The Effects of Different Types of Case Learning on Student Engagement

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Two types of case learning—case studies and problem-based learning—have become staples in our active learning international relations classrooms. Yet few teacher-scholars have examined whether different types of case learning yield different learning outcomes. This study examines the student engagement in response to four different types of case learning: case studies with texts designed for the case method, those using written nontraditional case materials, those incorporating documentary films as case materials, and problem-based learning approaches. I survey students in two International Political Economy classes as a way of yielding an indirect assessment of how effective or useful these different approaches are, and which types of case learning engaged students most. Results suggest that the types of case learning that engaged students’ senses in multiple ways—problem-based learning and case studies using films as texts—enhanced their perceptions of the exercises’ effectiveness. Case studies that relied on written texts alone were not rated as highly, although were still seen as extremely valuable. These results are consistent with the findings from the cognitive psychology literature that informs the active teaching and learning approach.

Keywords: xxxxxxxx, xxxxxxxx, xxxxxxxx

Case learning has become a very popular active learning approach for instructors of international relations. Research suggests that case learning methods yield particular educational benefits when compared with the more traditional “chalk and talk” (lecture/discussion) instructional model. Perhaps as a result, two types of case learning—case studies and problem-based learning—have become staples in our active learning international relations classrooms. Given what we know about how students learn, we should expect differences in student reaction to different types of case learning. Yet few teacher-scholars have examined whether different types of case learning yield different learning outcomes. This study examines the student engagement in response to four different types of case learning: case studies with texts designed for the case method, those using written nontraditional case materials, those incorporating documentary films as case materials, and problem-based learning approaches. I inquire as to which student-centered case-learning approaches engage students the most.

Active Teaching and Learning
Case learning is guided by the principles of the active teaching and learning approach. Active teaching and learning is a pedagogical approach that attempts
to move classroom instruction from traditional, lecture-oriented “instructional paradigm” to a new “learning paradigm.” It is conceived of as a holistic, student-centered approach designed to produce learning, develop critical thinking skills, and elicit discovery and the construction of knowledge. This process of discovery places students in the position of critical thinkers and generators as well as consumers of knowledge in an active, collaborative, and experiential learning environment (Dewey 1938; Barr and Tagg 1995).

Although the evidence is mixed as to whether active teaching and learning leads to greater short-term knowledge acquisition than more traditional approaches (Bonwell and Eison 1991; Albanese and Mitchell 1993; Lieux 1996; Denton, Adams, Blatt, and Lorish 2000; Dochy, Segers, Van den Bossche, and Gijbels 2003; Prince 2004; Sanson-Fisher and Lynam 2005; Krain and Shadle 2006; Powner and Allendoerfer 2008), this kind of collaborative learning involving real-world applications has been shown to promote a deeper understanding of key concepts (Dewey 1938; Kolb 1984; Coles 1985; Norman and Schmidt 1992; Krain and Lantis 2006). When students actively engage with the material, they are more likely to learn, understand, and retain that knowledge (Stice 1987; Schacter 1996; Fox and Ronkowski 1997; Jensen 1998; Brown and King 2000; Kuzma and Haney 2001; Dochy et al. 2003; Krain and Nurse 2004; Prince 2004). Increasing the types of sensory experiences that students have with the material during the learning process leads to increased long-term memory of these experiences, and enables students with different learning styles to access and retain the material (Dale 1946; Paivio 1975; Stice 1987; Clark and Paivio 1991; Schacter 1996; Fox and Ronkowski 1997; Dochy et al. 2003; Prince 2004).

Studies also consistently show that active learning approaches enhance student critical thinking and problem-solving skills, and the ability to transfer their knowledge to new, often complex and uncertain, situations (Bonwell and Eison 1991; Lieux 1996; Eyler 2000). And active learning has been shown to help students develop a sense of personal efficacy and the willingness to take risks in expressing and acting on their ideas (Lamy 2000; Krain and Nurse 2004; Cabrera and Anastasi 2008).

Moreover, active and experiential learning generates or enhances personal interest in a subject, raises the level of student excitement, and more effectively engages the students in the classroom (Lieux 1996; Brown and King 2000; Newman and Twigg 2000; Lundeberg and Yadav 2006). These techniques have also been shown to have significant impacts on student satisfaction with their overall educational experience (Albanese and Mitchell 1993; Leonard and Leonard 1995; Shellman and Turan 2006), enthusiasm for learning (Savery and Duffy 1995; Smith and Boyer 1996; Savery 1999, 2006), and even student attendance and retention rates (De Vries, Schmidt, and de Graaff 1989; Lieux 1996; Lundeberg and Yadav 2006).

Case Learning

There are numerous types of active teaching and learning approaches, including (but not limited to) structured debates, simulations, games, role-play, videoconferencing, virtual learning communities, and service learning. One of the most frequently employed approaches in international relations classrooms is what I refer to as the case learning approach (see also Angelo and Boehler 2002). The two types of case learning examined in this study, case studies and

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1For a more extensive discussion of active teaching and learning in international relations, see Lantis, Kille, and Krain (2010).

