Helping Students to Succeed in General Education Political Science Courses? Online Assignments and In-Class Activities

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The inclusion of supplemental online assignments and in-class active learning activities can lead to greater levels of student engagement and learning. Students reported that they were more engaged in the classroom and felt that both helped them in exam preparation. Both were also shown to have positively affected student performance and, perhaps most hearteningly, seemed to have had the greatest impact on lower achieving students.

On many college and university campuses the Introduction to US Government and Politics course is traditionally delivered as a lecture, often in a large auditorium. Class usually begins with a few late arriving students searching for seats. Most of the light in the room is provided by hanging projectors emitting images of lecture slides onto screens. As the last stragglers sit down, the lecturer checks the microphone by tapping it and proceeds to pick up where the last lecture left off. The students sit passively, only half listening, but they dutifully take notes when the lecturer advances to the next slide. The sounds in the lecture hall are usually the clacking of keyboards, the hushed whispers of side conversations and, as the end of class approaches, ominous groans when a new text-filled slide appears.

This is environment that many public (and private) colleges and universities place many of their first year students, in many ways their most challenged students, who are trying to juggle a new living environment, new personal responsibilities and freedoms, and new academic demands. The situation is further exacerbated by the fact that many of them come poorly prepared for college and that most would benefit from courses to help them improve their study skills. I was recently assigned a mid-afternoon large lecture class, and I wanted to change my approach to the class for two important reasons. Firstly, students often approached this required course with a mixture of apathy and resentment. Secondly, our university's administration was encouraging the department to (re)consider the course's delivery in light of its low success rates. This article will examine the effects of two changes to my Introduction to US Government and Politics course and seek to answer the following question: can incorporating online assignments and adding numerous in-class activities improve student engagement and learning?

What Is To Be Done?

The questions of retention and completion have become important ones for colleges and universities across the nation as they hope to instill in their students the skills to advance through their studies and graduate (close to) on time. At my university the retention rate fluctuates around 65%, which is below the state average. This also has the effect of helping support the financial situation of the schools that the students attend. This fact has not been lost on the upper administration, where budget concerns have (as in many public and private universities) taken on a new urgency. In several recent meetings on our campus the administration stressed the fact that raising the retention rate was also a faculty responsibility and that if instructors could just "reach out" to a small number of students, maybe as few as 50 across the university, we could meet the state average. Also spurring activity was the fact that my university recently went through the accreditation process (Southern Association of Colleges and Schools, in our case), and our Quality Enhancement Plan (QEP) was centered on the First Year Experience. In preparing the QEP, the university identified certain barrier courses where student GPAs averaged below 2.0 for several semesters. Somewhat surprisingly, most of these courses were found in the "soft sciences," such as sociology, history and political science, rather than in the more demanding "hard sciences."

At many universities administrative mandates often come on short notice and with the demand for immediate improvement, but this wasn't initially the case for us. Last spring the political science faculty that routinely taught the introductory courses (US Government and Politics and State and Local Politics) in our core curriculum were asked to establish a Community of Practice (COP) to brainstorm ways to improve student success. We were given a full year to investigate possible interventions, and we began to strategize about how to introduce more active learning exercises into the courses. But we also wanted to include more developmental skills activities in our courses, such as note taking and exam preparation, as well as to create more out-of-class assignments like take home quizzes or response papers. The faculty also wanted to include other student support organizations on campus as we did have some additional funding for

more supplemental instruction. To further assist the students, we also wanted to involve our campus's Center for Student Success and English Writing Lab.

However, as the spring semester drew to a close, we were "encouraged" by the upper administration to settle on an intervention for implementation in the upcoming fall semester. The faculty was a bit surprised by the acceleration of the timetable, and this led to some quick decision making. Rather than the more expansive course redesign alluded to above, we instead chose to pilot a series of online assignments from the Americans Governing website (http://americansgoverning.com), developed by Soomo Publishing, to supplement the course. One important factor in our decision was the fact that our department uses a common text, *Keeping the Republic*, and the publishing firm had worked closely with CQ Press to develop a companion site. Cost considerations also played an important role in this decision, and we wanted to keep student costs low. The faculty was aware that several different options existed from larger publishers, but we chose to remain with Soomo as several of us had good, albeit limited, experiences using the website. However, while I was confident that the online exercises could enhance student learning, I had less confidence in their ability to generate and encourage student engagement. So thinking again about student attitudes toward the course, I decided to include more in-class activities in the hope that a more active learning environment would also help to improve student engagement and learning.

