Teaching Students to “Do” Public Choice in an Undergraduate Public Sector Course

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Abstract

This paper discusses one approach to using writing assignments in an undergraduate public economics to get students actively involved in doing public choice. Our goal is to provide an overview of the course and its writing assignments with an emphasis on how the scaffolding of assignments helps contribute to the development of interesting and publishable ideas in public choice. A course in public economics provides a good opportunity for an instructor to develop student interest in applied public choice.

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Introduction

Despite numerous calls from economic educators to increase the use of active learning in the classroom in order to improve teaching effectiveness, the primary method of instruction within principles of economics courses remains lecture based (Becker and Watts, 2001; Watts and Becker, 2010). Evidence from three national survey waves (1995, 2000, and 2005) shows that economics professors rely more heavily on traditional “chalk and talk” style instruction compared to professors in other disciplines (Watts and Becker, 2010). When combined with the finding that students are unable to apply economic concepts taught in principles courses several years later (Allgood et al., 2004), this has led economic educators to explore different pedagogical approaches that emphasize active learning in the hope of stimulating deep learning. For example, one common approach has been to suggest ways to use popular culture such as music (Hall and Lawson, 2008; Lawson et al., 2008), television (Hall, 2005; Gillis and Hall, 2010), and movies (Mateer and Stephenson, 2011; Deyo and Podemska-Mikluch, Forthcoming) to get students to actively apply economics to the situations described or observed within the popular culture.

The benefits from active learning are well documented. The use of active learning in the economics classroom forces students to achieve a deeper level of understanding of economic concepts, requiring them to apply the economic way of thinking to real-world problems (Salemi, 2002). Active learning also requires students to communicate their ideas and arguments with other students, facilitating feedback on both positive and negative aspects of arguments (Salemi, 2002). This feedback allows for correction of misconceptions about the course concepts and in
turn, continuance of understanding of the material (Salemi, 2002). Feedback is also beneficial because it facilitates classroom interaction with other students, forcing them to realize the weaknesses in their arguments and challenge the weaknesses in others (Salemi, 2002). Additionally, communication with other students during active learning exercises allows students to experience different problem solving approaches than their own (Salemi, 2002; Chamlee-Wright and Hall, 2014).

Another benefit from active learning is that it allows for a variety in teaching styles that are otherwise unexplored via the chalk and talk method of lecture. Alternating between lecture and active learning exercises allows professors to help more students than just lecturing (Salemi, 2002). Active learning may also improve student attitudes towards learning and may create some accountability of students for understanding the knowledge presented in the classroom so that they can effectively communicate with classmates (Salemi, 2002). Also, active learning allows students to discover the relevance of economics in relation to real-world issues for themselves, rather than simply though lectures by the professor (Gillis and Hall, 2010).

The purpose of this article is to again encourage a movement away from the chalk and talk standard and towards active learning within economics by describing how one might employ writing to engage students in an upper-level public sector economics course with a substantial public choice component. Active-learning based courses in the field of public choice hold special importance given that this field overlaps with the daily lives of all citizens since everyone who votes will be engaged in the economic analysis of politics at some point in their lives (Klein, 2001). Instruction that moves towards students engaging in public choice research, rather than simply being taught the concepts, is important for furthering economic thinking, producing better
students in all disciplines, and promoting deep learning of economic principles that can later be applied to real-world problems.

Internalizing the benefits of active learning is especially important for public economics courses given that the concepts relate to the daily lives of all citizens, especially those that continue onto careers in public policy, economics, the financial sector, etc. Over time, as more students realize the importance of public choice analysis, in the future more citizens will use these concepts to analyze issues that affect their everyday lives. It is important to create a cycle of consistent application of the economic way of thinking to all areas of life so that these concepts will not just be something taught in an undergraduate economics course but instead are used by students to better understand the world around them.

Another goal of improvement in teaching of public choice analysis is to encourage students to contribute to the public choice literature, especially if they are considering graduate school. Research suggests that involving undergraduate students in research helps the students understand how the econometric techniques taught in class apply to real-world analysis of issues (Ehrenberg, 2005). Experience in empirical research during the undergraduate period promotes the use of the economic way of thinking and often introduces students to policy analysis of both economic and non-economic issues. Additionally, allowing students to try research, allows them to decide whether they are interested in graduate school (Ehrenberg, 2005). This research also promotes a closer mentor relationship with undergraduate students, which often serves as the catalyst for interest in graduate school (Ehrenberg, 2005). In fact, many Ph.D. economists decided to go to graduate school as a result of a suggestion by a mentor during their undergraduate career (Ehrenberg, 2005). By allowing students to ‘do’ public choice, we can
allow them to decide for themselves whether research is something they would like to pursue as a career through graduate school, a job at a think tank, or a public policy career.