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problem-based learning, allow students to engage abstract concepts while exploring specific real-life cases. As one author notes,

authentic case-based approaches in education improve learning not only because of their relevance to the real world but because they contain ill-defined, problematic elements with competing solutions and diversity of outcome, which prompt reflection and hopefully collaboration with others. (Peile 2006:1201)

As such, case learning is particularly useful for helping students see how real-world complex problems get solved (or go unsolved), for demonstrating the connection between theory and practice, and for building critical thinking and problem-solving skills (Lamy 2000, 2007; Duch, Groh, and Allen 2001; Dochy et al. 2003; Prince 2004; Prince and Felder 2006). Indeed, they are often credited with helping prepare students for professional experience by helping them to develop the ability to understand complex phenomena, think critically, and make decisions in murky situations (Breslin and Buchanan 2007; Lamy 2007).

In case learning classes, students are presented with a case to analyze or a complex real-world problem to solve. Although they have important background knowledge about the theoretical concepts they will use or the general policy issues they will wrestle with, students are usually unfamiliar with the specific case or problem beyond the case materials that they have read or viewed before or during the class session. Most case learning is thus experiential by nature. As Angelo and Boehrer (2002) note:

In case learning, students encounter the problem before they create the structure to solve it; the method is basically inductive and experiential ... The experience is that of having the problem oneself and striving to find a way to resolve it, because the case method encourages students to see it from an action perspective rather than analyze it from a distance.

Case learning exercises are usually designed and employed in order to enhance, rather than supplant, lectures (Savery 2006; Lamy 2007). In order for it to be a successful pedagogical tool, a case study or problem-based learning exercise must be directly linked to the larger course and its educational objectives, and must be carefully interwoven into the learning process. These class sessions are opportunities for students to apply knowledge gained from lectures or texts, and to begin to actively use this knowledge to “engage in higher order thinking tasks of analysis, synthesis, and evaluation of competing arguments” (Lamy 2007:114; see also Savery 2006). They can be exercises in problem solving or in the analysis of decision making, but are also critical thinking exercises played out in student debate and discussion (Lamy 2007; Marks 2008).

Case Studies

Perhaps the most well-known and widely used active teaching and learning approach is the case study method. Case studies were developed in the 1870s to

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5Other experiential case learning methods, used occasionally in the sciences but less frequently in social science classrooms, include: inquiry-based learning, discovery learning, project-based learning, and just-in-time teaching (Prince and Felder 2007). Some have suggested that structured debates, frequent features of international relations classes, and service learning, which immerse students within a real-life case, might also be considered subsets of case learning (Lantis 1998; Krain and Nurse 2004; Lantis et al. 2010). One might also make the same argument for simulations, games, or role-play, which immerse students within hypothetical or “simulated” cases. However, the latter approaches lack the same degree of real-world authenticity, which some argue is essential to the success of case learning (Herrington, Oliver, and Reeves 2003; Lamy 2007).
educate future lawyers in both the theory and application of the law, used in the
1920s in business schools, and then refined in the 1980s to help educate future
medical professionals (Garvin 2003). Only relatively recently, since the 1990s,
has the case study method been regularly practiced in international relations
classrooms (Lantis et al. 2010).

Cases recount—as objectively and meticulously as possible—real (or realistic)
events or problems so that students experience the complexities, ambiguities,
and uncertainties confronted by the original participants in the case. As they
“inhabit” a case, students must tease out key components from the real messi-
ness of contradictory and complicated information. (Golich, Boyer, Franko, and
Lamy 2000:1)

The instructor plays the role of discussion facilitator during the in-class explo-
ration of a case study class. She or he uses questions and prompts to get stu-
dents themselves to outline the parameters of the case or problem, explore its
relevant theoretical and policy issues, and evaluate the (potential) outcomes
(Christensen, Garvin, and Sweet 1991; Holsti 1994; Lynn 1999; Golich et al.
2000; Lamy 2000; Lantis et al. 2010). The guided class discussion and debate is
driven by “a few central questions that prompt conflicting positions, perspec-
tives, or points of view” (Garvin 2003:61). This “dialectical, conversational”
approach typically starts with “helping students enter the conversation, rising to
theory and moving into application, and then moving back again in reflection”
(Breslin and Buchanan 2007:39). Student-centered reflection, via assessment and
debriefing, in which students have the opportunity to discuss their individual
and group experiences, allows instructors to connect active learning experiences
back to a larger theoretical context. Indeed, studies stress the importance of
such reflection given how experiential learning frequently occurs after rather
than during the exercise (Cooper 1998; Lantis 1998).

