CHAPTER 12. ENGAGING NON-MAJORS IN AN INTRODUCTORY POLITICAL SCIENCE COURSE VIA DEBATES, PRIMARY SOURCES AND CUT-UP CARDS

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Introduction

This chapter focuses on active learning as a means of achieving higher levels of student engagement, improving knowledge retention, and understanding. While the problem of student engagement is very common at all levels of the education system, it is of particular significance when teaching an introductory political science course to undergraduate students whose major is not related to the topics covered in class, and who do not expect to have any professional use for the knowledge that they could potentially acquire. In order to address the issue of low student engagement, I introduced three active learning exercises – a debate, a group analysis of a primary source, and cut-up cards – to distinguish between various political science concepts. In order to study the effects of the innovation, I collected both qualitative and quantitative data to evaluate the nature of the relationship between active learning, student engagement, and knowledge retention. Results show that while active learning methods lead to higher levels of student engagement, they do not seem to significantly affect knowledge retention and understanding.

Teaching innovation

The teaching innovation was conducted during the Introduction to Political Science course at the University of Economics in Bratislava in the fall semester of 2018. The course was taught to first year students from the Faculties of Economics, Informatics, and Commerce. The total number of students subjected to the innovation was forty-three, who were split into three seminars. When I was teaching this course in spring 2018, I was disappointed by the fact that students often seemed disinterested with topics that I considered to be inherently engaging myself. I also regularly noticed students being distracted, which was also confirmed by a colleague observer. I assumed that this was because I was mostly lecturing to the students. Their disinterest was reflected in their final exam performance as well. Therefore, I trialled three active learning methods in three different sessions aside from a short – 15-30-minute – introductory lecture at the beginning of each class.

The first exercise consisted of a debate. I began by dividing the students into groups of four to five. Then I introduced a statement related to the subject of the class (for example, nationalism as a political ideology). The groups were subsequently asked to choose either to defend or op-
pose the statement and find arguments to support their positions. The groups then presented
the results to fellow students, which was followed by a general discussion. I concluded the ses-
session with a summary of the various points of view presented.
The second exercise was a group discussion related to primary sources. Each group received an
extract from a manifesto of a political party and they were asked to identify the essential ideas
and link those to a relevant political ideology. Based on this, the groups developed an ideologi-
chal profile of the party which they presented to their classmates who offered them feedback in
return.
The third exercise consisted of using cut-up cards to identify the key characteristics of political
ideologies. The cut-ups contained the titles of basic concepts, major figures, and major proposi-
tions, such as for example: ‘tradition’, ‘Edmund Burke’ or ‘a priori sceptical view of social change’
for conservatism. Students worked in groups again and matched the cards with the relevant ide-
o logies. They were asked to justify their choices. Finally, I rewarded the most successful groups
with points towards their final mark.

Conceptual foundation of innovation
The practical issue that led to the introduction of the teaching innovation was the low level of
student engagement and subpar student performance on the final exam. The innovation was
informed by the established distinction between passive and active learning, often used in the
context of the debate between traditional teaching methods and progressive education. While in
passive learning students simply act as a recipient of knowledge (Petress 2008), active learning
aims to involve the student directly in the learning process (Bonwell and Eison 1991) because it
is believed to encourage a higher engagement level of students and better educational results.
Student engagement, which represents a key concept for active learning, is understood here sim-
ply as ‘behavioural intensity and emotional quality of a person’s active involvement during a task’
(Reeve et al. 2004: 147). In terms of educational achievement, I am mainly interested in knowl-
dge retention and understanding, referring to the lowest levels of learning outcomes according
to Bloom’s taxonomy (Armstrong 2018).
The design of the active learning exercises stem from the distinction between passive and ac-
tive learning, and thus are aimed at engaging students directly with the material, as opposed to
simply exposing them to information, as is the case with traditional frontal lecturing. The goal of
the active learning exercises was twofold: to provide external motivation and to encourage stu-
dents. External motivation is especially important when attempting to engage students who are
not familiar with a particular subject (Kvasz 2005), and both peer collaboration – through peer
challenge – and the focus of the exercises – debate, working with primary sources, and the use
of cut-up cards – were designed to stimulate engagement via motivation. Additionally, the extra
points that students could collect towards the final mark at the end of the last innovated class
exposed students to another external motivating component. The group format was intended to provide students with some scaffolding, eliminating any potential insecurity arising from limited familiarity with the subject matter and the need to speak out in front of a larger audience (Sajedi 2014).

