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Argument Construction, Argument Evaluation, And Decision-Making: A Content Analysis Of Argumentation And Debate Textbooks

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ARGUMENT CONSTRUCTION, ARGUMENT EVALUATION, AND DECISION-MAKING: A CONTENT ANALYSIS OF ARGUMENTATION AND DEBATE TEXTBOOKS

by

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DEDICATION

Lots of folks say students should make their own choices -- and that is true -- but that does not mean teachers, coaches and mentors should let students make those choices without suggesting options or providing guidance. If insightful, caring teachers did not occasionally push students in directions they had not originally planned on, those students would miss out on opportunities to change their lives—and often the lives of others as well—for the better.

I have been the beneficiary of this kind of gentle push at two key times during my education and, as a result, have found a very fulfilling path and have been able to, in turn, positively influence the lives of some of my students.

So, on behalf of every student who has ever thanked me or ever will thank me, I would like to thank the following two people and dedicate this effort to them.

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Second, and most importantly, to Bobbie Ingalls, who encouraged me to join the debate team, despite my (at the time) only lukewarm interest. Nearly every worthwhile thing I have done in the last 25 years can be traced back to that little push.

Thank you.

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People often make fun of the tenuous causal chains sometimes presented in competitive policy debates, but the more I have studied it, the more I think that a lot of real-world outcomes—big and small—are based on an accumulation of lots of small and tenuous connections, every single one of which is vitally important. Some of the following folks had more influence on me than others, but a good number of them gave little nudges that resulted in little decisions that cumulated in bigger decisions and massive changes in my life. I really think that if any one of these folks hadn't been there, this dissertation either would not exist or would be significantly weakened.

My family has had an enormous impact on this project. My brother Ian has set an example for me and has served as my big brother the last several years (even though I am the older one). He and Karey, my sister-in-law, have been encouraging me to write more for years. Mom and Dad—where to start? I cannot even imagine what I would be like without their love and encouragement. They have been role models, have encouraged me to be open-minded (though they didn't entirely succeed until I got into debate), and have instilled in me the importance of service. They have supported me with their constant encouragement and they have supported me financially. I point-blank guarantee that I could not have remained in the Ph.D. program for the last two years without their help, nor could I have afforded to conduct a study this extensive.

I have been very fortunate over the years to have benefited from some truly outstanding coaching, which has helped my academic development even more than my competitive success. Sammye Wheeler, my eighth grade TAG teacher gets an honorable mention for being the first person to actually get me into a debate (though Bernard and I didn't take it seriously enough for it to have the impact that it should have). Bobbie Ingalls, my tenth grade English teacher and

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Thanks to the debaters at Mount Vernon, Langley, Thomas Jefferson, George Mason, John Carroll, and Wayne State University. They are the reason I do this stuff, period. There are about 30 of these students I would like to highlight, but I will have to settle for three. It is hard to believe Ryan Galloway and Gordon Stables were ever my students, especially given that they have both had their doctorates and have been directing their own successful programs for years now. I hope I was useful to them at some point, because they have certainly served as models for me, and have given me help and advice many, many times over the last few years. I also must call attention to Celina Corn, probably the debater I am most proud of, for completely owning me in an argument about whether or not I should quit coaching. If it had not been for her, I might have gotten out of the activity in 1994.

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Star Muir's undergraduate class in research methods both kindled my interest in research to begin with and taught me a lot about research design. Of course, I learned still more about research design as Star's teaching assistant helping dozens of students with their own research projects. Terry Kinney deserves credit for his well-taught behavioral research methods class. I learned more about content analysis from one lab in his class than I did from the entire course I took on the subject the following year. And, in my first semester at Wayne State, Laura Winn talked me out of a literature review on argumentativeness and into a literature review on debate and critical thinking which has subsequently proved to be the most useful paper I have ever written for a class. It has served as the starting point for several other papers, both for class and for conferences, as well as a vital part of my comprehensive exams, prospectus, and this dissertation.

Brent Brossmann, my colleague, director, and friend at John Carroll University gave me new perspectives and helped me become a better teacher. Brent recently wrote a letter of recommendation pointing out how hard I worked on improving my teaching. What he left out was that I accomplished most of that improvement by observing him in the classroom, modeling him, and talking to him about teaching strategies. Additionally, the reading packet Brent put together for his own argumentation and debate classes would outscore any of the 73 textbooks in this study on decision-making elements, so students taking CO 245 at JCU should consider themselves fortunate on multiple levels.