Many case studies are texts written or developed specifically for pedagogical
use (Christensen et al. 1991; Mingst and Mori 1997; Lynn 1999; Duch et al.
2001). These often appear as either decision-forcing or historical, retrospective
cases (Golich et al. 2000; Lamy 2000). However, case studies may also rely on
other types of “alternative texts,” including historical narratives, eye-witness
accounts or autobiographies, film or video clips, newspaper or magazine articles
or editorials, political cartoons, oral presentations, and computer or Internet-
based sources (Lantis et al. 2010). Cusimano (2000) refers to these as noncase
cases, or nontraditional cases.

Problem-Based Learning

Problem-based learning is a student-centered approach that “empowers learners to
conduct research, integrate theory and practice, and apply knowledge and skills
to develop a viable solution to a defined problem” (Savery 2006:12). Skills
developed in problem-based learning exercises include: the ability to think criti-
cally, analyze, and solve complex, real-world problems, to find, evaluate, and use
appropriate learning resources; to work cooperatively, to demonstrate effective
communication skills, and to use content knowledge and intellectual skills to
become continual learners (Burch 1995; Lieux 1996; Duch et al. 2001; Dochy
et al. 2003; Herrington et al. 2003; Prince 2004; Prince and Felder 2006).

Although each instructor may employ this technique slightly differently, prob-
lem-based learning typically proceeds as follows:

3For a discussion of the origins and development of problem-based learning, see Savery (2006).
Students … are confronted with an ill-structured open-ended real-world problem to solve, and take the lead in defining the problem precisely, figuring out what they know and what they need to determine, and how to proceed to determine it. They formulate and evaluate alternative solutions, select the best one and make a case for it, and evaluate lessons learned. When they identify the need for instruction on new material, the instructor either provides it or guides the students to obtain the required information themselves. (Prince and Felder 2007:15)

Problem-based learning is often collaborative, requiring students to interact with research materials, research group members, and eventually the class as a whole. Class sessions usually end with each group or individual sharing the results of their work with the rest of the class, followed by instructor-guided student-centered reflection (Lamy 2007).

Both case studies and problem-based learning ultimately center on a real world or realistic case, yet there are some important differences between these two types of case learning. Problem-based learning allows the instructor to extend a typical case study (the problem) to include problem-solving and group work (Burch 1995). Problem-based learning usually requires students to research and apply material previously unfamiliar to them, whereas case studies typically have students apply material that they have already engaged via text or previous classroom instruction (Burch 1995; Lamy 2007; Prince and Felder 2007). In problem-based learning, students are asked to act more like engaged problem solvers tasked with identifying the root of an ill-structured problem and finding one of many possible solutions to a complex problem, and less like case participants or analysts with more well-defined problems, contextual details, or case parameters (Burch 1995; Herrington et al. 2003; Prince and Felder 2006; Savery 2006). This allows more room for the student to help define the problem under examination and develop a solution, thus practicing real-world skill important for future global citizens (Savery 2006:16; Lamy 2007).

Arguments and Expectations

Clearly these two types of case learning—case studies and problem-based learning—should yield significant benefits in international relations classrooms. Unfortunately, as the chapter on the state of active teaching and learning in the ISA Compendium notes, "[w]hile the case literature is broad, authors only recently have begun to focus on the pedagogical value of the case approach and problem-based learning … Indeed, the literature on case studies tends to be dominated by detailed classroom-ready examples absent any evaluation" (Lantis et al. 2010). Yet given what we know about how students learn, we should expect differences in student reaction to different types of case learning.

For instance, the fact that problem-based learning empowers students to take control of the learning process, and actively engages them in both the identification of the key questions and the generation of the policy solutions suggests that this technique would be more likely to engage students than case studies. Research shows that when students are responsible for both the solution to the problem and the process by which the solution is found, their motivation to participate and to learn and their sense of ownership of their own learning process increases (Savery and Duffy 1995; Savery, 1998; Savery 1999, 2006). One might then expect that students would see lessons learned through problem solving, where their own research and engagement drive the outcome, more useful or

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For a detailed eight-step approach specific to how problem-based learning proceeds when students are divided up into teams or research groups, see Lamy (2007).
effective than those learned through case studies, where the process and possible outcomes are more defined.

This expectation is also supported by years of research in cognitive psychology and education, which finds that material learned experientially and through a combination of approaches (visual and verbal; heard, expressed, and acted upon) tap into multiple senses and emotions and create “memorable events.” These have been found to yield greater knowledge retention (Dale 1946; Paivio 1975; Stice 1987; Clark and Paivio 1991; Schacter 1996; Jensen 1998). Summarizing this extensive literature, Cusimano (2000:79) writes:

[All information is not created equal: people tend to acquire concrete, vivid, specific, image-inclusive, personal and/or emotionally stimulating information more easily than what is more abstract. Information encoded on several sensory dimensions is more accessible than information presented on fewer... Like analogies and metaphors, these more concrete and accessible materials enable students to connect new information and ideas with those they already know and understand, in ways that make the unfamiliar engaging and comprehensible.