The benefits from involving students in public choice analysis reach beyond those realized by the public choice field. Active learning, especially writing, is beneficial for all students regardless of what type of degree or career they pursue (McElroy, 1997; Simpson and Caroll, 1999; Green, Bean, and Peterson, 2013). Research on writing in economics shows that writing assignments help improve students’ understanding of concepts due to the argumentative nature of writing (Greenlaw, 2003). In order to complete a writing assignment in economics, students are required to test different arguments that have already been presented in the literature and form their own opinion using economic concepts. By practicing different types of argumentative styles, students also learn how to recognize weaknesses in other economic arguments, both within and outside the classroom (Cohen and Spencer, 1993; McElroy, 2007; Greenlaw, 2003; Smith, Broughton, and Copley, 2005). Additionally, writing gives students a better understanding of how to make a well-constructed economic argument (Cohen and Spencer, 1993; McElroy, 1997; Smith et al., 2005). Analysis and evaluation of other arguments, allows students to form a deeper understanding of the economic concepts presented in those arguments.

The remainder of the paper proceeds as follows. Section 2 discusses the institutional setting and the syllabus of the public economics course described in the remainder of the paper. The third section discusses the approach to writing a term paper employed in the class and how the “scaffolding” of a writing assignment lets the professor provide students with individualized attention while simultaneously allowing students to slowly acquire the skills necessary to produce a good piece of scholarship. The fourth section concludes.
2 Institutional Setting and Syllabus

This paper is based on one of the author’s experiences teaching five sections of public sector economics at Beloit College, a residential liberal arts college in Wisconsin. At Beloit, public sector economics is one of three senior-level electives and it is only offered in the spring semester. While it is possible for a very advanced junior to enroll in the course, the structure of Beloit’s economics major, combined with other elements of Beloit’s curriculum, made it so that nearly every student enrolled in the course was a senior economics major. The primarily factor that restricted the course to advanced economics majors was the requirement that all students have a course in quantitative methods in order to enroll in the course. This quantitative methods course, in addition to being known as one of the most difficult courses at Beloit College, was also a writing course where students had to write up “client reports” every week. Students who successfully passed quantitative methods therefore not only knew how to do basic regression analysis but how to describe and interpret their results. This background is important as the empirical writing assignment described in this paper requires a background in basic econometrics in order to be effectively employed during a one semester course.¹ The typical class size was between eight and twenty students.

Public economics is a big and broad field and it can be difficult to conceptualize what should be covered in a fifteen-week undergraduate course. Clearly the course cannot cover all of the topics that fall under the heading of public economics. Thus it is necessary when designing the course to think about what the goals of the course are and to make those goals concrete in the

¹ In addition to quantitative methods, most students enrolled in the course were simultaneously taking Econometrics where they would learn more advanced econometric techniques such as time-series analysis.
sylabus. This has the benefit of setting clear expectations for students from day one (Chamlee-Wright and Hall, 2014).

The syllabus should clearly identify the goal of the course to be active learning. The following is an example from the public sector economics course at Beloit.

“This course focuses on the way in which individual preferences are translated into public sector policies through the political process. I have a couple of objectives for this course. One goal is to provide you with an overview of the field of public sector economics through class lectures and the reading of seminal articles. This will provide you with a general framework for understanding non-market decision making, including the distinction between normative public sector economics and positive public sector economics.

In addition to the reading and discussion of seminal ideas in public economics, you will be exposed to the ongoing conversation in the field of public economics through the reading of recent research building on these seminal articles. By seeing how current research builds off these core ideas, over the course of the semester you will become familiar enough with field that you can contribute to the conversation. You will work on effectively organizing and developing an original idea in public economics and presenting it in writing and in person.”