The Wayne State University Communication Department helped me in many ways including providing an assistantship, excellent facilities, and dissertation support funds through the Ph.D. Enhancement Program which allowed me to take what would have been just a pilot project and turn it into a comprehensive study. The Wayne State University Graduate School supported me with a summer dissertation fellowship that facilitated nearly all of the testing and coding that went into the study and provided me with dissertation support funds which allowed me to include some sources I might not have been able to otherwise.

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comprehensive exam and prospectus. Ron Stevenson is an excellent and adaptable instructor, and a surprising amount of material in this dissertation was derived from assignments in his political campaigns and social movements classes, in large part because he helped me craft assignments that not only met his criteria, but also set up, in one way or another, specific facets of this project. Sandy Pensoneau-Conway's critical pedagogy class marked a turning point in my research focus. This dissertation began as a paper in her class about having students judge debates to improve their critical thinking skills. If it was not for her patience in letting me develop that paper, I am really not sure where I would be right now. Finally, thanks to Aaron Retish for stepping in so quickly when Dr. Aronson was unable to continue. He had very little time to get up to speed before the defense, but nevertheless provided insightful and thought-provoking questions.

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argument, content is paramount. Noriaki Tajima reminded me about some of the online resources that are available, helped me with organizing citations, and spent a lot of time talking to me about debate pedagogy. I know he will soon make an excellent addition to the global community of argumentation and debate instructors.

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INTRODUCTION

> Consider the issues of depletion of the ozone layer, world hunger, overpopulation, and AIDS. Without a grasp of the elements, and internal relationships of the elements, in each of dozens of interrelating systems from specific product emissions to social incentives, from effective utilization of the media to human learning, we are adrift in a stormy sea of information. Without a grasp of the of political realities, economic pressures, scientific data on the physical environment and its changes—all of which are simultaneously changing as well—we stand no chance of making any significant positive impact on the deterioration of the quality of life for all who share the planet.
>
> These two characteristics, then, accelerating change and increasing complexity—with their incessant demand for a new capacity to adapt, for the now rare ability to think effectively through new problems and situations in new ways—sound the death knell for traditional methods of learning how to survive in the world in which we live. (Paul & Willsen, 1995, p. 3)

Richard Paul and Jane Willsen concisely and powerfully explain the challenge facing educators: We need to produce students who can deal with exceedingly complex and interrelated problems and make decisions upon which our safety and well-being may rest. Dealing with such complex and important issues may require more advanced critical thinking and decision-making ability than most people have and more than our students currently develop. How can we better encourage our students to develop advanced decision-making abilities?

One potential answer is argumentation and debate, both as a class and as an extracurricular activity. There is extensive evidence that argumentation and debate promotes critical thinking skills and the activity itself is designed around the kind of complex problems Paul and Willsen describe. But is it enough? Do argumentation and debate students internalize what they have learned? Are they really better decision-makers or are they just skilled advocates—sophists that can promote bad policies as easily as they can promote good ones?

A good portion of the answer to those questions has to do with what elements those students learn in argumentation and debate classes. Are they simply learning to construct powerful and persuasive arguments, or are they also learning to comprehensively evaluate

arguments and make ethical, productive decisions? *Argument construction* and *decision-making* are terms used for brevity. These terms will be more thoroughly defined in Chapter 1, but essentially argument construction means the process of putting together, building, and/or strengthening an argument, while decision-making means the comprehensive evaluation of *positions* (collections of arguments) for the sake of making a decision.

In order to test which approaches to teaching argumentation and debate best instill decision-making ability, we need to know which methods and materials are included in argumentation and debate texts. If there are problems with current materials, and they can be identified, we could develop more effective approaches by changing the texts, encouraging instructors to fill in the material not found in the texts, or both. Unfortunately, there have been no comprehensive reviews of the content of argumentation and debate instructional material, so we cannot currently evaluate their quality.

This study provides a comprehensive content analysis of currently available argumentation and debate textbooks in order to answer the research question: Do current argumentation and debate textbooks contain material designed to teach decision-making as well as argument construction? The study demonstrates that while most textbooks cover argument construction, and many cover elements that are useful precursors to decision-making, very few provide much attention to decision-making at all, and none provide comprehensive decision-making instruction.

Previous Reviews of Argumentation and Debate Textbooks

While there is a wealth of literature about various aspects of debate, critical thinking, and instructional practices related to those concepts, much of this literature is largely theoretical or anecdotal in nature. What is needed is a comprehensive attempt to evaluate what is actually being taught in argumentation and debate classes before we can determine what is necessary to

enhance argumentation and debate's ability to teach critical thinking and decision-making skills. Unfortunately, there have been very few reviews of argumentation and debate material at all and no comprehensive attempts to evaluate available argumentation and debate instructional materials in the United States.