Problem-based learning engages multiple senses, as students are asked to read and evaluate texts, hear colleagues’ counterarguments, discuss and define problems, research and report back, write, and actively participate in problem definition, research, and the decision-making process. The result is a “memorable event,” especially when juxtaposed with other less decentralized classroom approaches. Although case studies are also experiential exercises, they do not require students to cognitively engage the material in nearly as many ways as problem-based learning. And although the case study method does shift the focus of the classroom from instructor to student, this approach is less decentralized than the problem-based learning approach, as case studies give the student less control over the definition of the analytic puzzle at hand, the resources needed to understand the puzzle, and the potential solution. All of this suggests that students are likely to see lessons learned through problem-based learning exercises as more effective or useful than those learned through the case study method.

**Expectation 1:** Students will rate cases associated with problem-based learning as more effective or useful than those not associated with problem-based learning.

These same arguments also suggest that the types of texts used to prepare students to engage a case may also affect students’ evaluations of case effectiveness. In particular, they suggest that film and video may be particularly useful in creating memorable multisensory experiences that enable students to “experience” problems or events half a world away. Films are often deployed as texts in conjunction with an active teaching and learning approach in international relations classrooms for exactly those reasons (Gregg 1998; Kiasatpour 1999; Haney 2000; Kuzma and Haney 2001, 2002; Pollard 2002; Lantis et al. 2010).

If the cognitive psychology literature is correct, then multimedia texts such as films may enhance students’ understanding and retention due to their inherent multisensory approach (visual and verbal) to depicting the case or problem in question. Moreover, films provide a shared experience and a common “language” for discussion. Films can also be better at eliciting empathy in students by humanizing participants and/or making seemingly distant events or issues

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5Since film viewing is often thought of as an inherently passive and leisure-time activity, the instructor must carefully emphasize the legitimacy of the text in an academic context, and the interactive nature of this type of text, by encouraging students to approach this text critically (Cusimano 2000).
seem more “authentic” or “real.” Authentic texts make it easier for students to suspend disbelief and actively “experience” active learning exercises, and thus derive the educational benefits of experiential learning (Herrington et al. 2003). Documentary films require even less suspension of disbelief, lending them even more “authenticity.” In sum, film viewing taps into multiple senses, elicits empathy by humanizing others’ experiences and making them seem more “real,” and yields more emotional, more memorable, experiences (Haney 2000; Kuzma and Haney 2001, 2002). This suggests that students are likely to see lessons learned through film viewing as more effective or useful than those learned through written texts alone.

**Expectation 2:** Students will rate case studies associated with documentary films as texts as more effective or useful than those case studies associated with written texts alone.

**Methodology**

I surveyed students in two classes of intermediate-level International Political Economy taught in consecutive years—Spring 2008 (n = 19) and Spring 2009 (n = 23). These classes were highly similar in terms of a variety of demographic factors: ethnicity, gender, class standing, and major field of study. At the conclusion of the course, I asked students to fill out a survey about the cases we studied before distributing the overall course evaluations. All students present on that day filled out the survey. The first section of the survey listed eight questions asking students: “How effective or useful were each of the following in helping you to better understand concepts and issues in international political economy?” Respondents were prompted to rate each case using a 1–5 Likert scale (1 = not at all, 3 = moderately, 5 = extremely). Students were also instructed to answer “Not Applicable” if they were not in class for the case discussion, did not do the readings, see the film, or do the assignment associated with a particular case. The ninth question consisted of the following open-ended question: “Please comment briefly on your evaluations above. In particular, please note why you believe some of these were more effective or useful than others.”

The goal of the survey was to yield an indirect assessment of how effective or useful these different approaches are, and which types of problem-based learning engaged students most. Indirect assessment is when teacher-scholars try to measure student perceptions of that they have learned or experienced, as opposed to measuring learning outcomes directly (Angelo 1998; Walvoord and Anderson 1998). An analysis of students’ subjective assessments of the benefits of active learning exercises is both an important component of the assessment of the effectiveness of any student-centered pedagogical technique and a well-established strategy in the literature on active teaching and learning in international studies (Endersby and Webber 1995; Lieux 1996; Kaarbo and Lantis 1997; Dougherty 2003; Zeff 2003; Krain and Nurse 2004; Shellman and Turan 2006; Martin 2007).

Both iterations of the course covered the same cases, using the same texts, for the same amount of class time. Each case was preceded by readings and class discussion in previous classes about the general topic. For instance, the sessions dealing with cases involving the debate over economic statecraft were preceded by days of covering the politics and economics behind free trade and protectionist measures, and the scholarly debate over the utility of sanctions and/or constructive engagement. The students were then asked to complete case-related readings, and to come prepared to discuss the case in class.

In running case sessions, the instructor acted as the discussion facilitator during the class, using questions and prompts to get students themselves to outline the parameters of the case and how and why it played out as it did, explore its
relevant theoretical and policy issues, and evaluate the (potential) outcomes. Debates over differing interpretations about the issues at stake, choices available to decision makers, or optimal solutions were actively encouraged. The problem-based learning sessions also included student presentations of their research and their conclusions. Finally, the instructor led a reflection/debriefing at the end of the case learning class session.