Literature Review

The relationship between student engagement and student success in the classroom has been well documented, and the discipline of political science has begun to strongly encourage active learning to engage students (Blount, 2006; Elder, Seligsohn, & Hofrenning, 2007; Hunter & Brisbin, 2000; Kirlin, 2002; Perry & Wilkenfeld, 2006). However, when trying to determine why students are successful in the classroom, researchers tended to be fairly prosaic in their conclusions. They have found that prior preparation and knowledge were essential to understanding student success (Cavell & Woehr; 1994; Plant, Ericsson, Hill, & Asberg, 2005; Touron, 1983). Schuman and his collaborators have noted that grades in college were primarily determined by student aptitude and classroom attendance (Schuman, Walsh, Olson, & Etheridge 1985). Their findings were supported by Tiruneh (2007), who found that attendance had a statistically significant impact on student grades and also noted that instructors probably *should* find a way of making attendance some percentage of the final grade. Lin and Chen (2006) have

found that cumulative attendance produced a positive and significant impact on students' exam performance and that, not surprisingly, attending lectures corresponded to improved exam performance. Studying helps, argued Diseth (2007), who (also unsurprisingly) found that successful in-class performance was directly related to the amount of time spent studying. However, as Rau and Durand (2000) have found, the real benefit was seen for students studying over 14 hours a week. More traditional classroom activities have also been shown to increase exam performance, such as making notes and study guides available (LaSere Erickson & Weltner Strommer, 1991), encouraging good note taking (Peverly, Ramaswamy, Brown, Sumowski, & Alidoost, 2007), devising in-class exercises that supplement and contextualize homework (Cuadros, Yaron, & Leinhardt, 2007), and having reviews that allowed for the exchange of ideas, encouraged problem solving strategies, and assisted in studying (Huerta, 2004; Shapiro & Levine, 1999).

Despite the growing recognition that active learning fosters student success (Brown, Roediger, & McDaniel, 2014; Reeher & Cammarano, 1997; Simpson & Kaussler, 2009), the vast majority of political science classes are delivered quite traditionally, usually through lecture (Hartlaub & Lancaster, 2008). However, even the most elementary in-class exercises can encourage student engagement and help students gain a basic understanding of political fundamentals and current issues (Colby, Beaumont, Ehrlich, & Corngold, 2007). Reading the newspaper can significantly increase student interest in the political world, enhance their knowledge, and positively influence their attitudes towards community involvement (Huerta & Jozwiak, 2008). While informal class discussion can also lead to engagement, Oros (2007) has argued that structured debates can teach critical thinking skills. Even though some have argued that simulations may not be all they are advertised to be (Kille, 2002; Prince, 2004; Rochester, 2003), or that they need to be better assessed (Grosen & Washbush, 2004), studies have shown that they can increase student engagement (Caruson, 2005; Jones, 2008; Wakelee, 2008), and, as a result, several authors have observed better student performance (Frederking, 2005; Jozwiak, 2013; Shellman & Turan, 2006; Simpson & Kaussler, 2009). The development of civic competence is often an important component of US Government and Politics courses, and Bernstein (2008) has found that the use of simulations can enhance this learning goal and foster skills that can be useful in subsequent classes.

An emerging literature on civic competence and engagement outside of the classroom stresses alternative teaching pedagogies. Taking students out of the classroom and having them view city council

meetings is not only "cool," but also has also led to higher levels of civic engagement (Van Assendelft, 2008). Several studies have shown that service learning exercises fosters improved performance (Ayers et al., 2010; Jenkins, 2008; Saltmarsh & Zlotkowski, 2011; Smith, 2006; Sternberger, Ford, & Hale, 2005). Kiltz and Ball (2010) have argued that service learning is significant because it is an integrative learning strategy which combines meaningful community service with instruction. Linked learning and service objectives that challenge both the student and the community member can lead to tremendously beneficial outcomes. The students learn civic responsibility, and local communities are strengthened. Together with her co-authors, Goss (2010) has found that research service learning experiences allow students to link classroom theory to the challenges faced by organizations in civil society. Dahlberg, Barnes, Bush, and Bean (2000) have argued that service learning projects can also enhance participation and performance in the classroom, especially for students from traditionally underrepresented communities. Taken together, these studies argue that active learning, both in and outside of the classroom, can increase student engagement and improve student learning. And while the studies cited above often look specifically at examples from political science, it is not difficult to imagine their application in other disciplines, such as sociologists linking with local community agencies to engage students in service learning or chemistry classes monitoring local water quality to exemplify key concepts from organic chemistry.

With the advent of new technologies, additional on-line supplemental materials can also positively influence student performance *if* they are used by the students. Orton-Johnson's (2009) study showed that some students are reluctant to use these materials. They trusted the traditional texts as authentic, whereas the newer materials challenged existing learning practices and threatened expectations. Roberts (2008) noted that a considerable number of the students did not use the podcasts intended to help them prepare for exams. More positively, Taylor (2009) has also experimented with podcasts and found that, when combined with other teaching methods, students reported higher levels of engagement with the material. Another advantage of podcasting, argued Taylor, is that it can preserve a high-quality lecture that students can repeatedly listen in order to gain information or further clarifications. And he agreed with Roberts' observation that podcasts did allow for more time to engage with the students in the classroom. Creating on-line discussion forums can foster critical thinking, synthesizing, and applying knowing, which can enhance student learning (Hannafin, Land, & Oliver, 1999). Asynchronous discussion boards can encourage greater student

participation because they allow students more time to reflect on their responses (Spiceland & Hawkins, 2002). These boards may also provide an opportunity for students to exercise their voice, an important consideration for students who are more naturally reticent (Li, 2004). Wilson, Pollock, and Hamann (2007) found that reading the online postings from other students and the instructor was most clearly linked to improved course grades. Significantly, this was particularly true for students with lower GPAs. Hamman, Pollock, and Wilson (2009) have found that reading online postings was the key to explaining increased student performance, but responding to posts had only a small impact on grades. In sum, these studies largely agree with the earlier work of Pollock and Wilson (2002), who concluded that an online component might benefit all courses. As was the case with the active learning exercises, the literature on online learning suggests that these actives can benefit student learning. The online supplemental activities suggested above are not discipline specific, so any academic area could use these profitably.