There have been content analyses of communication textbooks, but not in the area of argumentation and debate. Brunner (2006), for example, analyzed representations of women in public relations textbooks to determine if the content of those texts have a potential impact on disparities between men and women in various public relations jobs. Webb and Thompson-Hayes (2002) looked for the presence or absence of discussions of several common theories in interpersonal communication textbooks to determine what similarities and differences exist in the material covered. Webb, et al. (2004) also analyzed differences in textbooks designed for family communication classes, based on the presence or absence of different subject areas within the field. Hess and Pearson (1991) examined the 12 most popular public speaking textbooks, using the presence or absence of 24 principles across five categories and the amount of space devoted to each of those principles. They determined that the textbooks gave insufficient attention to the question of ethics. Most recently, Pearson, et al. (2007) analyzed the 10 most popular public speaking textbooks to determine their level of attention to the issue of communication apprehension. None of these analyses addressed elements or issues that would help fill the gaps in the argumentation and debate literature with regard to decision-making.

In the only significant previous review of argumentation and debate textbooks, Tindell (1999) evaluated only 16 books in four categories (textbooks emphasizing logic/critical thinking, textbooks emphasizing academic debate, textbooks balancing logic/critical thinking and academic debate, and textbooks that may be used as supplemental readings), with no more than 6

books in any given category. Tindell's review of each book was very brief—all 16 books are covered in the space of less than six pages, with no more than one paragraph per book—and was designed to help instructors to select a textbook for various types of argumentation and debate classes, rather than to serve as a serious study of the content of these texts. It appears in the journal as a multiple book review, rather than a primary article.

In an article advocating negotiation as an exercise to teach argumentation skills, Williams and McGee (2000) included what they described as a "quick review" of some argumentation and debate texts. Similar to parts of this monograph, Williams and McGee addressed the idea that deliberation is an important part of argumentation and debate, but their purpose is not to conduct a serious study of textbook coverage of that issue. They are simply extracting references to cooperation, deliberation, and competitive advocacy to support their contention that teaching negotiation would serve an important pedagogical purpose. They only looked at 10 texts, and included books from as far back as 1971.

Gehrke (1998) did address some of the same issues that this study addresses (e.g., the assumption that the speaker is always right, exclusive use of the oppositional model, and the lack of self-directed critique), but not in a systematic fashion. Gehrke, while he did reach pedagogical conclusions about teaching "existential argumentation" and "argumentation without conclusion," was conducting more of a rhetorical analysis. While some of Gehrke's rhetoric suggests a larger study (e.g., "argument texts favor a particular logical model," (p. 77), "very few texts present substantive alternatives," (p. 77), "common of both argument and persuasion texts" (p. 77), etc.), he actually only looks at eight textbooks and only uses selected quotes from those. There does not appear to be an attempt to present representative passages from the text, much less representative textbooks from the pool of those available.

None of the three reviews is a content analysis and none of them provide any quantitative data, cover a significant or even representative sample of available argumentation and debate texts, or systematically address elements related to critical thinking or decision-making. Furthermore, given that all of the reviews are at least ten years old, many of the included textbooks now have new editions, and some are no longer even available, a new study would be warranted even if the original reviews had been content analyses. Finally, while each of the previous reviews may have addressed an issue or two that overlaps with this study, none of them attempted to provide a comprehensive analysis of elements related to decision-making.

This study attempts to fill some of the lacunae left by the paucity of previous work in this area by providing a comprehensive content analysis of currently available argumentation and debate textbooks. This analysis will identify the presence or absence of material designed to teach argument construction, argument evaluation, and decision-making. It will also identify which facets, if any, of decision-making are taught (e.g., cost benefit analysis, ethics, awareness of criteria, or importance of context), the instructional approach used (e.g., writing essays, participating in debates, or observing and evaluating debates), and the context in which argumentation skills are taught (e.g., focus on success/winning, focus on finding the truth, or focus on deliberation/decision-making).

Chapter 1, The Case for Critical Thinking and Decision-Making, first establishes the importance of critical thinking for both individual decisions and democratic participation. Second, it identifies limitations to current attempts to teach critical thinking and decision-making. The chapter concludes by suggesting educational approaches that may help overcome current obstacles to critical thinking and decision-making.

Chapter 2, The Case for Argumentation and Debate Instruction, begins by describing some of the most common approaches to argumentation and debate instruction. Second, the chapter reviews the established benefits of argumentation and debate instruction and participation in extra-curricular debate, especially on critical thinking ability. Third, the chapter reviews and addresses a variety of critiques of argumentation and debate, concluding that none of them provide a convincing rationale for rejecting argumentation and debate instruction. Finally, the chapter reviews some alternatives to argumentation and debate instruction, again concluding that none of them are suitable replacements.