The aim of this study was to evaluate the effects that these three active learning exercises have had on student engagement, knowledge retention, and understanding in the context of teaching the Introduction to Political Science course to non-major students. In order to accomplish this goal, I tested two hypotheses: (H1) Students will be more engaged with the active learning task than during a traditional lecture; (H2) Students who completed the active learning exercise will score higher on the final exam in those questions that were the subject of the active learning exercise than the students who did not complete the active learning exercise.

**Data collection and methods of analysis**

The data necessary for verifying the hypotheses were collected during and after the innovated classes. In order to verify hypothesis one, three kinds of data collection instruments were developed: a teaching diary, an observation form and a student survey. The teaching diary and the observation form had the same structure, but the teaching diary was filled out by myself right after each innovated class, and the observation form was completed by an observer from the ranks of my colleagues at the university during those same classes. I had three different observers, each covering the same class session across the three different classes of students. The data collected from both sources were used to compare the impact of the two parts – i.e. the traditional lecture and the active learning exercise – of each innovated class upon student engagement.

The structure of both the diary and the observation form purposefully encouraged the collection of qualitative data. The main structural requirement of the form, which I also stressed to the observers, was that student engagement was to be recorded in relative terms with regard to the two parts of the class (i.e. the introductory lecture and the active learning exercise). This allowed me to evaluate not only the level of student participation, but to a certain degree, also their enthusiasm and attention during the different parts of the classes. Even though collecting data on the latter two may lower the level of objectivity of the study, this approach is invaluable for realizing the aim of this study.

This data was analysed by performing a content analysis (Kohlbacher 2006; Shannon and Hsieh 2005). The logic of the analysis was deductive: I used three main categories (traditional lecture, active learning exercise and student engagement) as pre-established codes. Based on the definition of student engagement discussed above, I came up with five operationally relevant concepts and used them as lower level codes for student engagement: enthusiasm, attention, disinterest, distraction (qualitative aspect), and participation (quantitative aspect). The analysis proceeded
by going through the data, assigning parts of the text to the pre-established codes\textsuperscript{1}, and comparing the connections between these codes and the traditional lecture/active learning exercise respectively.

The student survey was also designed to supply data in order to evaluate the first hypothesis and was administered after each innovated class. Students were asked (1) to report, on a ten-point scale, how engaged they felt during the class, and (2) to think of an average session of a typical course during this semester and indicate if they felt more engaged during that day’s class or during a typical course session. This data was analysed using descriptive statistics.

In order to verify hypothesis two, quantitative data was generated based on student performance during the final exam. I used a quasi-experimental design, which consisted of a point score evaluation for four specific questions from the final exams of twenty two students from the Spring 2018 semester (the control group), and the final exams completed by the forty three students who participated in all three of the innovated classes in the Fall 2018 semester (the treatment group). The exams were different across the two semesters, but they intentionally included the same four questions related to political ideologies, which the students covered during the active learning exercises. For example, one of the questions consisted of listing the fundamental ideas of liberal political thought, which was directly addressed by the cut-ups exercise during the third innovated class. The same issue was covered solely via a ninety-minute lecture in the control group.

I analysed this data by performing a one-tailed independent samples t-test that compared the point scores of the treatment and control groups in order to establish if there was a statistically significant difference between the students who answered the relevant question based on knowledge acquired during traditional frontal lectures, and students who were engaged in active learning exercises.

Results

The results of the content analysis offer support for hypothesis one, and suggest a link between active learning methods and student engagement despite the fact that the course is unrelated to the academic majors of the students. While those concepts that were positively connected with engagement were far more frequently mentioned in relation to active learning than to traditional lecturing, the concepts negatively related to engagement were more prevalent for the lectures (table 1). The results are most pronounced for participation and distraction. References to participation were almost four times more frequent for active learning exercises than for lectures. Distraction, on the other hand, was mentioned more than five times more frequently for the traditional lectures than for the active learning lectures. The results are fairly consistent across the

\textsuperscript{1} Both explicit and implicit references to the categories were taken into account.
teaching diary and observation forms, which offsets, to a certain degree, the subjective character of the data.

Table 1. The number of references to engagement-related issues with regards to passive and active learning as recorded in the observation forms and the teaching diary across the five coding categories

<table>
<thead>
<tr>
<th></th>
<th>Traditional lecture</th>
<th></th>
<th>Active learning</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Observation forms</td>
<td>Teaching diary</td>
<td>Observation forms</td>
<td>Teaching diary</td>
</tr>
<tr>
<td>Attention (+)</td>
<td>4</td>
<td>4</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Enthusiasm (+)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Participation (+)</td>
<td>2</td>
<td>1</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Disinterest (-)</td>
<td>3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Distraction (-)</td>
<td>9</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