On-Line Activities

At our institution, and I suspect many others, instructors routinely refer students to textbook companion websites. Most large publishers have companion websites for their texts which provide supplemental material including chapter outlines or summaries, flash cards, multiple choice quizzes, and short answer exercises that can assist students in reviewing for exams. Recently, publishers have begun to develop more robust websites that allow include sophisticated homework assignments as well as on-line chats (synchronous or asynchronous) and simulations or role playing exercises. Many also include additional content such as updates on current events or recent research. Our introductory American government course employed the Americans Governing website (http://americansgoverning.com) which had numerous content pieces related to key concepts presented in the textbook chapters. For the *Keeping the Republic*'s introductory chapter the website includes, for example, an excerpt from Locke's *Second Treatise*, a map that traced the spread of democracy, and two newspaper editorials that look at democracy and US foreign policy. The website also includes two videos for the introductory chapter. The first is a thirteen-minute clip that reviews contemporary debates over health care, and the second is a five-minute clip that asks students about what they thought the purpose of government might be. Over the course of the semester students were asked about once a week to do an online exercise designed to support material presented in lecture.

In this course there was a concerted effort to use audio or video clips from the website as supplemental activities. This was done for two reasons. First, there was a desire to add something more dynamic than extra reading in order to lure students into the content. Second, students respond to materials differently, and this would allow them to encounter the material in various types. Over the course of the semester there was a mix of assignments from various formats. For instance, the students watched a video on a local mayoral race in New Jersey to exemplify electoral politics. To help support the classroom discussion of presidential powers, the students listened to several audio clips from the Watergate tapes. In the course's discussion of federalism, the students read the transcripts of the phone conversations between the Kennedy Administration and state officials during the de-segregation of the University of Mississippi, but they were also able to listen to audio clips that helped them understand the *tone* of the back and forth between the two sets of officials. These clips were also useful later in the semester when the class discussed the politics of civil rights. While the presentation of this content was important, several video clips used were interviews with students that revealed their attitudes toward politics, which interested our students greatly. But perhaps most importantly, a few of the video clips showed students *doing* work related to politics such as conducting exit polls during a recent election in Florida.

While the website had a default selection of assignments to accompany each chapter, the software did have a degree of flexibility. Instructors had the option of choosing different assignments in each chapter as well as moving assignments from one chapter to another. Each assignment came with a series of pre-loaded questions, either informed multiple choice or short answer questions. The questions were comparable to those found in test banks that accompany most US government textbooks. It was possible to add questions to target specific concepts that were emphasized in lecture. The advantage of using the short answer option was that it encouraged students to engage in critical thinking and writing, the latter of which has been shown to be vitally important for student success. However, students' written responses must then be downloaded and assessed by the instructor. Given that this was a class of 225 students taught without the assistance of graders or teaching assistants, the multiple choice option was chosen. Once a question has been answered, it could not be changed. Despite numerous faculty warnings about this early in the semester, students often suffered negative consequences for their lack of attention to this detail. However, this eventually encouraged the students to preview the questions, listen/watch attentively, take notes, and then attempt to answer the questions. This pattern of behavior, if consistently followed, helped students develop more effective study habits. As soon as the students were done answering the multiple choice questions, they received feedback.

There were some drawbacks to the multiple choice exercises though. There was always the potential for students to work in groups and share answers. But at the same time if some of these questions, or variations of them, were used on the exam, the chances for student success were lowered if they didn't do the work themselves. Another problem with the software in that particular semester was the fact that it didn't include a close time which ended student access to the questions. This problem was mitigated, however, by downloading a comma separated file from the on-line grade book just after an announced due date and time passed. In this semester the assignments were due at the beginning of class, so I simply downloaded the spreadsheet just prior to heading to class. This took just a few seconds. More recent versions of the publisher's software have resolved this issue, enhancing the functionality of the website. In sum, using these supplemental materials enhanced student engagement in the class by requiring them to think about the content outside of large lecture. These assignments were also small, low stake assignments that, if taken seriously, allowed students to easily accumulate points. They also had the added benefit of helping them prepare for the exams. The advantages of the assignments far outweighed their disadvantages, which were largely related to technical glitches or student learning curves. But each of these can be allayed, either through technical support calls or constant reminders through in-class announcements and online postings in the course software.

In-Class Activities

It is not uncommon for instructors to build up a repertoire of activities with which they feel comfortable and that students find at least moderately interesting. But to avoid student disengagement, or even apathy, described in the introduction, I revised the course's content and created several new in-class activities. Some of these were more traditional, such as reading quizzes, but a few strived to be innovative, such as one-day simulations. Overall, the activities were designed to reward attendance and consistent effort. As in the case of the online assignments, most were low stake activities, worth about 10 points each, but which totaled to the rough equivalent of one exam.