Chapter 3, The Limits to Argumentation and Debate Instruction, begins by identifying some limitations to traditional argumentation and debate instruction, then suggests elements that may help overcome those limitations, if added to current approaches. The chapter concludes by identifying all of the elements that should be present for comprehensive decision-making instruction.

Chapter 4, Method, justifies and describes the approach used for this analysis. Chapter 5, Results, Analysis, and Conclusions, first provides a comprehensive listing of the results (e.g., the number of books covering the Toulmin model of argument, the number of books with sections about judging, and the number of books covering criteria awareness). Second, the chapter discusses what the results suggest about the content of current argumentation and debate textbooks. Third, the chapter identifies potential limits to this study and possibilities for future research. The chapter concludes with a discussion of the implications of the results for argument and debate instruction.

Current research on argumentation and debate textbooks is insufficient. There are a few reviews of debate textbooks, but they are shallow, do not include very many books, and none of

them have focused on argument evaluation and decision-making. Until additional research is conducted regarding the content of argumentation and debate textbooks, communication scholars will be unable to answer basic questions about the quality of those texts, make informed decisions about which textbooks to use, or whether we should replace, amend, or supplement them. And, until argumentation and debate instructors can make good decisions about the material they use, they will be unable to ensure that their students are adequately prepared to make good decisions. This, in turn, means we are less likely to have leaders and policymakers who can handle the complex problems that will inevitably need to be faced. Consequently, I offer the following content analysis of argumentation and debate textbooks, in the hope of providing a means to begin addressing these issues.

CHAPTER 1
THE CASE FOR CRITICAL THINKING AND DECISION-MAKING

Instilling critical thinking ability is one of the central goals of American education (Tsui, 1998) and has been an official goal of the U.S. Department of Education since 1990 (U.S. Department of Education, 1995; Spicer & Hanks, 1995). At least one former president and several state governors have indicated that it is both a national and state priority (Erwin, 2000). Though there is some variation in how scholars define critical thinking, there is a broad consensus on its importance (Potts, 1994). For instance, Freire (2000) lamented that teachers often follow *banking* or *narrative* models of education, where the educators assume they have knowledge, students do not, and they must impart their wisdom to their students. He argued that students must be able to think critically to participate in their own education. McLaren (1988) agreed, arguing that developing critical thinking ability is a prerequisite for students to protect themselves from being manipulated or oppressed. Because critical thinking is almost universally regarded as important, there have been constant attempts to integrate it into curricula at every level and dozens of studies to measure the effectiveness of those attempts (Tsui, 1998).

Despite these efforts, there are clear indications that critical thinking ability, or at least many of the facets of it associated with decision-making, is not reaching a significant portion of the American public. In this chapter, I define some key terms, then contend that there is a significant need for improving critical thinking and decision-making skills, that current approaches to teaching critical thinking and decision-making skills fall short of the need, and that argumentation and debate instruction shows some potential for fulfilling that need.

Definitions

It is important to understand certain key terms, especially given that some of these terms have a variety of meanings and in some cases overlap. Therefore, I will now define the following

terms, for the purposes of this monograph. I use *argument* in the common academic sense: a statement that includes a claim and some form of support. As indicated in the introduction, I use *argument construction* to mean the process of putting together, building, and/or strengthening an argument. This includes collecting multiple individual arguments into *positions*, which are organized groups of arguments designed to support a possible decision outcome, such as a policy. For example, on the question of whether or not the United States government should increase the federal tax on gasoline, one individual argument might be: most economists agree that increasing the gas tax would reduce gasoline consumption. A position on the same question might be that the United States government should increase the federal tax on gasoline, because: 1) atmospheric scientists say our current trends of gasoline consumption are contributing to increased air pollution; 2) a variety of physicians and other health experts have concluded that air pollution is causing illness and death in increasing numbers; 3) most economists agree that increasing the gas tax would reduce gasoline consumption; 4) many economists and leaders in the green technology industry are convinced that increasing the gas tax would increase the viability of alternative forms of energy, which could mean a further reduction in gasoline consumption in the future.

Since the term *argument evaluation* can refer to assessing anything from an individual statement (or even just a part of that statement) to analyzing assortment of arguments or positions, I use the term *decision-making* to focus on a specific range of argument evaluation. Decision-making means the comprehensive evaluation of positions for the purpose of making a decision. Decision-making includes consideration of the context in which an argument is made and the criteria which are used for making a decision. I distinguish decision-making from other forms of argument evaluation based on scale and goal. Decision-making is broader than

assessing an individual argument or aspect of that argument for the purpose of constructing a stronger case or criticizing an opponent's case. For example, putting together a case to support a policy change is argument construction; evaluating the credibility of an opponent's supporting evidence for the purpose of attempting to undermine their argument would still be considered argument construction, even though it involves a level of assessment. In comparison, deciding between three competing policy options, each with different levels of feasibility and each with their own advantages and disadvantages, after establishing appropriate criteria for comparing those options, would be decision-making.