The course examined eight cases in depth (Table 1). There were two problem-based learning cases that required students to write papers advocating for a particular policy choice. The first of these cases focused on the optimal US sanctions or engagement policies regarding Burma (hereafter referred to as the “Burma Sanctions” case), and required each student to write their own shorter (approximately 3–6 page) policy paper advocating for a particular approach and explaining why this approach is optimal. The second of these cases focused on choosing the most appropriate economic development policies for Nicaragua (hereafter referred to as the “Nicaragua Development” case), and required students working in groups of four or five to develop a larger (approximately 7–10 page) policy paper laying out the development plan and its rationales. Each group then presented a brief (approximately 5–8 minutes) summary of their recommendations, followed by a group discussion of the presented plans. For each of these cases, students attended country “briefings” (class sessions providing general background information about the political and economic conditions in the respective countries), read associated materials, generated a class discussion of the case issues and the various policy alternatives, wrote policy papers, and presented their findings and policy recommendations to the class.6

The class also used the case study method six times. Two of the case studies used documentary films as texts. These required students to do relevant background readings, but to also view a documentary film as a case-related text. The first of these cases focused on the effects of the global used clothing industry on Zambia after liberalization (hereafter referred to as the “Zambia/Used Clothing” case). A required text for this case study was the 54-minute documentary T-Shirt Travels, shown during one class session. The second of these case studies focused on the effects of the industry built around fishing for and exporting Nile Perch on Tanzania (hereafter referred to as the “Tanzania/Nile Perch” case).

### Table 1. Case Studies

<table>
<thead>
<tr>
<th>Case</th>
<th>Problem-based learning</th>
<th>Formal case study as text</th>
<th>Nontraditional case studies</th>
<th>Popular press article/chapter as text</th>
<th>Documentary film as text</th>
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<td>Cuba Sanctions</td>
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<td>Tanzania/Nile Perch</td>
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<td>Nike/Labor</td>
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<td>Peru/Newmont</td>
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<tr>
<td>Nicaragua Development</td>
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6 Students read written texts associated with each policy problem in the problem-based learning sessions for this class. This enabled me to separate out the effects of problem-based learning and the use of documentary films as texts. However, one could easily adopt both approaches, as Burch (1995) demonstrates.
case). A required text for this case study was the 107-minute documentary *Darwin’s Nightmare*, shown during a specially scheduled evening class session. In each of these cases, in the class immediately following the film showing the instructor guided a discussion of the political, economic, and social effects of globalization more generally, and the industry in question specifically, on the countries and the people examined in the texts.

The other four case studies relied primarily on written texts as case study materials. In these, international actors (states, international organizations, and/or multinational corporations) were faced with decisions or policy choices. These case studies required that students understand and evaluate the decisions made, and then apply the lessons learned from how the case had played out in the past to current challenges. These case studies required students to do relevant background readings, and to come prepared to delve into the cases during in-depth discussions in class, but did not require a written product, nor did they utilize visual media as texts. The first of these cases focused on whether and how to change US sanctions policies regarding Cuba (hereafter referred to as the “Cuba Sanctions” case). The second case examined the national and international responses to the East Asia Crisis in the late 1990s, and asked students to apply those lessons to the contemporary economic crisis of the late 2000s (hereafter referred to as the “Financial Crises” case). The last two case studies examined how globalization affected the responses by multinational corporations to challenges from actors opposed to their business practices. These case studies examined Nike’s adoption of a code of Corporate Social Responsibility in response to the outcry from transnational advocacy networks regarding Nike labor practices (hereafter referred to as the “Nike/Labor” case), and how and why Newmont halted gold extraction in a town in Peru in response to local opposition and publicity surrounding corruption and mismanagement of serious health hazards (hereafter referred to as the “Peru/Newmont” case).

As I am attempting to see whether using films as texts might affect student evaluations of case studies’ effectiveness and utility, I also tried to control for the other obvious difference in type of text used: formal vs. nontraditional written case studies. Three of the cases examined relied in part on more formal case study materials, written with the express purpose of being used with the case study method: Cuba Sanctions (Peterson Institute for International Economics 2008), Burma Sanctions (Tolley 2001), and Nike/Labor (Locke 2003). These might have made the associated cases appear more useful or effective to students as the readings were explicitly designed to be used in conjunction with the case study being examined, and may have appeared to have a more formalized and easy-to-follow structure. Three of the cases examined relied in part on non-traditional written case material. In each of these instances, the readings were initially written for the popular press—newspaper or magazine articles, or chapters in bestselling non-fiction books: Financial Crises (Stiglitz 2003), Zambia/Used Clothing (Packer 2002), and Peru/Newmont (Perlez and Bergman 2005). These might have made the associated cases appear more useful or effective to students as the readings were more accessible narratives written for a general interest audience.

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7 Students unable to attend the specially scheduled evening showing were able to view the film at their convenience in the library’s audiovisual lab during library hours.