Notice that this excerpt explains the two goals of the course. The first is to provide students with the skills to approach decision making through an economic lens. This goal emphasizes the importance of students using the concepts taught in class to evaluate problems faced outside of the course. The second goal is for students to contribute to the field of public economics. By requiring students to contribute to the field as part of the course, the instructor requires students to not only apply the economic framework of thinking to a current issue within the literature, but also to evaluate and dissect other arguments present within the literature using this economic approach. Both of these goals require the act of ‘doing’ economics, rather than just learning economics as presented through lectures.
In the public sector economics course at Beloit College rather than assigning a textbook such as Gruber (2009) or Holcombe (2005) to guide the course, readings were chosen to show how these ideas have developed over time and how individuals have taken seminal ideas in economics and added to the literature. An excerpt from Pigou (1920) is followed by Coase (1960). An excerpt from Mill (1848) on lighthouses followed by Coase (1974). Through carefully selected readings students can see how public economics is a conversation that occurs through books and journal articles. Unlike a course focused solely on public finance, a course in public sector economics gives students the opportunity to see how normative public finance can engender positive political choice insights in addition to giving a standard by which to evaluate the real world.²

Structuring the reading list in this way also can show students how to develop ideas for research papers by showing to them how other papers ideas seem obvious ex post. While paper ideas can come from anywhere, in our experience they are most likely to come from a couple of sources. One source of paper ideas is empirical puzzles or situations in the real world. Showing students puzzles and then how the resulting literature has tried to provide an answer can be helpful in getting students to develop interesting research ideas. For example, in public sector economics at Beloit College students were presented with data showing the growth of government as a percentage of GDP since the founding of the United States. This was followed by reading Chapter 1 of Higgs (1987) and then papers by Husted (1997), Lott and Kenny (1998), and Holcombe (1999). Another example of an empirical puzzle is Mikesell (1987) who tries to explain why so few members of Congress avail themselves of the franking privilege.³ The world is filled with empirical puzzles that fall into the domain of public economics that are ripe for potential use by undergraduate students in a term paper.

Pairing important articles with secondary literature inspired by those articles is another way to inspire paper ideas, as well as to show students the importance of reading papers critically. A good example of a well published paper that was inspired by closely reading a classic paper is Wagner and Sobel (2004). In that paper, the authors empirically test a hypothesis raised by Tullock’s (1971) classic paper on the charity of the uncharitable. Similarly, students can be introduced to a workhorse model such as the empirical congressional dominance model

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² Full syllabus not included due to space considerations but available from the authors upon request.
³ This paper inspired a student paper, which eventually became Hall et al. (2012).
employed in papers like Garrett and Sobel (2003), Young et al. (2001), or Beaulier et al. (2011). By showing how the model can help explain the role that political factors might play in FEMA disaster payments, IRS audits, or military base closures, papers like these demonstrate to students how public sector economists might explain the allocation of resources through the political process and start them down the path towards applying the model to a topic they are interested in analyzing further.

By including papers from a variety of journals and at different levels of contribution, students can see how they might be able to contribute to the literature. Reading papers by Kenneth Arrow, James Buchanan, or Gordon Tullock that were published in the *Journal of Political Economy* or *Quarterly Journal of Economics* can be intimidating. If those papers, however, are followed up with a more modest paper, the juxtaposition can create a bridge for students. In practice, this often works best when including an example from the instructors own research where applicable. For example, Tullock’s (1967) seminal work on rent-seeking has been followed by Sobel and Garrett’s (2002) empirical attempt to measure rent-seeking in state capitols and the update by Hall and Ross (2009). Other examples of this sort are available on the full reading list, which is available upon request.

3 Writing Assignments and Scaffolding

The use of writing assignments to enforce active learning is fundamental to the construction of an undergraduate public sector course. One approach to writing assignments within the course is through the use of scaffolding, which is a step-by step process that gives the student enough guidance until the process is clear, at which point the scaffolding can be removed. Previous economic education research on scaffolding finds that the use of scaffolding throughout courses in an undergraduate economics program gives students the tools of economic analysis necessary to empirically analyze research questions on their own (Green et al., 2013). Additionally, the
skills developed throughout these writing assignments are helpful in all career trajectories, not just economics (McElroy, 1997; Simpson and Caroll, 1999, Green et al., 2013).