There are many definitions of *critical thinking* (Petress, 2004; Paul, 2005; Willingham, 2007), and some scholars have lamented that critical thinking is "seldom clearly or comprehensively defined," and that definitions "are quite disparate and are often narrowly field dependent" (Petress, 2004, p. 461). Some definitions are descriptive of the concept, whereas others attempt to list the component skills that contribute to critical thinking. Furthermore, in the past there has been disagreement about whether or not there are general, *transferable* critical thinking abilities (i.e., thinking skills that apply in a variety of situations, or even in every situation) or if critical thinking is inherently area-specific (McPeck, 1990; Paul, 1990). Fortunately, most of the different definitions are not actually mutually exclusive and all of them fit into the larger picture of what critical thinking is. There are elements of critical thinking that are general skills that transfer from area to area and can be taught in a straightforward manner (Paul, 2005), whereas other facets are best seen as metacognitive strategies that are more difficult to teach and often do not transfer well from field to field (Willingham, 2007). This monograph does not rely on any one definition of critical thinking, and has the goal of improving as many aspects of critical thinking as possible, however defined. For the purpose of clarifying what some

of the existing research on critical thinking means for argumentation and debate pedagogy however, I will distinguish between some of the major facets of it.

Tsui (1998) provided probably the best and most comprehensive review of studies investigating critical thinking among college students, a meta-analysis covering dozens of previous studies. Her analysis highlighted differences in how critical thinking was defined, operationalized or tested in the various studies. For instance, some critical thinking tests expect students to produce the right answer (e.g., Watson-Glaser Critical Thinking Appraisal) while others are more concerned with the right process (e.g., the GRE analytical writing section). Additionally, some problems are *well-structured* and have a right answer (e.g., a logic problem on the LSAT), whereas others are *ill-structured* with a variety of better and worse answers, but that cannot be answered with certainty, such as public policy questions (e.g., Are subsidies for biofuels beneficial?). The differences between these tests help illustrate that the transferable/nontransferable dichotomy is a false one. Students can be taught to recognize certain inferences, argument structures, and fallacies, and their abilities in this area can be measured objectively with tests such as the Watson-Glaser Critical Thinking Appraisal (WGCTA). Furthermore, the ability to assess argument structures in this manner is not domain specific (Paul, 1990; Toulmin, 1958). Other facets of critical thinking, such as those measured by ill-structured tests, may require domain-specific knowledge and cognitive strategies, and may only be effectively tested with domain-specific tests, or at least problem sets that are structured in the same manner as the examples the students originally learned from in class (Willingham, 2007).

I view decision-making as requiring both facets of critical thinking at different stages in the process, as well as additional specific components such as criteria awareness and attention to

ethics, as detailed in Chapter 3. The following sections indicate the importance of critical thinking and decision-making, both to individuals and to a healthy democracy, and begin to highlight why it would be best to provide as much attention to as many facets of critical thinking and decision-making as possible.

Critical Thinking Is Vital to Individuals

Critical thinking and decision-making are important parts of everyone's lives, whether they are aware of it or not. We constantly evaluate options, solve problems, and make decisions on scales from the very small to the very large. Many scholars (Dewey, 1910; Ehninger & Brockreide, 1963; Makau, 1990; Paul, 1990; Paul & Willsen 1995) have argued that critical thinking ability is crucial for making good decisions. Decisions made critically are more flexible and reliable than those made uncritically (Ehninger & Brockreide, 1963) and critical thinking is regarded as essential for both personal and professional decisions (Makau, 1990). Paul and Elder (2002) have argued that critical thinking is universally practical:

> There is nothing more practical than sound thinking. No matter what your circumstance or goals, no matter where you are, or what problems you face, you are better off if your thinking is skilled. As a professional -- shopper, employee, citizen, lover, friend, parent---in every realm and situation of your life, good thinking pays off. Poor thinking, in turn, inevitably causes problems, wastes time and energy, engenders frustration and pain. (p. 7)

Makau and Marty (2001) have noted that while decision-making is easy to underestimate, it is pervasive:

> Decision-making processes have an even broader, more pressing impact on our lives than may be evident on the surface. Although it is not always apparent, almost every thought and action is influenced by our deliberations. For example, when we awaken each day, we make a number of decisions, many of which are so much a part of our being that we are not fully conscious of the deliberation process involved in making them. How will we spend our time? What will we do first? What will be our priorities? How will we choose to interact with others that day?...At the end of each day, how will we measure the quality of our contributions? (p. 4)

According to Paul and Willsen (1995), people's desire for predictability and stability often encourage them to look backward for "tried and true" answers, but since the world constantly changes, and new technology accelerates that change, the past can not always serve as a reliable guide, so people have to continually reassess their environment and their approaches to it. Makau and Marty (2001) have argued that, while we cannot control all of these changing external circumstances, we can respond to them proactively through critical thinking, allowing people to retain some control, and to "meaningfully change their minds and their lives" (p. 11). They argued that it is a source of empowerment and critical for people attempting to transform their own lives.

