions, rather than constantly lecturing at the students.

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THE DOMINANT PEDAGOGICAL TREND today emphasizes active over passive learning. Summarizing the research on college student development, Astin (1985) writes: "The theory...*students learn by becoming involved*...seems to explain most of the empirical knowledge gained over the years about environmental influences on student development.... What I mean by involvement is neither mysterious nor esoteric. Quite simply, student involvement refers to

the amount of physical and psychological energy that the student devotes to the academic experience" (pp. 133, 151). Similarly, Pascarella and Terenzini (1991) conclude their review of the literature on student learning by stating plainly: "The body of research on the impacts of the college academic experience is extensive. The strongest general conclusion [is that] the greater the student's involvement or engagement in academic work or in the academic experience of college, the greater his or her level of knowledge acquisition and general cognitive development" (p. 616). This article contributes to the literature on how to structure course work so as to realize these positive results. It proposes a strategy for moving away from lecturing by creating discussion-based courses in which students complete "Course Preparation Assignments" (CPAs) as a prerequisite for in-class work.

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QUESTIONING THE LECTURE COURSE

Although the exclusive use of lecturing is an outmoded pedagogy for most courses, lec-

turing dominates the modern university as it did the medieval university. In its time, this dominance made perfect sense. Before the printing press, students had limited access to books and where they were available they were often too expensive for students to purchase. Consequently faculty had to read books to them as a precondition of analysis. According to Gieysztor (1992), the dictation of texts was more common in central Europe where the *pecia* system for copying texts did not prevail, but “even in Paris, students asked their teachers to dictate the courses, for financial reasons” (p. 129).

Haskins (1923) gives a representative picture of this system, citing the Bolognese jurist Odofredus’s description:

Concerning the method of teaching the following order was kept by ancient and modern doctors and especially by my own master, which method I shall observe: First, I shall give you summaries of each title before I proceed to the text; second, I shall give you as clear and explicit a statement as I can of the purport of each law [included in the title]; third I shall read the text with a view to correcting it; fourth, I shall briefly repeat the contents of the law; fifth, I shall solve apparent contradictions, adding any general principles of law [to be extracted from the passage]...and any distinctions or subtle and useful problems (*quaestiones*) arising out of the law with their solutions, as far as the Divine Providence shall enable me. (P. 58)

Similarly, Rait (1918) summarizes the practice at Vienna: “Ordinary lectures were delivered ‘*solimniter*’ and involved a slow and methodical analysis of the book. The statutes of Vienna prescribe that no master shall read more than one chapter of the text ‘*ante quaestionem vel etiam quaestione expedita*’”¹ (p. 140). So time intensive was it to work through texts in this way that completion of a book in lecture was a cause for celebration. Odofredus closed his course as

follows: “Now gentlemen, we have begun and finished and gone through this book as you know who have been in the class, for which we thank God and His Virgin Mother and all His saints. It is an ancient custom in this city that when a book is finished mass should be sung to the Holy Ghost, and it is a good custom and hence should be observed” (Haskins 1923:60).

Things could not be more different today. Ready access to textual material means students do not need professors to dictate information so they can copy it down (McKeachie 1999)², and yet one estimate suggests some 80 to 90 percent of all instruction in the typical university is by the lecture method (Smith 1990:210). There has been “no general appreciation of the fact that the printing press [has] been invented in the years since the rise of the Medieval university” (Edwin Slosson, quoted in Smith 1990:214). We are mired in the instructional methods of the 12th century. Not only is lecturing inefficient, however; some question its effectiveness as well. For example, research conducted by Walvoord comparing students’ class notes to their professor’s lecture notes finds they bear little resemblance to each other (personal communication; see Walvoord and McCarthy 1991).

The widespread availability of information frees faculty to employ other pedagogies. Unlike students in the medieval uni-

¹The Latin phrase is: “before the investigation or even when the investigation is at hand.” Thanks to Dave Johnson and Boaz Roth for help with the translation.

