

Incorporating Active Learning in Large Lecture Classes

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Large lecture classes present unique challenges and opportunities. A CSU San Bernardino instructional development grant enabled us to hire student assistants for our large-enrollment geography course in order to conduct small group discussions around a series of videos shown in class. After the student assistant-led discussions, some groups were called upon to report their discussions to the entire class. Student response to this innovation was positive; many of them enjoyed the opportunity to discuss a controversial topic.

Introduction

COURSES TAUGHT in a large lecture setting require creative pedagogical approaches, as they often lack opportunities for discussion and interactive experiences. This project addressed that pedagogical challenge, introducing active learning to a large lecture geography class (eighty-seven students) by creating small discussion groups. Groups were assigned debate questions that incorporated course content and objectives, such as a comparative analysis of different cultures and regions. The active involvement of students in discussion groups enabled them to improve their critical thinking and debate skills and enhanced the learning environment. Students were also given opportunities to improve their oral presentation skills by presenting their discussions/debates to the entire class.

The project was implemented during fall quarter of 1998. Funding came from a Faculty Instructional Development Opportunity Grant at California State University, San Bernardino.

Background

The general education requirements at CSU San Bernardino include a wide selection of courses in the social and behavioral sciences. This project involved one such course, titled "Social Sciences 165: Regions and Peoples of the World." Taught by both geographers and anthropologists, the course offers "a survey of major regions of

the world using general physical and cultural concepts to explain patterns and problems of human activities in relation to natural environments" (*Bulletin of Courses 2003–2004*, CSU San Bernardino, 332).

Regions and Peoples of the World is taught every quarter and has experienced significant increases in annual enrollment since 1994–95. Total enrollment jumped from 521 students during academic year (A.Y.) 1994/95 to 859 students in A.Y 1995/96, and so more sections were offered; but this resulted in even more enrollments. Over the past ten years, total annual enrollment has never dropped below 699 students, and in 2002–03 annual enrollment exceeded 1,000 for the first time (Table 1). This growth in enrollment in the course occurred during a time when overall campus enrollments remained relatively stable.

Project Description

On five occasions during the quarter, we devoted approximately half of a 100-minute class period to viewing and discussing a video from *The Power of Place* series, designed to accompany the textbook for the course, *Geography: Realms, Regions and Concepts*, by Harm deBlij and Peter O. Muller. On one occasion, we showed a different video, not from the series. After each showing, we divided the class of eight-seven students into nine groups (approximately ten students each) to discuss and debate a question based on the video.

We paid nine undergraduate student assistants to lead the discussion groups. The student assistants met on Tuesdays during the time the traditional lectures were given. They used this time to preview the upcoming video and “dry-run” the discussion questions, including likely points to be debated. On Thursdays they joined the class for the video, then led the small group discussions and attended the full class discussion/debate, during which selected groups reported their discussions to the entire class.

Discussing the video in small groups gave students an opportunity to examine specific topics in depth and enabled them to synthesize and analyze the material to an extent not possible in the large lecture format. We discovered that videos with controversial subject matter created the best situations for lively debate and insightful dialogue.

Table 1—Enrollment in Regions and Peoples of the World, 1993–2003

Quarter	Number of Sections Offered	Total Enrollment
Fall 1993	2	130
Winter 1994	3	208
Spring 1994	2	130
TOTAL 1993/94	7	468
Fall 1994	3	202
Winter 1995	4	215
Spring 1995	2	104
TOTAL 1994/95	9	521
Fall 1995	4	246
Winter 1996	5	319
Spring 1996	5	294
TOTAL 1995/96	14	859
Fall 1996	3	220
Winter 1997	4	311
Spring 1997	4	168
TOTAL 1996/97	11	699
Fall 1997	4	284
Winter 1998	2	240
Spring 1998	2	181
TOTAL 1997/98	8	705
Fall 1998	4	352
Winter 1999	3	223
Spring 1999	3	221
TOTAL 1998/99	10	796
Fall 1999	4	330
Winter 2000	3	307
Spring 2000	3	307
TOTAL 1999/2000	10	944
Fall 2000	3	314
Winter 2001	3	254
Spring 2001	3	322
TOTAL 2000/01	9	890
Fall 2001	4	308
Winter 2002	2	246
Spring 2002	3	312
TOTAL 2001/02	9	866
Fall 2002	2	250
Winter 2003	3	376
Spring 2003	3	389
TOTAL 2002/03	8	1,015

Groups were selected according to a different determinant each time, such as the first letter of students' last names or where students sat in the classroom. This altered group composition each time, allowing students to experience different group leaders and preventing one student from dominating a group.

Results and Conclusions

Students generally appreciated the opportunity to exchange views with their classmates and take an active role in the learning process, as reflected in comments on student evaluations; the following are representative:

The instructor's organization was good: films with discussion groups, lectures.

Organization was good. Discussions should be held earlier in class with questions given the previous class.

Good use of group discussion sections.

Group discussion helped somewhat, but not enough participation by class.

Discussions good but a little broad.

The group discussions were interesting and very helpful. It gave me a chance to interact and talk with my peers about current events and what-if situations.

Open discussion is good. It helps us learn more.

Group discussions worked better when students were allowed to make up the questions. Forces us to actively participate and give input.

Discussion groups are effective.

Groups discussion fairly good idea.

Discussions were interesting.

Discussion made a nice break between lecture sessions. They are interesting to see how others felt about certain issues.

Class discussions not well received with the exception of the forum where we chose pro or con side and debated.

Classroom discussions are great and the use of guidance overhead (approaches to discussion).

The discussion groups were okay. They could be improved by more controversial topics where more people would become involved.

I enjoyed the discussions in this class.

Discussion groups are good.

We responded to student feedback during the quarter by continuing to vary group composition.

Recruiting undergraduate students to be discussion leaders may be a challenge for others wishing to implement this idea. Although we offered to pay discussion leaders for their preparation time in addition to actual contact time, and although hundreds of students on campus had taken the course and were thus qualified to serve as assistants, we had difficulty finding students who were able and willing to serve. We recommend paying a wage higher than the on-campus student rate or pursuing creative means for giving course credit to discussion leaders. Where graduate students are available, this problem may be alleviated.

Funding sources at CSU San Bernardino are for the most part limited to departments, college deans, and a teaching resource center, with departments being the most likely to shoulder the costs. Although the project has not yet been repeated at San Bernardino, as neither of us has taught the course since 1998, we do plan to implement it the next time we teach the course. We anticipate that student assistants will most likely be paid by the department or given independent study credits for the course.

The selection of appropriate videos is critical. In contrast to the six videos from the *Power of Place* series, which contained basic descriptions of cities and regions with little controversial content, we also showed “China’s Only Child,” a moving documentary about China’s “one family-one child” program and some of the measures taken to enforce it. Discussions following this film were the most stimulating.

A discussion-friendly classroom is critical. In a pilot experiment in 1997, we attempted discussion groups in a trailer classroom that was at full capacity and it was difficult to rearrange the students into groups in such a small space. In 1998 we were fortunate to have an oversized auditorium-style room that allowed groups to meet in different areas. If separate classrooms cannot be secured for the discussion sections, we recommend arranging for an oversized room—ideally one with moveable chairs.

In summary, the addition of discussion sections to a large lecture class can be implemented with few additional resources besides funding and shows great potential for improving the quality of the educational experience.