Some might argue that not everyone needs to be able to deal with complex issues—that it is the role of policy makers and their advisers; ordinary citizens do not have to be able to evaluate the same kinds of complex public policy questions. There are a number of problems with this objection. First, even though it is true that not everyone will become a leader or policy decision maker, in a democratic system, everyone still has to vote for the people who will become those decision-makers or who will appoint those decision-makers. The voting process works much better if people know enough about the issues to evaluate the candidates (even though it is unrealistic to expect them to have the same level of expertise as those candidates). Second, we have to provide an opportunity for the people who will become leaders and policymakers to develop their decision-making skills, and since we don't know ahead of time who these people will be we need to make these opportunities as widely available as possible. The more people we have with these skills, the more options we will have when it comes time to choose our leaders and decision-makers. Third, reaching as many students as possible also helps avoid dangers that could develop because of disparities in critical thinking ability. For example,

Paul and Willsen (1995) have argued that reaching a large segment of the public is necessary to prevent an ideological elite from dominating and oppressing the rest of the population:

> Critical thinking is ancient, but until now its practice was for the elite minority, for the few. But the few, in possession of superior power of disciplined thought, used it as one might only expect, to advance the interests of the few. We can never expect the few to become the long-term benevolent caretakers of the many.
>
> The many must become privy to the superior intellectual abilities, discipline, and traits of the traditional privileged few. Progressively, the power and accessibility of critical thinking will become more and more apparent to more and more people, particularly to those who have had limited access to the educational opportunities available to the fortunate few. (p. 16)

Fourth, decision-making skills are useful to everyone, even if we limit decision-making to the context of making policy decisions. While we normally think of policymaking as referring to national or international policies, the term really just means "a course of action" or "a plan." Everyone has to make decisions about what they're going to do and decisions about what college to attend or which apartment to rent involves comparing advantages and disadvantages just as certainly as decisions about national and international policy do.

Critical Thinking Is Vital for a Healthy Democracy

The problems Paul and Willsen (1995) list in the opening epigraph highlight how vital it is to produce and elect effective decision-makers. Basic democratic theory assumes that all citizens should have voices and that the more voices are heard, the more likely that the resulting policies will be fair and effective (Lau & Redlawsk, 2006). This theory is also based on the premise that persuasion is a better approach to decision-making than violence and as such, democracy has been regarded as "government through talk" or perhaps "government through communication":

> At the nexus of democratic policy making lies communication. Decisions become both reasonable (in various senses) and democratic depending on the form and substance of the communication that produced them. Figuring out where to go to dinner may require some talk, but political decision making is much more difficult, since often one policy decision must apply to a number of different contingencies and constituents. One could

> reduce the complexity by not talking it out, just appointing a "decider." However, one of the characteristics which the Founders consciously duplicated from classical democracy is a reliance on the role of speech in democratic governance. Democracy is governance through talk. (Keith, 2007, p. 2)

Though most citizens do not make final policy decisions themselves, they vote for the policy makers that do. To some extent, citizens need to *be* effective decision-makers in order to *elect* effective decision-makers and for the democratic system to function properly. Unfortunately, decades of research have demonstrated that Americans do not live up to this ideal. As Lau & Redlawsk (2006) explain:

> The classic texts of democratic theory assume that for democracy to function properly, citizens should be interested in, pay attention to, discuss, and actively participate in politics. The attention and discussion provide information about political affairs, which allow citizens to make political decisions (e.g., a vote) based on carefully considered principles reflecting their own self-interest and the common good. All citizens may not be able to live up to the standards -- some may be too disinterested, or lack sufficient information, or lack the skills to understand politics, and as a consequence vote by habit or narrow prejudices, or not vote all -- but as long as a clear majority of citizens do live up to the standards, the collective wisdom of the people will prevail.
>
> As discussed in earlier chapters, however, five decades of behavioral research in political science have left no doubt that only a tiny minority of the citizens in any democracy actually live up to these ideals. Interest in politics is generally weak, discussion is rare, political knowledge on the average is pitifully low, and few people actively participate in politics beyond voting. (p. 72)

Of these problems, three issues are of special concern: the inability to process information, the lack of attention to issues, and the increasing hold of partisanship and polarization in the place of issues.