²Indeed, faculty today could easily distribute their lecture notes to students directly by photocopy, electronic mail, or the web—and some do. But most faculty seem to realize that they would forfeit their *raison d’être* if they “gave away” their lecture notes in this way to students. This was apparently the case already in the medieval university: “Were [Parisian masters] to dictate lectures or to speak so fast that their pupils could not commit their words to writing? From the standpoint of teachers who delivered frequent lectures, all of the same type, and on a few set books, it was probably desirable that there should not be opportunities of possessing such copies of a professor’s lectures” (Rait 1918:142).

versity who, lacking printed materials, were truly like “empty slates,” students today can be expected to play a more active role in the learning process. To foster student involvement we must transform classes from the traditional model based on lectures to an interactive model based on thinking, writing, discussing, and problem-solving.

THE PROBLEM AND SOLUTION: PREPARATION FOR DISCUSSION

According to McKeachie (1999), if we are interested in “retention of information after the end of a course, measures of transfer of knowledge to new situations, or measures of problem solving, thinking, or attitude change, or motivation for further learning” then we should consider research in which “the results show differences favoring discussion methods over lecture” (p. 67). Recognizing the superiority of discussion is one thing; developing a practical strategy for replacing lecturing with a discussion-based pedagogy is quite another. Students and faculty both resist discussion in part because it is often done poorly. When I ask, students report that their negative discussion experiences far outnumber their positive ones. Prior research has found unstructured discussion may be worse than lecturing in terms of substantive engagement and cognitive development (Gamoran and Nystrand 1991). Thus, when I say “discussion” here, I include by ellipses “guided” or “structured.” Indeed, the entire purpose of this strategy is to avoid the pitfalls of unreflective use of discussion in class.

Fortunately, we now have more and better ideas for incorporating discussion into classrooms than ever (e.g., Brookfield and Preskill 1999; McKinney, Beck, and Heyl 2000). As I see it, the key is for students to come to class every day prepared to actively engage the course materials (Walvoord and Pool 1998). This means they must have read and thought about the course material *before* class. To achieve this “first exposure,” I create and post to my course web page various “*Course Preparation Assign-*

ments” (CPAs) to be completed for nearly every class meeting.³ These CPAs ask the students to read and think about a particular chapter or part of the textbook and then to produce a written response to a question or problem the assignment sets up. Each CPA has the same basic structure: (1) an introductory statement, (2) an objective for the assignment, (3) some background information relevant to the topic (if appropriate or necessary), and (4) the writing assignment itself. I have included as an appendix one of the CPAs I have used successfully in the past to discuss racial inequality.⁴

The reading, thinking, and writing the students do to complete the CPA prior to class provide a solid foundation for high-level engagement with the course material. I do not have to spend time lecturing about the topic because they have already had a first exposure to the material. During class, we move straight into discussion of the material, often in groups of three or four students first, then collectively as a class. Discussing the material in small groups first gives students additional resources and confidence for the large group discussion.

In the case of the CPA given in the appendix, I begin class by having the students work for 10 minutes in small groups. The goal is to have them bring their individual answers to the assignment together into a better, more comprehensive whole. To this end, I ask them to create a path diagram, with the dependent variable being the difference in family income between black and white families given in the assignment and the independent variables being their hypothesized explanations for the inequality. In smaller classes, I may give the students a transparency on which to draw their dia-

³Novak et al.’s (1999) “Just-in-Time Teaching” (JiTT) initiative provides a model of active learning that is very similar to the one I propose here, and has been usefully adapted to introductory sociology by Howard (2004).

⁴Supplementary CPAs are available on the *Teaching Sociology* website. Other than the CPA that appears in the appendix, each specific example I give in this article can be found there.

gram to be projected for the class. But I typically just ask one student in each group to take responsibility for drawing the diagram on paper and recording the names of the group members (to create some sense of accountability).

During these small group discussions, I circulate through the class, sometimes just listening to the discussions, sometimes encouraging the students to broaden or deepen their ideas, sometimes answering questions for them. In most cases, knowing they will have to report their findings to the class creates pressure on the students to do the work seriously. Still, as I circulate I keep my eyes and ears open for groups that are not "on-task." This happens most frequently when friends, significant others, and/or roommates constitute groups (which can happen often given student seating patterns). As I note in an earlier article on collaborative learning groups (Yamane 1996), students often have bad experiences in groups they form themselves. One semester when I sensed this was becoming a problem, I randomly assigned students to discussion groups for the balance of the semester. That solved the problem.