8 During the Spring 2008, class students were asked to apply the lessons to a hypothetical but seemingly imminent global financial crisis. During the Spring 2009, class students were asked to apply these lessons to an all-too-real and still unfolding global financial crisis.

Results

Quantitative Data Analysis: Mean Ratings of Cases

As noted earlier, each class was extremely similar in terms of a variety of demographic factors. As it turns out, there was also no significant difference between the mean ratings that each class gave to each of the different case studies used, save one. Using independent samples difference of means t-tests, I determined that the mean scores given to each case across both years were not statistically different from one another (that is, the null hypothesis that they are the same cannot be rejected), $p > .10$. The lone exception was the case of the used clothing industry in Zambia, which the 2009 class rated significantly higher than the 2008 class ($t[39] = -2.11$, $p < .05$). Although idiosyncratic factors may have made one particular class rate a case a bit differently than the other, statistically speaking their ratings across years are remarkably similar. This gives me a high degree of confidence that I can evaluate the aggregated data of the two classes without worrying too much about class or year effects.

The descriptive statistics for the responses to the five-point Likert scale questions asking students to evaluate the effectiveness or usefulness of each case are presented in Table 2. I report them in order, from most to least effective or useful, both for each individual class year and for the entire aggregated sample (both years combined). There is a clear hierarchy in the mean ratings of each case in 2008, in 2009, and overall. The top four cases (Burma Sanctions, Zambia/Used Clothes, Tanzania/Nile Perch, Nicaragua Development) are consistently rated on average at or above 4.2 of 5.0. The mean ratings of each of the other four cases (Cuba Sanctions, Financial Crises, Nike/Labor, Peru/Newmont) are consistently at or below about 4.0 of 5.0.

Next I ran paired-sample difference of means tests comparing the student case study ratings for each possible pair of cases to see whether the mean rating for any given case is statistically different from any other case. In essence, this tests whether the variation in case ratings is likely the result of random error, as opposed to real differences in student evaluations of the cases. For these analyses, I examined the ratings given for each case study by the entire sample (the aggregated 2008 and 2009 data).

The results, presented in Table 3, show that the student ratings for the top four cases (Burma Sanctions, Zambia/Used Clothes, Tanzania/Nile Perch, Nicaragua Development) are not statistically different from one another. The null hypothesis that they each have essentially the same mean ratings as one another cannot be rejected (given that for each pair, $p > .10$). This suggests, among other things, that although the students rated the problem-based learning cases highly, whether or not the research was conducted individually or in groups did not matter as much. The ratings for the case with the single-authored policy paper (Burma Sanctions) were not significantly different from those for the case

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10 In these comparisons, I employed independent samples t-tests because the observations and groups being compared are independent of each other.

11 I do not interpret the “Not Applicable” [N/A] ratings here, despite the appearance, at first glance, that the absence of evaluative data might also tell an interesting story about how case learning affects student attendance or engagement. The apparent pattern is misleading because, in 2009, three students missed classes associated with two of the cases studies (“Nike/Labor” and “Peru/Newmont”) due to a pre-planned extracurricular trip (Model UN). If we exclude those three students, then responses in 2009 included only one student reporting “Not Applicable” [N/A] for each of two cases.

12 I used paired samples t-tests in instances where the samples being compared are mean scores assigned by members of the same group for two different questions. In these instances, the mean scores assigned for each of two cases are “paired” for each person surveyed. Observations and groups being compared are not independent of each other, making an independent samples t-test inappropriate.
that asked students to work in research groups (Nicaragua Development). In
addition, although the students rated the cases associated with the documentary
films highly, the length of the films did not seem to matter either. The mean
ratings for the 54-minute film (T-Shirt Travels, for the Zambia
⁄ Used Clothing
case) were not significantly different from those for the 107-minute film (Dar-
win’s Nightmare, for the Tanzania
⁄ Nile Perch case). Most importantly, students
rated the problem-based learning exercises and the case studies using films as
texts as roughly equally effective or useful.

Table 3 also shows that the ratings for the other four cases (Cuba Sanctions,
Financial Crises, Nike
⁄ Labor, Peru
⁄ Newmont) are not statistically different from
one another, except in one instance. The null hypothesis that they each have
essentially the same mean ratings as one another cannot be rejected, except in
the case of the Cuba Sanctions and Peru
⁄ Newmont pairing. The Cuba Sanctions
case study’s higher rating than the Peru
⁄ Newmont case study is statistically signif-
cant (t[34] = 3.032, p < .01).