Inability to Process Information

While most critical thinking scholars would not be surprised at the claim that most people lack information processing skills, recent research has demonstrated that this is true specifically with regard to processing political/policy information and making voting decisions (Gershman, 2008; Lau & Redlawsk, 2006; Steigerwald, 2007). For example, Lau and Redlawsk (2006) measured people's ability to vote “correctly” by allowing them to select their views on a number

of issues and then subjecting them to a mock campaign involving simulated fictional candidates. The researchers found that only 70% voted correctly (which they regarded as a high percentage, and a positive outcome) if the choice was limited to two candidates. If more than two candidates were involved, the numbers were barely above random chance.

A seemingly positive development in recent years is the push to make more information available to voters on the assumption that more knowledge about the candidates allows voters to make a better decision. Unfortunately, researchers have also found that voters are so bad at processing political information that they actually did better at picking the "correct" candidate with less data or based on party affiliation alone (Lau & Redlawsk, 2006; Steigerwald, 2007). Furthermore, this study allowed people to determine the "correct" positions themselves, but many scholars question whether people understand the issues enough to know what their interests really are and/or which policies best uphold those interests (Gershman, 2008). This study also supposes that people vote on the basis of issues to begin with, but research indicates that they do not.

Issues Do Not Matter

Extensive research indicates that issues simply do not matter to most voters (Gershman, 2008; Jamieson & Birdsell, 1988; Lewis-Beck, Jacoby, Norpoth, & Weisberg, 2008; Steigerwald, 2007). Furthermore, much of the research indicating any level of voter interest in issues overstates that level of interest. Lewis-Beck et al. (2008) found that while people often *seem* to care about an issue because they can react to questions about that issue or take a position on it, they do not actually vote based on those issues. Even more disturbing is that the only issues people *do* vote on are emotionally charged issues where "passion trumps reason," like abortion (English, 2004, p. A19). This suggests that voters are not applying much critical thinking to their voting decisions.

The lack of attention to issues has real and ominous implications for government policy: first, there is no clear policy mandate for the government to follow; second, the government is less accountable for the actions it does take. Lewis-Beck et al (2008) explain:

> The situation has two major implications. First, the electoral signal from a vote, that is, the policy direction of the balloting, is vague. If the public issue preferences are clouded for the reasons just described, then it is difficult for the winning party to claim a mandate for any particular policy. And consistent with this concern, chapter 8 showed that there is quite a bit of variability in the public's beliefs about the candidates' positions on the most prominent issues of the day.
> The second implication is the flip side of the first. Because the public does not convey a crystallized set of policy preferences and does not have a clear idea about what public officials are doing, government leaders have considerable freedom to carry out the actions they please. This latitude may be dangerous for the democratic ideal of popular control over public policy. Or it may be an advantage, since elites can engage in the accommodation and compromise that are necessary to make public policy. In either case, public officials can act without much worry of close scrutiny from the mass electorate. (p. 416-417)

It seems only fitting that communication research has blossomed under a system of "government through communication," but this has also produced an ironic side effect—it has allowed for better political propaganda and manipulation. Public inattention to policy issues, combined with advanced propaganda techniques developed from years of study in the areas of marketing, advertising, and persuasion, makes the possibility for unrestrained government action seem even more frightening (Jackson, & Jamieson, 2007; Soros, 2006). Paul and Elder (2006b) argued that democracy depends on the public's ability to assess information from media sources. They explained that media bias manifests even without overt political ties or manipulation, because time constraints mean media sources must be selective about the information they present. Regardless of what selection criteria are used, bias is inevitable. People can only reduce the media's influence over them if they understand sources of information and how selection works. Paul and Elder argue that reducing media influence is critical to a true democracy and citizenship.

Partisanship and Polarization

The electorate is becoming increasingly polarized and partisan. Recent research indicates that party affiliation has by far the biggest influence on voting behavior (Gershman, 2008; Lewis-Beck et al, 2008; Steigerwald, 2007). Lewis-Beck et al. also indicate that partisan polarization is increasing, along with the number of citizens whose survey responses and voting patterns classify them as *ideologues* or *near-ideologues* (2008, p. 425). This, in turn, means that people are more likely to make up their minds before the campaign begins and less likely to consider issues, thus exacerbating the problems highlighted in the previous section. This rise in partisanship acts synergistically with another media related problem—the coverage of politics as a kind of "sport," which makes policy efficacy and truth matter less than winning and losing (Friedman, 2010; Keith, 2007). These trends combine to make intra-government debates less unitary and more adversarial, which serves as a barrier to deliberation (Keith, 2007).