When we get back together as a class, I ask each group to report one of their findings; with this information, I begin to create a large path diagram on the chalkboard or a transparency. Inevitably, some of what the students report will be too simplistic, partially correct, or entirely wrong. Rather than just saying so, I ask other students to suggest elaborations or corrections. Or, if I suspect a student is free-riding, I will ask that person to elaborate or correct the finding. Getting the initial path diagram on the board usually takes at least 20 minutes. In my experience, this initial path diagram will have two flaws: (1) it will be too elementary and (2) it will not fully consider the role of *racial* discrimination. Indeed, both of these flaws are reflected in the students' tendency to reduce racial inequality to class inequality. So, I ask the students to get back together in their groups to render their path diagrams more complex by adding a second

layer of explanatory variables (e.g., Why are a smaller percentage of blacks than whites college graduates? Why are black children more likely to live in single-parent, female-headed homes than white children?), and by taking racial discrimination more seriously. After another 10 minutes of small group work, we repeat the initial discussion. By the end of the class, we have worked actively and collectively to create a very comprehensive diagram explaining racial inequality in family income. This diagram, which I reproduce after class and email to the students, creates the basis for the next CPA, which asks the students to come up with public policies that will redress the many causes of racial inequality we have just identified.

I use this particular example in part because it works so well. In a 75-minute class, 20 minutes are spent in small group discussion, 45 minutes in large group discussion, and 10 minutes in transitions. Of course, over an entire semester, we do not spend 100 percent of class time in discussion. As I report below, I still spend about one-quarter of class time lecturing. But I find that my lecturing is qualitatively different. Most importantly, I lecture in shorter segments, typically just setting the stage for or summarizing a discussion. For example, I may need to introduce a discussion by adding some ideas not found in the textbook. As a prelude to our discussion of theoretical perspectives, I lecture for about 10 minutes on what theory is because the textbook does not do as good a job as I would like. I also conclude that class with a 10-minute summary of theories as "ways of seeing" because using sociological theory is so foreign to most students. Despite the clear limitations of lecturing as a general approach to teaching, these are some of the things lectures are "good for" (McKeachie 1999:67).

To keep the class from getting stale, I attempt to vary the format of our discussions from time to time. For example, in the discussion of public policies to redress racial inequality, I ask each small group to

send one person to the front of the class to act as a commissioner of the U.S. Commission on Civil Rights and present their public policy solution to the class. The class then plays the role of a congressional committee interrogating their proposals. In our discussion of theory, I divide the class into thirds and have each group represent one of three theoretical perspectives covered in the text in a debate over which perspective is most useful.

Constructing Course Preparation Assignments

In constructing CPAs, the objective is particularly important. One of the reasons students dislike discussion in class is because they often do not see “the point.” Of course, open-ended discussions can be a good in themselves, even if they lack a clearly defined “point.” But I sympathize with students’ frustrations because I too am wary of spending much of the two to three hours we get to spend together in class each week in non-directed activities. Thus, having a *clearly stated objective* for the CPA is essential, and that objective needs to carry over into the class discussion that follows. Furthermore, the objective needs to go beyond simply requiring the learning of certain content. For example, the objective of an exercise on identity formation might be *to gain a better understanding of socialization by describing and analyzing the process by which religious identity is formed in various institutions, including family, schools, peer groups, and the mass media.* If the objectives go beyond requiring content learning the discussions will be more than simply a recitation to test the students’ knowledge.

Similarly, the assignment itself must be carefully constructed. Typically, the assignment has two components: exposure to and engagement with the material. In this class, the exposure is almost always reading the textbook. It could be reading a newspaper or magazine, or using a source in the library. It could be to do some observation or experimentation—for example, the classic

“folkway violation.” In a textbook instructor’s manual I edited, I suggest a number of exercises wherein students are asked to visit and analyze websites (Yamane 2002). These could be adapted for use in CPAs. Of course, the number and type of questions asked would need to be adjusted to meet the needs of the particular situation.