A real challenge in teaching large lecture classes is keeping students caught up with their reading. To help ensure this, one of the activities I used was a reading quiz. Admittedly, this may not be the most innovative teaching tactic, but it can be used profitably in all classes, even in large lecture classes. Over the course of

the semester the students were given four reading quizzes, generally close to an exam, to underscore the importance of reading before the exam. I provided some timely warnings so they were not perceived as punitive pop quizzes. They usually contained ten questions over key concepts. Toward the end of class the quizzes were passed out, and students were given about ten minutes to complete them. However, early in the semester, more time was allotted to the quizzes, where the intention was to turn these quizzes into active learning exercises. After they completed the quiz individually, the students formed small groups and worked through the quiz again. This usually took about five minutes. At this point I asked them to signal their final answer by drawing a star around their choice. Then, as a class, we would walk through the quiz one more time, discussing the answers and considering why some choices were right and what might have disqualified the others. This allowed the students to get more experience with exam-like questions, it encouraged them to read critically, and it modeled the practice of working in groups. While this can take time, it effectively worked as an exam review and, at the same time, allowed the instructor to assess the class's preparedness. Given that the students worked in small groups and were usually able to answer all the questions correctly, the early semester quizzes were graded relatively leniently. However, on successive quizzes the scores moved from taking the group answers to mixing the individual results and the group results. Although the class did spend time discussing the answers on the last quiz, only the individual score was recorded.

Another way to move beyond the lecture is to embed links in a slide presentation, which is a particularly useful way to present photos, graphs, or videos. For instance, in the course's discussion of the Supreme Court, the role of the Warren Court was emphasized in discussions of judicial activism and presidential appointments to the bench. To support the lecture, one slide highlighted the controversial justice by including a photo of an "Impeach Earl Warren" billboard, and another slide pictured Justice Warren and President Eisenhower together. It is now a commonplace to embed video links into lectures to supplement that day's content, but nonetheless the strategic use of videos can also allow for a break from straight lecture. While shorter clips are useful to illustrate a point, they don't allow for much reflection, so longer clips are sometimes more useful. To increase their effectiveness, students were given a short ten question response sheet before viewing the clip. This allowed them to preview the questions and fill in the answers as they watched. A discussion would naturally follow where connections between the video and key concepts were made. In the course's discussion of the

Supreme Court, for example, the students watched ex-Justice Sandra Day O'Connor's visit to the *Daily Show* as a way to help explain the operation of the court. The clip was useful in two ways. Firstly, it begins with a discussion of the general population's lack of knowledge about the basics of US government (at which point student learning is "celebrated" because they do know most of these facts). But more importantly, Justice O'Connor then reflects on her time on the bench, discusses how appointments were made, and how the court she served on operated. This is a two-part clip which runs about ten minutes and really helped to contextualize the textbook's discussion of the Supreme Court.

To explain the struggle for civil rights, one can use a plethora of learning tools, including clips of speeches or the "Eyes on the Prize" documentary, but sometimes placing the students in an uncomfortable situation can also be an effective teaching device. In order to have the class consider racism and state power with regard to voting rights, students were given the 1965 Alabama Literacy Test. After they attempt to answer the first 25 questions, the sense of frustration in the classroom was palpable. As with the quizzes discussed above, the class worked in small groups through the 1965 test trying to answer the questions. Very few groups scored well, and the students really began to understand the test's power to disenfranchise. This activity was assessed through participation, but the ensuing class discussion was used to create a question (or two) on the exam, validating the students' participation and reflection.

The above examples were ways to move beyond lecturing by encouraging more student activity. However, the course also presented several opportunities for more truly active learning, including exercises in ideological self-assessment, polling, campaigning, and budgeting. One of the first exercises the class engaged in was participating in the Pew Center's "Where Do I Fit?" ideological survey. This was a short survey (20-25 questions) that placed students/respondents in several categories, ranging from enterprisers (who are fervent believers in the free market) to liberals (who are positive on most things governmental) to upbeats (moderates who tend to be younger and can, for instance, accept the notion that "torture can be a good thing") to disaffected (outsiders who have little interest in politics, little faith in the private sector, and little hope for the future). This tied very well to the chapter that analyzed the ideological composition of American society. The students did the survey online and then came to the class with a printout of their "identity." The students were then broken into their groups so they could physically see the distribution in the classroom. In a large lecture hall with seating split by a central aisle, it was beneficial to have the enterprisers up in one corner and the liberals down

in front at the opposite corner. By splitting these groups up this way, and then distributing the other groups between them, students saw the ideological spectrum and were able to a get a general sense of the distribution of opinions. Usually there was a small group of enterprisers, a smattering of social conservations and pro-government conservatives, a larger group of upbeats, and a significant showing for liberals (this distribution has usually held true over the years, even in more conservative Texas). There were usually a small number of *disaffecteds*. I gave an overview of each group's general characteristics and also reminded them that no one group was better (or worse) than another. The disaffected group was the one group that needed to be treated with care, as they (and everyone else) could see they were the smallest group (which could engender an even greater sense of marginalization). However, in a large lecture environment the groups were usually large enough to allow for anonymity so individual students wouldn't feel isolated or singled out.