Finally, Table 3 demonstrates that the mean ratings for each of the top four
cases (Burma Sanctions, Zambia/Used Clothes, Tanzania/Nile Perch, Nicaragua
Development) are significantly greater (p < .05) than the mean ratings of each
of the other four cases (Cuba Sanctions, Financial Crises, Nike
⁄ Labor,
Peru/Newmont). We can safely reject the null hypothesis that there is no differ-
ence between the top four cases and the rest. Overall, the results of the paired
sample difference of means tests in Table 3 suggest that, although the ratings
for the top four cases are statistically indistinguishable from one another, and
the ratings for the bottom four cases are statistically indistinguishable from one

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<td>3.63</td>
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Table 3. Paired Samples Difference of Means t-Tests Comparing Case Ratings (Data = 2008 and 2009 Combined)

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<td>-0.60*** (0.97)</td>
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<tr>
<td>Financial Crises</td>
<td>0.23 (0.90)</td>
<td>0.78*** (1.07)</td>
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<tr>
<td>Zambia/Used Clothes</td>
<td>-0.51*** (0.81)</td>
<td>0.06 (0.94)</td>
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<td>Tanzania/Nile Perch</td>
<td>-0.48** (0.89)</td>
<td>0.11 (0.78)</td>
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<td>Nike/Labor</td>
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<td>-0.04 (0.99)</td>
<td>0.68*** (0.97)</td>
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<tr>
<td>Peru/Newmont</td>
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<td>0.99*** (0.80)</td>
<td>0.16 (0.83)</td>
<td>0.89*** (0.99)</td>
<td>0.83*** (1.00)</td>
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<tr>
<td>Nicaragua Development</td>
<td>-0.39* (1.22)</td>
<td>0.19 (0.81)</td>
<td>-0.63*** (1.25)</td>
<td>0.09 (1.11)</td>
<td>0.08 (0.90)</td>
<td>-0.54** (1.07)</td>
<td>-0.74** (1.22)</td>
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(Notes: Mean difference in case rankings [column case–row case] shown. Average deviation from the mean difference (standard deviation) in parentheses. *p < .05, **p < .01, ***p < .001.)
another, there is a real and significant difference between the top four cases and the bottom four cases. Students find case studies that engage students via multiple sensory experiences more effective or useful than case study approaches relying primarily on written case texts; students also find problem-based learning exercises more effective or useful than case study approaches relying primarily on written case texts.

Type of written texts employed (formal case study materials vs. nontraditional written case materials) seems to matter less than whether texts or approach stimulated students’ minds or senses differently. Among the case studies that included formal case study texts, the Burma Sanctions case (problem-based learning) was rated significantly higher ($p < .01$) than either the Cuba Sanctions case or the Nike/Labor case (both case studies, and with indistinguishable ratings statistically). Among the case studies that included popular press texts, the Zambia/Used Clothes case (with documentary film as text) was rated significantly higher ($p < .01$) than either the Financial Crises case or the Peru/Newmont case (both without documentary film as text, and with indistinguishable ratings statistically).

**Qualitative Data Analysis: Responses to Open-Ended Question**

Recall that students were also asked the following open-ended question at the end of the survey: “Please comment briefly on your evaluations above. In particular, please note why you believe some of these were more effective or useful than others.” Responses suggest that students in both classes found all of the attempts at case learning at least somewhat effective or useful. Most often, students noted that all of the cases helped them to “better understand the broader ideas and theories” by placing abstract ideas in a more specific, tangible, real-life context. Some went further, suggesting that the case learning helped them to not just understand the specific cases and concepts better, but also more generally build conceptual skills such as the ability to “apply theoretical concepts to real-world situations and examine their effectiveness/validity.”

However, when distinguishing between the different cases, students’ answers shed some additional light on the question of why students preferred the cases studies associated with films and the problem-based learning exercises over either traditional or nontraditional case studies relying primarily on written texts. Contrary to what some critics of the use of films in courses have argued, students did not necessarily like the films more, or see them as more enjoyable assignments than the other texts for the course. Indeed, the two films used here were by no means easy to watch, or by any means enjoyable, as they both depicted harsh realities of global poverty and tied them directly to the global economy (and by extension, its participants, including the students viewing the films). For instance, echoing a surprisingly frequent response, one student wrote: “*Darwin’s Nightmare* yielded thought-provoking discussions, but I didn’t especially like the film.” Rather, students rated the cases associated with documentary films as highly valuable because of they “put human face on problem” and made it easier to relate to the issues by graphically depicting the world of the participants and the challenges they face as they experience it. Students felt that seeing and hearing from those who are affected by the policy choices made the issues involved in the case seem more real to them, and thus invested them more in the case. This explanation confirms what we know about the

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13This and subsequent quotes in the **Qualitative Data Analysis** section are direct quotations from student responses to the open-ended survey question.
importance of students' perceptions of the authenticity of the case in explaining its pedagogical utility (Herrington et al. 2003).

Students rated problem-based learning cases as highly valuable because of the way in which the problems forced them to think about issues raised in the course in great depth, marry theory and practice explicitly in a real-world setting, and to do so by applying their critical thinking skills to complex issues. Numerous students commented that these were the cases from which they learned the most, and the ones they felt most invested in, in the course. Students also noted that the research, deliberation, and writing process associated with the policy papers was useful to enhancing their understanding of the issue, as it forced them to rethink their positions, and apply critical thinking explicitly. Surprisingly, although students were not thrilled with the fact that their grade was dependent upon other students’ efforts in the case involving research groups (Nicaragua Development case), many noted that working with their peers enhanced their understanding of the issues, and helped them workshop their ideas before committing them to paper (and to words during the class discussion of the case). My observation of the class sessions confirms that the problem-solving process, independent research, and paper-writing enhanced participation as well—students felt much more confident in participating during case study sessions for which they had already thought through, researched, and written down their ideas.