In terms of the questions I ask students in the assignment section of the CPAs, it is vital that at least some of them are *authentic* questions. According to Nystrand and Gamoran (1991), authentic questions have no pre-specified answer, allowing students to offer opinions, points of view, or information that the teacher did not previously know. An authentic question has an indeterminate number of “right” or acceptable answers. Authentic questions promote substantive engagement in the exercise, and provide a stronger foundation for in-class discussion than a series of inauthentic (“test”) questions, which often end up as dead ends in discussions.

Like any other strategy, developing CPAs involves some trial-and-error. For example, to demonstrate that the “official poverty line” set by the U.S. government underestimates poverty, I asked the students in a CPA to (1) make a list of all the goods and services your family would need to function at a minimum subsistence level, (2) estimate the minimum monthly cost of each of them, and (3) add up your monthly estimates and multiply by 12 to determine the annual total necessary to live at a subsistence level. The in-class discussion of this failed because the 18-20 year-olds in my class had no idea what goods and services are necessary to survive or how much they cost. In retrospect, the underlying problem was that this assignment was not primarily motivated by an authentic question. I had only planned for the students to reach one “right” answer in the discussion: that the official poverty line underestimates poverty.

Because good CPAs are based on authentic questions, instructors who want to use them to develop discussion-based courses need to be able to tolerate some uncertainty.

Each discussion I set up has a specific learning objective and certain ground it seeks to cover, but ultimately a genuine discussion cannot be fully controlled from above. In a discussion-based course I always remain open to the possibility that students will lead me down unexpected paths. That *I* may learn something from *them* in the process is an inherent benefit of this design.

Grading Course Preparation Assignments

I require students to bring printed copies of their assignments with them to class. If they do not attend class, they do not get credit for the assignment. This reinforces the relationship between preparation and discussion, encourages students to attend class, and gives them a tangible point of reference during the class discussions. Some instructors might consider modifying this by adopting the “Just-in-Time-Teaching” (JiTT) approach, which is predicated on students submitting “WarmUps” to the instructor electronically *before* class so that the instructor can tailor the class to what is revealed by the assignments (Novak et al. 1999). Instructors doing so must keep in mind the additional time and resource commitment required by JiTT (see Howard 2004).

I grade the CPAs on a credit/no credit basis. Because closely grading CPAs for every class would be exhausting even in a moderately large class, I simply try to ensure that the students have made some serious effort to complete the assignments. I operationalize “serious effort” as fully answering every question. If they have done that, I give them credit. In smaller classes, I glance at every written assignment turned in before giving credit. In larger classes, I randomly evaluate a sample of the assignments so students know they are taking a chance that they will get caught if they try to submit less than adequate work. How many assignments to sample cannot be established *a priori*. An instructor considering this strategy has to determine for herself how much time she has to read assignments

and how big a sample of assignments she needs to look at given her personal and institutional circumstances.

When I find CPAs that I deem inadequate, I give the students a written warning and ask them to rewrite the assignment before I deduct credit. I have found that students at my university generally attempt to complete the assignment in some serious fashion even without a warning, but definitely after they are issued a warning and have to rewrite an assignment. For example, in the spring of 2000, I had 60 students do 18 CPAs. Of the completed assignments, I had to write only five students one time each to encourage them to do a better job completing the CPAs. Spot checks of their work after the warning showed their level of engagement with the assignments had improved to an acceptable level. (Note: Faculty at other institutions may need to issue more warnings and deduct more credit than I have had to.)

ASSESSMENT

In 2003-2004, I undertook a systematic assessment of the benefits of a discussion-based course organized around CPAs, as compared to a traditional lecture course, in terms of four desired outcomes: (1) getting beyond information transmission, (2) creating a democratic culture in the classroom, (3) fostering student engagement with the course material, and (4) helping students learn more of the informational content of the course. (An assessment of the extent to which the lecture and discussion classes satisfy the three basic objectives of the course is available on the *Teaching Sociology* website.)