Table 1: Writing Assignments

<table>
<thead>
<tr>
<th>Item</th>
<th>Words</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book Review</td>
<td>800-1000</td>
<td>75</td>
</tr>
<tr>
<td>Book Review Revision</td>
<td>800-1000</td>
<td>25</td>
</tr>
<tr>
<td>“Quickfire Challenge”</td>
<td>100</td>
<td>10</td>
</tr>
<tr>
<td>Short Idea Paper</td>
<td>1500-2000</td>
<td>75</td>
</tr>
<tr>
<td>First Full Draft</td>
<td>4000-6000</td>
<td>75</td>
</tr>
<tr>
<td>Revised Final Paper</td>
<td>4000-6000</td>
<td>40</td>
</tr>
</tbody>
</table>

Table 1 lays out the assignments for one possible approach to scaffolding writing assignments throughout the semester. The first assignment is a book review. Although most economics journals no longer publish book reviews, the process of reading and reviewing a book gives students an overview of a topic in public economics for which they might be interested. Reading a well-written book on a topic can be like doing a thorough review of the literature on a topic as well as providing possible inspiration for the final project. Assigned at the beginning of the term, they are also helpful in getting students to write early in the semester before they have learned much public economics. Here is an example of the assignment provided to the students:

Both normative and positive public economics can be applied to just about every public policy issue. For an overview of how the material in this course can be used to better understand and critique the ongoing policy debate for a variety of public policy issues, read one of the following books and write a 1000 to 1200 word summary and critique. Your grade will be determined by the clarity of your thinking as well as the quality of your writing, including spelling, grammar, and style. It is your job to obtain your book by purchasing it or getting it through the school library.


First, choose a book that interests you and obtain it through the bookstore, Amazon.com, or the library. Please do so early because I will not accept late reviews because you “had
trouble getting the book.” Second, read some examples of academic book reviews of this type that I have provided on the course webpage to get a sense of what I’m looking for in the review. Feel free to ask me any questions you might have about the assignment, but basically I’m looking for a well-written summary and critique (you should have an opinion of the book, pro or con).

Note that the book review assignment begins by giving students a well-defined list of possible books to use. This is done for two reasons. First, it heads-off the inevitable conversations with will occur with students about what is and what is not public economics should students be allowed to choose any public economics book. Second, by changing the books every semester to more recently published books the chance of students finding reviews to copy from is minimized. Consideration was also given to providing a wide variety of possible topics to satisfy diverse student interests. (This has the added advantage of making grading easier). It is not necessary for the faculty member to have read each of the books in question before assigning the review – in fact it can often help the grading to put yourself in the shoes of a reader who wants more information about the book in question.

After choosing a book, students read the book on their own, use the tools of economic analysis they already possess to identify the strengths and weaknesses of the arguments, and summarize their thoughts on the book in a first draft. By providing students with a general framework to work within (book recommendations, instructions to critique and summarize, etc.), the assignment allows students to begin to read critically and form their own opinions about the quality of scholarly work. After receiving their first draft, comments are provided to the students on the form and substance of their reviews, and they are required to incorporate those comments on a revised draft, with the subsequent revision only be graded with respect to how well it
incorporates instructor feedback.\textsuperscript{4} At the end of the revision process some of the reviews are quite good and several Beloit College students over the past several semesters have been able to publish their reviews in academic and policy journals.\textsuperscript{5}

From the book review, students move onto the “Quickfire Challenge.” Taken from the show “Top Chef,” the idea is to come up with an interesting (or at least palatable) paper topic in a short time period. When students arrive in class on a day shortly after the book review assignment is finished, they are surprised with a presentation on public economics journals, EconLit, and data sources in public economics is provided. They are then given 24 hours to come up with a paper title, abstract, and three references. As help in developing a topic, they are given a couple of prompts. First, they are provided with a list of interesting data points or empirical puzzles. Here are but two examples that of the more than dozen that are typically provided. Given the harsh penalties for non-compliance with selective service requirements, why do several states have compliance rates well below 100\%?\textsuperscript{6} Why do some states allow medical marijuana and others do not?\textsuperscript{7} The students who latch onto one of these ideas are then encouraged to research the topic through EconLit to find three relevant papers on the topic. The second prompt students are provided is to read issues of the journal \textit{Public Choice} from the 1980s. The students are told that then editor Gordon Tullock had an eye for interesting papers, which is why the journal’s ranking continually rose during his tenure. However, empirical articles from that period were limited due to data availability and/or computing power. Students are encouraged to see if others have improved upon those papers and, if not, how they might do so.

\textsuperscript{4} Revision is an important part of the writing process as it forces students to respond to written criticism. In the absence of a required revision, very few students will reflect on comments on their writing provided by instructors.

\textsuperscript{5} See, for example, Slusher (2012), Cohen and Hall (2012), VanMetre and Hall (2010), and Nattinger (2011).

\textsuperscript{6} This prompt led to Hall and Hawkinson (2014).