Student comments also identified a few other factors that may have played some role in their overall ratings of the effectiveness and usefulness of the eight case studies. One student suggested that the accessibility of writing in the class readings was most important, although the ratings given to the cases in which popular press texts were used suggests otherwise. Indeed, to paraphrase another student’s comments, sometimes the class discussions were useful, lucid, and well articulated, even when the readings were not. Yet another student felt that the depth of the class discussion for certain case studies enhanced their effectiveness, whereas others elicited less probing in-class discussion. Perhaps not surprisingly, the cases identified by that student as most effective were the case studies associated with the films and the problem-based learning exercises. Perhaps the depth of class discussion was the key factor. Perhaps (and I believe more likely) the level of engagement of the students with the material as a result of either experiencing multimedia depictions of cases or engaging the problems in multiple ways led to a richer and deeper in-class discussion of the case material.

**Conclusion**

This study explored student reactions to four different types of case learning: case studies with texts designed for the case method, those using written nontraditional case materials, those incorporating documentary films as case materials, and problem-based learning approaches. Consistent with the cognitive psychology findings that underlie much of the active teaching and learning literature, both types of case learning that engage students’ senses in multiple ways—problem-based learning and case studies using films as texts—enhanced their perceptions of the exercises’ effectiveness. Students found problem-based learning exercises more effective or useful than case study approaches that relied primarily on written case texts. Problem-based learning was considered highly valuable because of the direct application of theory to practice, the degree of immersion into the case, and the degree to which students felt invested in the case. However, students found problem-based learning to be equally effective as case study approaches that employed films as texts. These case studies that engaged them via multimedia yielded multiple sensory experiences that were perceived as more
effective or useful than case study approaches that relied primarily on written
case texts. Films made the cases more “real” and the participants more
“human,” and helped students experience the case more realistically, through
the eyes of the participants. Case studies that relied on written texts (whether
traditional or nontraditional) were not rated as highly, although were still seen
as extremely valuable. Finally, the type of written text employed (formal case
study materials vs. nontraditional written case materials) mattered less than
whether texts or approach yielded a multisensory, experiential learning opportu-
nity for the students.

These are interesting findings, suggesting that both problem-based learning
exercises and the careful use of documentary films as texts in case studies can
have similar effects on student engagement, and potentially on learning out-
comes. Few studies prior to this one had compared different types of case learn-
ing approaches, nor had they explicitly attempted to quantify student assessment
of these exercises’ utility. As such, this study can be a useful step in our attempt
to better understand whether and how case learning can yield knowledge gains
or other positive outcomes.

However, this study is but a first step in this direction. Indeed, some new ques-
tions may have arisen as a result of this research. For instance, were the films in
this study more effective or useful to students because they are documentaries,
and thus seen as more authentic, or because they are films? A study that exam-
ined student reactions to different kinds of films would be helpful here. Simi-
larly, do different kinds of problem-based learning exercises yield different
results? This study included both single-student research and group research,
and found no significant difference in student reaction. Perhaps a more compre-
hensive study varying other aspects of the exercises might be in order.

Additionally, because of collinearity issues, I am unable to make claims as to
exactly why the problem-based learning cases fared so well. Only the problem-
based learning exercises in this study required students to develop papers or pre-
sentations. As a result, it is impossible for this study to determine whether it was
the combination of the problem-solving process, independent research, and
paper-writing or any one of these individual elements in the problem-based
learning approach that was responsible for the perception of greater effective-
ness or utility of these cases. A similar study that required student papers for
both problem-based learning exercises and other types of case studies would go
a long way toward helping to clarify this.

More broadly, although this study compared student assessment of different
kinds of case learning, it did not compare them to more traditional classroom
(lecture/discussion, or “chalk and talk”) approaches. No claims are made here
as to how case learning might fare relative to these other approaches. Indeed,
I was careful to note earlier that much of the literature sees case learning as a
way to supplement and build off of other classroom approaches. Yet one
wonders whether courses that include case learning yield substantively different
learning outcomes. This seems to be an empirical question ripe for future
research.

Finally, this study began assessing the comparative effectiveness and utility of
different types of case learning by assessing them indirectly—via student percep-
tions. At minimum, we now know that students see their effects as being substan-
tively different, and for reasons consistent with the arguments that underlie the
active teaching and learning approach. Although this is a valid and important
step, it is clearly insufficient. Future studies should also attempt to examine the
utility and effectiveness of these approaches directly—by examining the learning
outcomes themselves. Only then will we have a more complete understanding of
how case learning, a student-centered pedagogical approach, affects those very
students that we aim to empower and enlighten.
References


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