To establish a baseline for comparison, in the fall of 2003, I taught introduction to sociology as a traditional lecture course. The vast majority of class time (80%) was dedicated to my lecturing. When discussion did break out in class (10% of class time), it was usually unintentional. In the spring of 2004, I taught introduction to sociology as a discussion-based course. Over the course of

the semester, I spent 26 percent of class time lecturing to the students. By contrast, students spent nearly 60 percent of class time in small or large group discussion. (In both courses, administration or other activities not directly related to the course materials took up the remainder of the time.) Both semesters the course was offered under the same number and description, assigned the same textbook, and restricted enrollment to 70 second-year students. The key difference between the two semesters was that the discussion-based course was organized around the CPAs. The question is whether the discussion-based course better realized the desired outcomes than the lecture course. I assessed the desired outcomes in three ways. First, I used certain items from the university's official Teacher and Course Evaluation (TCE) data for the course. Second, I used a number of items from a survey I specially designed to get at the particular outcomes to which I aspire. Third, I used exam scores to measure one aspect of student learning.⁵

Getting Beyond Information Transmission

A general objective of the discussion-based course is to downplay transmission and memorization of factual information and to emphasize higher order thinking skills such as synthesis of ideas and evaluation of arguments. Table 1 compares the two courses on the extent to which they emphasized these different mental activities.

By significant margins, students reported that the discussion-based course emphasized evaluation and synthesis more than the lecture course, and that the lecture course emphasized "memorizing facts or procedures" to be repeated "pretty much in the same form" more than the discussion-based course.

⁵When appropriate, I used independent samples t-tests to determine whether a statistically-significant difference exists between the two courses. For t-statistics where Levene's test for equality of variances is significant at the .05 level or below, equal variances are assumed; otherwise, unequal variances are assumed.

I also asked students about their level of agreement with the following statement: *The instructor stimulated independent thinking.* Whereas less than half of the students in the lecture course (43.5%) strongly agreed with this statement, fully 75 percent of the students in the discussion-base course strongly agreed. This is exactly what I expected and hoped for.

Creating a Democratic Culture and Sense of Ownership

As Brookfield and Preskill (1999) argue, discussion-based courses hold out the promise not only of realizing course-specific or skill-based learning objectives, but also of fostering respectful engagement of students with one another and with the professor, and in doing so creating a model for democratic civil society. One way I think about this issue concretely is in terms of "ownership" of the course. Lecturing is authoritarian in the sense of having a single individual as the source and summit of knowledge and everyone else as subordinate to that individual. This situation relieves the students of any sense of responsibility for the success of the course. A "good course" becomes one in which the professor lectures well and a "bad course" one in which the professor lectures poorly. But a democratic culture is one in which individuals feel some responsibility for the common good. I aspire to foster in students a sense that they share responsibility for the success of the course—our political community writ small.

Tables 2 and 3 display various measures of the democratic culture and sense of ownership of the course from the students' perspective. Table 2 reveals that almost half of the students in the lecture course (48.6%) responded that responsibility for class being successful on a daily basis was primarily the students' or evenly divided between the professor and the students. These are respectable numbers for a course in which I made no specific effort to cultivate this. But they pale in comparison to the 85.3 percent of students in the discussion-based course who responded that responsibility for suc-

Table 1. Mental Activities Emphasis by Type of Course

To what extent has this course emphasized the following activities?	Level of Emphasis	Lecture Course	Discussion Course	t
(A) Memorizing facts or procedures so you can repeat them pretty much in the same form	% Very Little Mean (Std. Dev.)	11.4 2.57 ^a (.94)	35.3 3.09 ^a (.89)	-3.31*
(B) Synthesizing and organizing ideas, information, or experiences into new and more complex interpretations and relationships	% Very Much Mean (Std. Dev.)	27.1 2.03 ^a (.80)	44.1 1.65 ^a (.66)	3.06**
(C) Evaluating information, arguments, or methods and determining the soundness of their conclusions	% Very Much Mean (Std. Dev.)	21.4 2.36 ^a (.93)	41.2 1.81 ^a (.82)	3.68*

^aResponse Categories/Coding: 1 = Very Much, 2 = Quite a Bit, 3 = Some, 4 = Very Little, 5 = Not at All

*p < .001 **p < .01

cess is primarily the students’ or evenly divided. Only 14.7 percent of students in the discussion-based course felt the responsibility was primarily the professor’s, compared to 51.4 percent in the lecture course.