When discussing public opinion and polling, another way of getting students engaged in the material was to actually have them construct their own surveys. It was beneficial to have an introductory lecture presenting sample surveys to help students model their own surveys. This was also useful in presenting problems related to polling. In this exercise the groupings from the ideological survey were also used. The students were asked to form ideologically like-minded groups numbering of about ten where they constructed their own surveys. As the instructor I roamed the room in order to encourage groups to avoid very simplistic questions ("Should marijuana be legalized?") and to develop something more sophisticated ("Should 'illegals' be given a path to citizenship through successful military service?"). Students invariably asked whether these questions should be "yes or no" or "something else." I usually responded that they were the pollsters but that they needed to consider the clarity of each of their questions, whether it forced or led respondents and how difficult would it be to tabulate their responses, all problems related to polling. Once the groups developed their ten questions, two students from each group role-played as pollsters (one asked the questions and the other recorded the responses) and surveyed the other groups in the class. The remaining group members sat in their place in the classroom and responded to pollsters from the other groups. The ideological groupings lead to interesting exchanges between groups, including questions such as, "Why are you asking that?," and, "You guys really think that?" In the following class period the exercise allowed an extended discussion on question and sample bias using student generated questions and data. Students who participated learn from the experience, but they were also validated as

they saw their questions used as in-class examples. In assessing this exercise, students were given credit for the quality of their work.

Showing campaign ads has been a traditional way of introducing students to electoral politics. It was a real eye opener for students who had seen neither Johnson's "Daisy Girl" ad nor Reagan's "Morning in America" ad, which allowed the class to discuss the advantages (and disadvantages) of negative and positive advertising. The Wisconsin Advertising Project (WAP) (http://wiscadproject.wisc.edu/) has several ads available for viewing and, when combined with the textbook, helped to trace out the history of political advertising. The WAP ads also had storyboards available to go along with the video clips. These storyboards were important as they allowed students to see how ads are planned and the relationship between images and text. They were also useful as models for another in-class active learning exercise. In this class the students were placed in random groups, and each received a large sheet of paper (11x17) with six rectangles and asked to create their own campaign ad. The students brainstormed about potential campaign themes and related images. They were encouraged to take into account the lecture material, but they were also given the freedom to be creative. As with the polling exercise, several student generated ads were presented to the class. These were used to inform discussion on the use of imagery. They were also analyzed for their overall effectiveness. In assessing this exercise, students were given credit for the quality of their work. Groups that worked to develop a theme and used appropriate images were more positively assessed. In a successive semester's State and Local Politics course this exercise was again used, but instead of groups being randomly assigned, the students were grouped based on their ideology. Each group was asked to present two ads, one ad that would appeal to their party's base and another ad that would try to appeal to independents, encouraging them to integrate concepts across chapters.

Unsurprisingly, current events can often be worked into almost any course on politics, which makes the class more relevant to the students. Over the course of the past few years the federal budget has been a source of considerable interest. While several on-line budgeting exercises are available, this class used the "You Fix the Budget" exercise from *New York Times*. This can be done on-line, but the basic elements of the exercise are available by downloading a table for classroom use. The exercise involved filling in a budgetary grid by dictated by taxing and spending options. For instance, students could reduce spending by cutting or reducing Medicare. But they also had the option of raising taxes by raising corporate tax rates or letting the Bush tax cuts expire. To get to the partisan

differences present in any legislature the ideological groupings from earlier in the semester were used. As expected, the liberals were much more willing to raise taxes, the enterprisers much more willing to cut spending, and the more centrist groups willing to consider a greater mix of the two. One of the lessons of the exercise, beyond suggesting that ideology drives a great deal of the debate, was that balancing the budget called for difficult choices and a combination of raising taxes and cutting spending was probably going to be necessary. When roaming the room answering student questions about the implications of cuts ("Who gets hurt by this?"), it became clear that they were clearly interested in the project and really did want to balance the budget while staying as true to their ideology as possible. Stopping by one group of enterprisers who were struggling, I asked what the problem was. "We're going to have to raise taxes. That hurts." It was also clear that these relatively young students were having no problem raising the retirement age and slowing the growth of spending on Medicare as a way to balance the budget. In terms of immediate assessment, the students were given credit for participation; no qualitative assessment was given.

The above examples are clearly most appropriate for political science courses, but the teaching strategies can be usefully applied across all disciplines, where participation and experiential learning lead to student engagement and learning. To a certain extent the point of the exercises was not the ultimate quality of the work generated in that seventy-five minute period, but rather the learning process as students grappled with the course's content. In many ways these in-class activities tried to emulate problem-based learning (Kaunert, 2009) where, moving beyond the traditional classroom experience, students are given the autonomy to work in small groups relatively independently of the instructor to solve complex problems based in real life (Duch, Grohl, & Allen, 2011; McKeachie & Svinicki, 2006; Williamson & Gregory, 2010).