\textsuperscript{7} This prompt led to Hall and Schiefelbein (2011), which then led to Malivert and Hall (2013).
Starting with these two prompts, students are required to return to the instructor via email a paper title and 100 word abstract along with three references within 24 hours. This “quickfire challenge” forces students to quickly grab onto an idea and see if it is at all interesting and workable, rather than vaguely mulling around an idea in the back of their mind for most of the semester. Again, this is just the beginning of a multistep process that guides students through the process of developing a testable research idea in public economics. Evidence shows that the use of a multistep process of this type, which helps students move from well-defined tasks to the analysis of a complex real-world problem, is beneficial in teaching students to use the economic concepts taught in class as a method of thinking (Green et al., 2013).

Once students determine which topic they would like to research, they are required to submit a full paper towards the end of the semester. This paper is also broken down into steps, to ensure scaffolding takes place. The first step asks students to submit a title and an abstract. This requires students to concisely describe their proposed research in abstract format before embarking on the research fully. This initial abstract requirement forces the student to clearly define their research question before delving into research itself, which benefits the student by narrowly focusing the topic from early on.

The second step in this process requires students to provide a proposed layout of their paper in fewer than five pages. This layout includes an introduction, a literature review, a description of the data, and summary statistics. Moving from the abstract to the layout shows the progression away from a well-defined task. Additionally, this progression into research allows students to “try ideas on” before spending a semester or longer working on bad ideas or research they are uninterested in. The introduction and literature review require students not only to motivate their research questions but also to confirm that their approaches are unique from
previous research. By requiring motivation early on through the introduction, students are forced to explain why other scholars should care about their proposed research. If a student cannot motivate within their introduction why their research matters, then this forces them to reevaluate their research question and potentially search for a better topic. The literature review is equally important as the process allows students to avoid duplicating research questions that have already been pursued. Once students determine that their research can be motivated and is unique, the next step, data description, requires them to check whether data are available to test their hypotheses. Again, this is another step within this multi-step process that requires students to ensure that their research is feasible while still in early stages of the work. An additional advantage of this short paper is it gives the instructor an additional opportunity to provide feedback to students to keep them on the right track.

Next, students are asked to complete a first full draft, filling in the remaining sections of the paper. After the first full draft has been submitted, the professor reviews all drafts and issues referee reports to all students. These reports give the students comments on where improvements should be made for the final draft. Then a final draft incorporating the comments is due at the end of the semester. The paper assignment uses scaffolding and moves from well-defined tasks into open-ended tasks throughout the semester, allowing students to gradually learn how to apply economic concepts and improve writing.

4 Concluding Thoughts

Research in economic education emphasizes the importance of active learning yet chalk and talk style lectures remain the primary method of instruction for most principles of economics courses
(Watts and Becker, 2010). This paper presents an active learning based approach to an undergraduate public sector economics course that emphasizes the use of scaffolding and writing to encourage students to ‘do’ economics. By employing several multistep assignments throughout the semester, the professor allows students to learn conduct economic research by moving from initially well-defined narrow tasks, to open-ended writing for final drafts by the end of the semester.

Evidence from this analysis suggests that a course of this type encourages students to pursue economic or policy related careers post-graduation as well as assist them in graduate careers outside of economics or public policy. Students from this course have gone on to work for economic consulting firms doing cost-benefit analysis, state-based think tanks doing budgetary policy, doctoral study in health care policy, economics, and international relations, and law school. This provides support for Ehrenberg’s (2005) argument that getting students involved in research may increase the likelihood of entrance into an economics related field or graduate school. This may be because learning to do research while an undergraduate sparks an interest in continued research, either through graduate school or in future careers, that otherwise would not be present. Additionally, understanding how to pursue research questions and complete valuable, interesting research is of upmost importance for acceptance into graduate school or for obtaining economics-related employment after college.

Ultimately, however, the types of writing and the process of scaffolding should help students become better writers no matter what their ultimate career. Many careers beyond economics and academia require refined writing and research skills and this active learning and scaffolding approach ensures that all students in the classroom are benefitting from ‘doing’ research regardless of their career goals.
References


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Are our public schools in a state of crisis? Learn about the 10 biggest problems with public schools today, both from the perspective of the administrators and the teachers. Yet, most teachers agree that they cannot effectively teach every student in a classroom, if the class size exceeds about 30. Their statements are backed up by research. Studies show that students who do not get enough food or sleep are less likely to perform at their full academic potential. Schools know these truths first-hand, and despite efforts to provide students with basic essentials, teachers, administrators and lawmakers know there is simply not enough to go around. Family Factors. Family factors also play a role in a teacher’s ability to teach students.