Table 3 shows that this sense of responsibility was not limited to “students” corporately; many students in the discussion-based course felt their contributions as individuals were important to the class as a whole.

Table 3 also demonstrates that the discussion-based course was more successful in bringing multiple voices into the public forum of the classroom. More students in the discussion-based course than in the lecture course agreed or strongly agreed that hearing the views and experiences of other students was an important part of the class (86.7% vs. 52.9%) and *something they benefitted from* (88.2% vs. 55.7%). I have heard colleagues complain that students do not want to listen to their peers: these results suggest that this may be due to the way student contributions fit into the course. Perhaps instructors are allowing too much unstructured, aimless rumination, which students rightly feel is a waste of their time.

Finally, Table 3 shows that students in

the discussion-based course saw me as more interested in their points of view and more receptive to their questions. No matter how many times “Sage on the Stage” lecturers tell students they welcome questions and comments, their actions speak louder than their words. By actually modeling that receptivity and making it central to the very organization of the class sessions, I was able to realize these goals more in the discussion-based course than in the lecture course. By fostering a democratic culture based on mutual respect and a sense of student ownership, the discussion-based course truly became more of a *collegium* than any lecture course I have taught.

Fostering Student Engagement

I have previously mentioned Astin’s overarching conclusion that “students learn by becoming involved.” By involvement, Astin (1985) means simply “physical and psychological energy that the student devotes to the academic experience” (p. 151). The time a student spends on a course is a rough but appropriate operationalization of involvement or engagement.

Table 4 reports two different measures of student time spent, one from my own course evaluation and one from the univer-

Table 2. Students' Sense of Responsibility for Class by Type of Course

Responsibility for class being successful on a daily basis was:	Lecture Course	Discussion Course	Pearson χ^2	Level of Significance
(A) Primarily the professor's	51.4%	14.7%		
(B) Primarily the students'	2.9%	10.3%	21.80 (df=2)	.000
(C) Evenly divided between the professor and the students	45.7%	75.0%		

sity's standardized evaluation. I asked students how many hours per week, on average, they spent on my class. Students in the discussion-based course reported spending 5.3 hours per week compared to 3.8 hours per week for students in the lecture course. Put otherwise, the students in the discussion-based course spent 40 percent more time per week on my class overall, and over twice as much time outside of class (factoring out the 2.5 hours per week most students spent in class). Although 5.3 hours per week is less than most faculty would hope students would devote to a three-credit-hour course, the comparative data here suggest that the discussion-based course does foster more engagement with the class than the lecture course. Unfortunately, I do not have more detailed data on *how* students spent their time; future research ought to be more elaborate in conceptualizing and operationalizing this variable (cf. Howard 2005).

The university also asks students to compare the amount of time they spend on a class compared to other classes they have taken. Table 4 shows that 43 percent of students in my discussion-based course reported spending *more or much more than average*, compared to only 7 percent of the students in my lecture course. By contrast, 29 percent of the lecture course students reported spending less time than average, compared to only 9 percent of students in the discussion-based course. Finally, students in the discussion-based course looked forward to attending class more than students in the lecture course, despite the fact that the course content was the same. When

I asked students to respond to the statement, *I looked forward to attending class*, two-thirds (66.2%) of the students in the discussion-based course strongly agreed, compared to just 42.9 percent of the lecture course students.

Helping Students Learn Information

Although I consider encouraging higher order thinking skills, fostering a democratic climate, and having students engaged with the course to be profound achievements in themselves, I also recognize that for many faculty and administrators the bottom line assessment for any pedagogy must be an objective measure of student learning. Given my course objectives and the types of mental activities and cultural sentiments I try to foster through the discussion-based course, it is difficult to create reliable measures of student learning across the two types of courses. So, I decided at the outset to use a blunt but reliable measure: I would simply compare student scores on the multiple choice component of exams.

On two midterm exams, I asked students in both courses the same multiple choice questions. The questions were a random sample of the population of questions in the instructor's manual I edited for the textbook we used in class (Yamane 2002). These questions simply tested knowledge of the informational content of the course. A typical example is:

What usually happens to secondary groups when individuals exit and enter?