The Sample

The theoretical literature suggests that the in-class activities should have encouraged student engagement in the classroom as well as improved student scores. To test whether the students were engaged in the class, a survey was done at the end of the semester to assess their attitudes on both the online assignments and in-class activities. There were approximately 225 students enrolled in the course. The course met in a large lecture setting that had a capacity of 250 seats. This was a seventy-five minute class that met twice a week at 2:00 in the afternoon. Over 95% of the students were either first or second year students, with a smattering of juniors and seniors. No attempt was made to determine

whether there was a difference between the attitudes of the lower and upper division students, nor was any demographic data collected. The students were asked the following questions about both the online and in-class activities: "Did you do the online assignments?," "Were the assignments helpful for lecture?," "Were the assignments helpful for understanding concepts?," and "Were the assignments helpful for exams?" The students were also asked about whether the in-class activities kept students engaged. Finally, the survey asked what grade the student expected to receive in this class. The number of usable surveys was 135, which was significantly lower than the 200-odd students that were in class that day. The lower number was due to the fact that more than a few students did not fill out *both* sides of the survey.

As Table 1 shows, a very high percentage of the students did the online assignments, which was to be expected given that they were graded assignments. It was also interesting that the overall rate of participation was slightly higher for the online assignments than the classroom activities and can be explained by ease of access.

Table 2 reports that students generally found the activities and assignments were helpful in making connections between content found online and in class. The scores for the classroom activities were slightly higher, however.

Table 3 reports that students generally found the activities and assignments were valuable, and, overall, the students felt that both helped them prepare for the exams. These figures were slightly lower than reported for the helpfulness in understanding key concepts. This was an interesting result and was probably due to students expecting a more direct and immediate benefit on the exams.

Finally, Table 4 reports student engagement. The figures for the in-class activities show high levels of student engagement. Nearly 85% of the students felt that these activities kept them engaged in the class. While this particular class was not asked about their engagement as a result of using the online activities, a subsequent class (operating along the same overall course design) was asked this question, and these results are reported in the "Online" column. There was a considerable degree of difference as the students reported far lower degrees of engagement. Clearly there are some severe challenges comparing these two groups, and not too much should be read into these figures, but they do suggest a real difference in levels of engagement.

Indirect measures, such as surveys, can be useful in assessing the degree of student engagement. As shown, students reported that they felt that the in-class activities and online assignments positively influenced their attitude toward the course. They responded that

Table 1
How many times did you complete the activities/assignments?

	In-Class %	Online %
Always	45.9	54.8
Almost Always	40.0	36.3
Sometimes	12.6	5.2
Almost Never	1.5	3.0
Never	0.0	.7

Table 2
How helpful do you feel the activities/assignments were in understanding course concepts?

	In-Class %	Online %
Extremely helpful	25.9	16.3
Somewhat helpful	65.9	60.7
Neither helpful nor unhelpful	4.4	9.6
Somewhat unhelpful	3.7	11.1
Not at all helpful	0	2.3

Table 3
How helpful do you feel the activities/assignments were in your preparations for in-class exams?

	In-Class %	Online %
Extremely helpful	19.3	15.6
Somewhat helpful	62.2	56.3
Neither helpful nor unhelpful	12.6	13.3
Somewhat unhelpful	4.4	8.9
Not at all helpful	1.5	5.9

Table 4
How helpful do you feel the in-class activities were in keeping you engaged in the class?

	In-Class %	Online %
Extremely helpful	45.9	9.92
Somewhat helpful	43.0	40.07
Neither helpful nor unhelpful	5.2	25.79
Somewhat unhelpful	3.0	11.11
Not at all helpful	3.0	13.09

the activities also contributed to learning the material. However, did student learning increase as a result of completing the online assignments and participating in the in-class activities? One way to partially answer this question is to compare exam results of questions taken directly from the online assignments with the overall exam scores. When answering these questions on the exam, students were usually prompted to consider the online activity, so a standard four option multiple choice question would look something like this: "From the Americans Governing assignment on JFK vs. Barnett, Governor Barnett did not abide by the U.S. Supreme Court decision to integrate the University of Mississippi because he thought segregation laws with regards to education were…" and "From the Americans Governing video on local parties, we saw an incumbent

advantaged in the usual ways, such as political organization and fundraising, but in the case of Newark an additional advantage was…." The rationale for the selection of each question was a desire to have the students recall key concepts, as is the case in the former question, or place new information in the context of other course content, as is the case in the latter question.

As Table 5 shows, the students performed better on nine out of ten questions related to the online exercises. The overall average on the exam questions scores from the online source was approximately 79%, about 15% points better than the 63% overall exam score for the semester.

On exams the students were also asked to answer questions related to the in-class activities. For example, two questions from the first exam were: "In the 'Where

Table 5
Online assignment averages compare to overall exam averages

	Online AVG	Exam AVG
JFK/Barnett	89.05	63.12
Local Party	69.71	64.90
Exit Poll	82.71	64.90
Al Gore/Internet	79.80	64.90
Local News/Sensationalism	61.06	64.90
# Congressional Seats	65.36	60.00
Legislative Process	91.22	60.00
Watergate	85.85	60.00
Supreme Court	74.27	65.78
Symbolic Speech	86.89	65.78
Overall Average	78.59	63.43

do I fit?' class exercise, the group that had the most faith in the nation, its leaders, and progress in the nation was the?" and "In the 'Where do I fit?' class exercise, the two groups which disagreed the most were?" Students were offered four choices. Examples from the fourth exam, for instance, were, "As we discussed in class and also saw in the O'Connor/Stewart interview, which Chief Justice had billboards erected urging for his impeachment?" and "As we saw in our in-class exercise, in contrast to the Kentucky display of the Decalogue, the Texas display was ruled acceptable by the US Supreme Court because?"