Qualitative content analysis of the data supports the hypothesis about the positive impact of active learning on student engagement even more strongly. While for attention the traditional lecture scored similarly to active learning, a more detailed look at the data showed that the mention of attention during lectures appeared mostly in connection to the beginning of the lecture. In all four cases when the observers referred to attention in relation to the traditional lecture, they also mentioned distraction. Distraction also characterized the end of the traditional lecture. Similarly, distraction also had a qualitatively different character in active and passive learning. In relation to active learning, it referred to a specific situation when students finished their group work and waited for classmates to complete the task. Low attention was thus caused by the timing of the task rather than the entire design of the task and could therefore be avoided. Distraction, as reported in relation to the traditional lecture was not qualified in any way, which suggests that it might be caused by the structure of the traditional lecture itself. Furthermore, when identifying disinterest in relation to active learning exercises, the observer only mentioned ‘slight disinterest’, while the references to disinterest for traditional lectures were not specific. Enthusiasm was reported three times, each time in relation to the cut-ups exercise during the third round of innovated classes.

Results from the student survey offer some modest support for H1. Since the survey was administered at the end of the class, the return rate of the survey was one hundred per cent. However, the response rate was lower for both questions, as some students chose not to answer them.
question one, the number of responses was 84 out of the total of 127 surveys returned (66%). 74 per cent out of the total of 84 surveys that contained an answer to this question indicated that the student felt more engaged by the just concluded innovated class. However, since I did not ascertain what a ‘typical course session’ meant to the students, support for H1 is limited.

For question two, the number of responses was 97 out of the total of 127 surveys returned (76%). In general, the students felt engaged by the innovated classes, with the average engagement score being 6.93 (out of 10). The third innovated class (the cut-ups exercise) scored the highest, with an average of 7.5. The first (debate) and the second (primary sources) innovated classes scored 6.8 and 6.5 respectively.

When it comes to the second hypothesis no significant support was found. As shown by the results of the one-tailed t-test that compared student knowledge and understanding of key concepts based on their responses to exam questions, students from the treatment group were not found to perform better on the exam questions than members of the control group (see table 2).

Table 2. Differences in mean scores between the treatment and control groups for knowledge retention and understanding in four selected questions from the final exam

<table>
<thead>
<tr>
<th>Treatment Group</th>
<th>Control Group</th>
<th>Difference of Means</th>
<th>t-test</th>
<th>df</th>
<th>p-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>43</td>
<td>12.84</td>
<td>2.78</td>
<td>22</td>
<td>13.00</td>
<td>2.93</td>
<td></td>
</tr>
</tbody>
</table>

Test: independent samples t-test, one-tailed.

Conclusions

This chapter reports on a teaching innovation which sought to stimulate higher levels of student engagement for first year students of the Introduction to Political Science course and improve the retention of knowledge and understanding. The results confirm extant findings in the literature and thus the link between active learning and student engagement (Buckley and Reidy 2014; Bromley 2013). However, this study could not find robust evidence for the existence of a similar link between active learning and knowledge retention/understanding. While the student survey offers limited support, the statistical analysis of student responses on the analysed exam questions do not. This result contradicts most existing studies, including those related to education in political science (e.g. Shellman and Kürşad 2006; Schnurr et al. 2014). One explanation for this could be the small sample size of forty-three students. Also, the study only focused on the effects of active learning on knowledge retention and the understanding of key concepts, which refer to the lower levels of Bloom’s taxonomy (Armstrong 2018). The next logical step is therefore to test the relationship between active learning exercises and knowledge retention for the higher levels
of application – analysis, synthesis and evaluation – where the positive effects of active learning could potentially be more visible.

Another possible explanation was noted by one of the observers, who said that while more students participated during the active learning activities than lectures, students only took notes at the lectures. This suggests that the students probably did not see active learning exercises as a learning opportunity in terms of knowledge retention and understanding. I could perhaps conclude each section not only with a summary of the presented viewpoints as I did in relation to the first innovated session, but also with the major points that students could take away from the applicable class. The problem could also be partly addressed by designing the assessment more in line with the desired learning outcomes (Biggs 2003). Since the teaching methods that I employed as part of my innovation were not only aimed at knowledge retention, but also at understanding, it might be useful to assess students through a writing task, such as an essay.

My findings about active learning and knowledge retention resonate with Kováčová’s chapter in this volume (chapter five) that included a similar study partly in virtually the same cultural setting at Masaryk University in Brno. This suggests that Slovak and Czech first-year university students have been so accustomed to the traditional methods of teaching and learning, which are prevalent in both the secondary education of both countries, that they simply learn better this way than through active learning. It might therefore be worthwhile to look at cultural differences as an intervening variable between active (and passive) learning and learning outcomes.

References


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