- A. There is a change in the nature or identity of the group
- B. They die out

Table 3. Measures of Democratic Culture and Sense of Ownership by Type of Course

To what extent do you agree with the following statements about the class/instructor:	Level of Agreement	Lecture Course	Discussion Course	t
(A) My individual contribution to the class as a whole was important	% Strongly Agree/Agree Mean (Std. Dev.)	22.9 3.29 ^a (1.10)	52.9 2.53 ^a (1.01)	4.19*
(B) Hearing the views and experiences of other students was an important part of the class	% Strongly Agree/Agree Mean (Std. Dev.)	52.9 2.63 ^a (1.10)	86.7 1.82 ^a (.73)	5.07*
(C) I benefited from hearing the views and experiences of other students in the class	% Strongly Agree/Agree Mean (Std. Dev.)	55.7 2.46 ^a (1.12)	88.2 1.79 ^a (.72)	4.10*
(D) The instructor showed interest in students' points of view that were unconventional or contradictory to the instructor's point of view	% Strongly Agree Mean (Std. Dev.)	44.3 1.67 ^a (.68)	77.9 1.22 ^a (.42)	4.70*
(E) The instructor was receptive to questions	% Strongly Agree Mean (Std. Dev.)	61.4 1.40 ^a (.52)	86.8 1.15 ^a (.40)	3.20**

^aResponse Categories/Coding: 1 = Strongly Agree, 2 = Agree, 3 = Tend to Agree, 4 = Tend to Disagree, 5 = Disagree, 6 = Strongly Disagree

*p < .001 **p < .01

- C. New groups branch off
- D. Nothing much

The multiple choice questions simply tested the course's informational content. An improvement in multiple choice scores from the first semester to the second would mean that students in the second semester learned more informational content.

Table 5 compares the students' performance in the two different courses. The average score on the first exam (15 questions) was 6 percent higher in the discussion-based course and on the second exam (20 questions) it was 11 percent higher in the discussion-based course. These average differences are not overwhelming, but they are significant both statistically and socially (e.g., because 2-3 points for a student can mean the difference between a B+ and A-

for the semester). These data suggest that the active and consistent engagement with the course material required in the discussion-based course paid dividends—even when looking just at the ability to memorize factual information such as that tested for on a multiple choice exam. Unfortunately, the approach I took in creating these multiple choice exams does not allow me to speak to the question of differential learning in different domains (e.g., recall versus application). Because it was not clear at the outset that there would be *any* difference between the two types of courses, I did not seek to test for learning at this level. The measure of student learning here is blunt, by design, but the results suggest that future efforts to use more complex measures of student learning are warranted.

Table 4. Student Time Spent on Class by Type of Course

	Lecture Course	Discussion Course
Mean hours spent on course per week (Std. Dev.)	3.8 (1.29)	5.3 (1.53)
<i>Compared to other classes you have taken, how much time did you spend on this course?</i>		
Much more than average	0%	11%
More than average	7%	32%
Average	64%	48%
Less than average	29%	9%

CONCLUSION

Although many of us would like to get beyond lecturing, we often lack concrete strategies for doing so, particularly in our larger classes. This paper suggests one such strategy for creating a discussion-based course. The success of such a course is predicated on students reading and thinking about the course material (receiving “first exposure”) prior to attending class so that class time can be devoted to more advanced learning activities grounded in discussion. The vehicle I use to achieve this first exposure to the course material is a series of “Course Preparation Assignments.” These assignments have been a great success in my courses, allowing me to foster student engagement by spending the majority of class time coordinating, facilitating, and leading discussions, rather than constantly lecturing at the students. I have used this strategy in introductory courses of 35 to 85 students that fulfilled a general education requirement (and so had few majors) at two private universities that consistently rank in the top 30 of the *U.S. News* rankings. The question remains of whether this strategy can be adapted to different types of institutions and courses.