As Table 6 shows, the students did not do as well on these questions as they did on the online questions, doing just about as well as the exam average. The overall average of the exam questions scores relating to the in-class activities was slightly below 62.91%, a shade below the 63.43% overall exam score for the semester.

In the semester that this course was taught I did not teach a second large lecture course using a traditional lecture approach, so an immediate control group does not exist. However, I did have a similar class the previous semester that lacked significant amounts of in-class activities and had no online assignments. Using this class as a control group, there is some evidence to suggest both the online activities and the in-class exercises had a positive impact on student learning. When comparing the current semester's scores to the past semester's scores on similarly worded exam questions, where the main, and usually only, difference was the "prompting" clause, the current semester students scored about 11% higher, suggesting that these assignments were a useful supplement to the lecture. (See Table 7.) As evidenced in Table 8, even though the students didn't score as highly on the questions related to the in-class activities, there was about a 10% improvement in scores when compared to previous semesters, suggesting that these in-class activities did

provide a way for students to learn and retain information.

In traditionally taught large lecture classes on our campus, and I suspect on many other campuses, additional opportunities for graded assignments simply don't exist, and students are largely assessed through exam performance. However, in this course the online assignments and in-class activities allowed for more graded assignments, which were expected to positively impact student learning and would be evidenced by high grades on these assignments as well as raising the overall grade average. In order to assess whether the assignments and activities actually helped the students, it is useful to compare student performance on these additional assignments to their exam scores.

As Table 9 reports, the scores on the online assignments and in-class activities co-vary with exam scores, although the decline on the in-class activities is much steeper than the decline on the online assignments. The *distance from grade* columns are a very simple measure which compares the average score on a task with the lowest possible score to maintain a grade (for instance, 90 points for an "A"). The table initially groups students by their exam scores, so those students who averaged an "A" are together in the "A" row. The table then reports their average scores on the online assignments and in-class activities and then the *distance* from the overall exam average. Table 9 shows that as the average exam score declines the *distance from grade* score increases, meaning that students who score less well on exams tend to be helped by the additional online assignments and in-class activities. Therefore, students who tend to perform the most poorly on exams tend to be helped the most by the additional assignments. If the online assignments and in-class activities are weighted in proportion to their contribution to the overall course score, which was about one-third of the grade, then the effect is about a -1.49 percentage point for A students, a +.41 for B

Table 6
In-class assignment averages compare to overall exam averages

	Online AVG	Exam AVG
Where do I Fit? Enterprisers/Liberals	82.19	63.12
Where do I Fit? Upbeats	52.51	63.12
Literacy Test	70.77	63.12
Electoral Map/Purple	60.09	64.90
Survey/Word Order	91.34	64.90
Iraq Photos/Frame	79.32	64.90
Budget/Liberals	34.63	60.00
Budget/Cuts	49.76	60.00
Congressional Power	49.27	60.00
Warren Billboard	33.49	65.78
SC Dissent	80.78	65.78
Decalogue	70.78	65.78
Overall Average	62.91	63.43

Table 7
Current semester question scores for online assignments compared to last semester

	Current	Past
Local News/Sensationalism	61.06	51.01
Exit Poll	82.71	79.19
# Congressional Seats	65.36	49.46
Watergate	85.85	69.93
Overall Average	73.75	62.32

Table 8
Current semester question scores for in-class activities compared to last semester

	Current	Past
Electoral Map/Purple	60.09	61.74
Survey/Word Order	91.34	85.23
SC Dissent	80.78	57.74
Decalogue	70.78	58.45
Overall Average	75.75	65.79

Table 9
Class Average "Task" Comparison

	In-Class Activities	Distance from Grade	Online Assignments	Distance from Grade
A	90.69	+.69	80.27	-9.36
B	83.03	+3.03	79.46	-.54
C	75.75	+5.75	76.00	+6.00
D	71.80	+11.20	74.63	+14.63
F	66.03	+16.03	73.56	+23.56

students, a +1.94 for C students, a +3.96 for D students and a +6.54 for students whose exam scores were not in the passing range. At the upper range the effects are small but are not insignificant at the lower range. Simply put, these additional points can make the difference between passing and failing.

Discussion and Conclusions

Having students answer multiple choice exam questions and then having them machine graded is, at best, a survival mechanism for instructors in a large lecture course with student numbers in the hundreds. Seen from the most critical perspective, this is just rote learning that simply continues the trend of "mindless bubble filling" which does not lead to the critical thinking that instructors so often hope for. And there is certainly the possibility that students will take not take the time to work diligently on these assignments, for instance by sharing answers, which undermine the intention of the online assignments. If these assignments were counted only as homework, there might be an incentive to behave this way, but given that many exam questions do show up on exams and are clearly noted as coming from the online assignments, student shortcutting should be minimal.