Although I used this strategy with undergraduates at elite universities, it could surely be used in non-elite institutions. In fact, the strategy might be *more* effective in less elite institutions. As Howard (2005)

notes, citing research by Rau and Durand (2000), students at less selective institutions study far less outside of class than students in selective institutions. Some of this is certainly due to the differences in work obligations; Nathan’s (2005) study of her own university suggests that faculty need to be aware of the time constraints some students face. Still, Howard (2004) has used the “Just-in-Time-Teaching” approach, which is similar to this one in its requirement of student work outside of class, at his 1,800-student state university commuter campus where students average 27 hours of paid work per week (see Howard 2005:197). The JiTT approach itself was pioneered by faculty at Indiana University-Purdue University at Indianapolis, a *U.S. News* Tier 4 university. Moreover, according to the JiTT website (<http://www.jitt.org>), hundreds of faculty at dozens of institutions of all types have adapted the method.

Although I have taught 85 students in a discussion-based course, I do believe there is a practical limit to implementing this strategy in very large classes (of perhaps 100 students or more). As noted above, instructors in such classes must consider how much time they are willing to devote to grading assignments. Also, if the class is too large, many students will not have the opportunity to actively engage in the whole class discussions. This defeats the purpose of the discussion-based course. Furthermore, one of the biggest constraints on this

Table 5. Exam Scores by Type of Course

		Lecture Course	Discussion Course	t	Level of Significance
Exam 1 (15 points possible)	Mean Score	13.3	14.2	5.45	.000
	(Std. Dev.)	(1.00)	(.93)		
	Mean Percent	88	94		
Exam 3 (20 points possible)	Mean Score	14.4	16.6	6.58	.000
	(Std. Dev.)	(1.82)	(2.06)		
	Mean Percent	72	83		

strategy is the physical design of the classroom. Both the small group and full class discussions work best in classrooms where students can move their chairs and can easily see their classmates. So, I always request classrooms with moveable chairs and no more than a couple of tiers. Unfortunately, most classrooms that can accommodate 100 or more students are auditoriums with stadium-style fixed seating which make any extended discussions difficult, if not impossible.

Beyond the very large course, I believe this strategy can be implemented in many types of courses serving a variety of students. The easiest way to adapt this approach is in the length and complexity of the written assignments and, thereby, the level at which the in-class discussions take place. It may be that less elite students who have large time commitments outside of class need shorter and simpler questions leading to less wide-ranging discussions. Students in upper-division classes at all universities may be able to handle more sophisticated preparatory assignments and discussions than students in lower-division classes. The same may be true of classes which enroll primarily majors compared to those service classes that enroll mostly non-majors, regardless of level. Presumably upper-division students require less structured guidance than lower-division students, and majors require less motivation to prepare for and participate in class than non-majors. But even upper-division majors can disappoint, so whether the assignments are constricted or elaborate they give students a vehicle and motivation for engaging the reading material, coming to class prepared

for discussion, and ultimately becoming more actively involved in learning in general.

APPENDIX: COURSE PREPARATION ASSIGNMENT EXAMPLE

Chapter 12 Course Preparation Assignment: Hypothesis on Racial Inequality in America

Introduction: Still an American Dilemma?

In 1944, Swedish sociologist Gunnar Myrdal published a landmark study of American race relations. He maintained that the principles of equality at the heart of the U.S. Constitution clashed with the unequal treatment of African-Americans which he observed historically and at the time he was writing. This, for Myrdal, was *An American Dilemma* (the title of his famous book). While the position of African-Americans (and other racial minorities) has improved since then, inequalities remain. These inequalities are of great interest to sociologists.

Objective

To describe and analyze the causes of racial inequality in the contemporary United States.

Background

Consider the following data from the U.S. Census Bureau for 2001:

	Median Family Income	Percent of White Income
Whites	\$47,041	100
Blacks	\$29,939	64

Assignment

1. Read Chapter 12 of the textbook on racial inequality to familiarize yourself with its forms, causes, and consequences.
2. Generate at least five *testable hypotheses* you believe might account for the differences in income given above. In other words, the dif-

ferences in income are your *dependent variable*. What are the *independent variables*?

Note: Start with the hypotheses you think are most important or plausible; then go on to list rival hypotheses that you think are less important or less plausible and would therefore want to test and disprove as a sociologist. Remember: since you want to generate testable hypotheses, you need to be as specific as possible in formulating your answers.

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