From an instructor's perspective the online assignments were a real bonus. They were useful in order to emphasize certain points, especially if these were the same concepts that previous semesters' students had more difficultly grasping. The online assignments were also useful to illustrate and enrich classroom presentations and discussions. As the surveys have shown, these assignments were received positively by students. The vast majority of the students did complete the assignments, and most of them felt that the assignments helped them understand the course's key concepts. Also important is the fact that the students felt that they were useful in helping them do better on exams. In this course these online assignments were referenced in the classroom, but they not discussed in detail so that their impact could be assessed relatively independently. Student attitude seems to be supported by the evidence as the average score on the questions related to the online assignments were about 16% above the overall exam average.

Student success on these questions could be related to the fact that students had already *seen* them and could study the questions with a reasonable certitude that at least a few of them would show up on the exam, which is exactly the point. If three or four online assignments were covered on each exam, students would need to memorize approximately 15-20 questions, a daunting task to be sure. An attempt to do so would not necessarily be a waste of time, though, as they would be engaging in some extensive reviewing.

The improved student scores on exam questions covering information presented in the online assignments suggest that encouraging the retrieval of information as a teaching strategy can be beneficial. Brown, Roediger, and McDaniel (2014) argue that students who take low stakes quizzes or engage in other practices that encourage information retrieval tend to retain more information, do better on exams, and are also better able to apply concepts in different settings. They also report that students come to appreciate and desire these activities and report higher levels of satisfaction with their classes. The high scores given to the effectiveness of the online assignments by this class align nicely with their findings.

Admittedly, there were a few drawbacks to the online assignments related to the technology. Firstly, at the beginning of the semester it will be necessary to get all the students to sign up. While I encouraged this verbally, through email, and in class, there were a few students who were tardy in completing this task. The Americans Governing site was relatively straightforward and getting signed up was easy, but a few students did have trouble with these rudimentary steps. Finally, a few students will claim economic hardship and will ask to be excused from these assignments, but this can be handled on a case-by-case basis.

As was the case with the online assignments, the in-class activities were positively received by students. Most of the students were there for the in-class activities and felt that they helped with course's key concepts and helped them get ready for the exams. Also on the positive side of the ledger was the very high level of student engagement reported on the surveys. While attendance in large lectures can be a problem, these exercises seemed to combat wavering student commitment by giving them incentives to come to class: they could receive points for being there and participating, the activities would be on the exam (answering a perpetual student question), the activities were actually interesting, and student learning was enhanced.

The effectiveness of in-class activities is also a little cloudier, especially when compared to the online assignments, as the mixed results on exam questions testify. Rather than simply suggesting that some students just missed the point, it is necessary to consider whether the instructor failed to clearly make the necessary points or conclude effectively. In looking at those questions where the students scored below the exam average, what becomes clear is that more time needed to be given over to the exercise. Students did tend to score better on questions on which we did spend more class time. They also didn't do quite as well when the activities were embedded in the lecture. This was certainly the case with the *Congressional power*

question where we discussed this at the beginning of the lecture. Even though I warned them to pay attention during the lecture (and did make the lecture slides available to the students through Blackboard) the fact that the *purple* Electoral College map was discussed at the very end of class probably explains the lower score. The lowest scoring question, about Earl Warren, may be best explained by its close association to traditional lecture. Even though, as discussed above, his time on the court was discussed in class, a photo was included in the lecture, and he was also discussed in a video that was shown in class, the discussion clearly failed to make an impression with the students.

Despite some disadvantages associated with both the online assignments and in-class activities, their benefits clearly outweigh the costs and can be used by all instructors regardless of discipline. Often it requires only a simple referencing of an assignment or activity to get students thinking and making connections across chapters, and students do think about how to connect and integrate online and in-class activities to the course content. The implementation of the online assignments was relatively unproblematic and it is not difficult to find textbooks (from accounting to zoology) with a robust online component that can be used by instructors to encourage informational retrieval and recall. Students responded positively to the online assignments, and their levels of participation were high, as were the homework scores. This may be important point for departments who may be facing similar challenges with student success and retention and are looking for a relatively easy way to supplement their instruction.

Getting faculty to buy into more in-class activities may be more challenging, as they require much more time and energy. Their planning and implementation comes at a cost, but as the literature on the benefits of active learning continues to expand, reluctant faculty may take up this challenge. When the students were engaged in any of the in-class activities that semester, the classroom had a dynamic atmosphere, much more so than the standard lecture hall discussed in the introduction. Students were moving about, asking questions, talking to each other, listening to students who were not *like them*, problem solving, and *doing* political science. The extra "attention" from both the in-class activities and the online assignments raised levels of student engagement. Most hearteningly, they also positively affected student performance and had the greatest impact on lowest achieving students, who may also be a college's most challenged students. Taken together, both the online assignments and in-class activities were important to our discipline's course redesign, and they will certainly raise student success rates, remove the perception that the course is a barrier course, and lead to greater retention and completion.

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