Many scholars concur that critical thinking is necessary for a properly functioning democracy (Ehninger & Brockreide, 1963; Makau, 1990). Makau and Marty (2001) sum up the threat to democracy posed by a lack of critical thinking:

> Within democratic states, as within any form of governance, politics involves the distribution, exercise, and maintenance of power. Responsible exercise of the freedoms associated with democratic government enhances considerably the chance that power will be distributed, exercised, and maintained wisely. Just as freedom is essential to the ability to think critically, history has shown that the responsible exercise of critical thinking is fundamental to the preservation of essential human liberties. Unquestioning acquiescence to authority undermines this liberating process. (p. 15-16)

These trends bode ill for the fairness and effectiveness of government policy decisions. They also suggest that we are not likely to successfully confront the laundry list of global problems Paul and Willsen (1995) presented in the opening epigraph unless we can change current trends in critical thinking and decision-making. Paul and Willsen (1995) have also argued that the

importance of critical thinking for decision making will continue to increase, as problems become more complex and interrelated. They predicted:

> The world of the 21st Century—virtually all commentators agree—will see intensifying economic competition between forms of capitalism. Governmental, economic, social, and environmental problems will become increasingly complex and interdependent. Basic causes will be both global and national. The forces to be understood and controlled will be corporate, national, trans-national, cultural, religious, economic, and environmental, all intricately intertwined. Critical thinking will become a survival need, an external imperative for every nation and for every individual who must survive on his or her own talents, abilities, and traits. (p. 13)

Policymakers who can make good decisions are critical to our safety and well-being, yet for a host of reasons, we can not rely on government policy or media reform to address the issues identified in this section. Soros (2006) observed:

> Many people blame the media for the current state of affairs. But the media merely serves the market. People want to be entertained, not informed, and that is the market the media seeks to serve.…Free and pluralistic media are an essential institution of an open society, but most of the media has ceased to fulfill its institutional role. There are only a few remnants, too few to guarantee the critical process. (p. 96-97)

Friedman (2010) argued that it must be people that change, or the government will not: "It comes back to us: We have to demand the truth from our politicians and be ready to accept it ourselves" (¶ 14). Jackson and Jamieson (2007) agreed that change can not be trusted exclusively to institutions, "We simply can't always count on government regulators, courts, or the news media to soar through the daily barrage of baloney" (p. x). Fortunately, education offers us a way out. According to Lewis-Beck et al. (2008), while the government and the media cannot currently reflect public views on specific issues (because the public does not follow issues), they do more generally reflect and respond to public desires and demands. People can only be manipulated if they are complicit with their own manipulation (Soros, 2006). Jackson and Jamieson (2007) have claimed both that certain elements of critical thinking education can help inoculate the public against media manipulation and, even more promising, that sufficient public demand will effect

positive changes in media coverage of policy issues and government responses to policy questions. If more people could demonstrate critical thinking ability, we could significantly change our systems for the better. Unfortunately, the current trend is in the wrong direction.

Americans Lack Critical Thinking Ability

Given the obvious importance of critical thinking and decision-making, the attention they have received in our educational system is not surprising. Despite this attention, critical thinking levels are disappointingly low in the United States. Recent studies show students score low on tests of critical thinking ability (Brannigan, 2009; Krueger, 2009) and, more specifically, students demonstrate an inability to understand and evaluate arguments (Shellenbarger, 2009; Viadero, 2009). Even "experts" are susceptible to erroneous decisions due to lapses in critical thinking (Gilovich, 1991).

In addition to lacking certain critical thinking skills, people also allow certain obstacles to interfere with their critical thinking ability. For example, Elder and Paul (2007) note that most people not taught to think analytically. Instead, they are conditioned to make certain responses, rather than think freely and reflexively, and are often motivated by fear or other emotions (Paul & Elder, 2006a). Additionally, due to cognitive dissonance, people have a hard time accepting that they have made a bad decision because it conflicts with their view of themselves as intelligent (Tavris & Aronson, 2007). This is consistent with Elder and Paul's (2004) observation that people are susceptible to what they call *egocentric* thinking, privileging their own perceptions and intuitions over those of others. Unfortunately, people are unaware of these egocentric assumptions unless they are trained to recognize them, and this creates blind spots for otherwise skilled thinkers. As a result, people have a natural tendency to ignore their own mistakes, which not only lead to policy failures and exacerbate them, but also can hinder opportunities to correct those mistakes (Tavris & Aronson, 2007).

Another problem is that people often mistake cynicism for critical thinking (Makau & Marty, 2001). As Jackson and Jamieson (2007) argue, cynicism not only fails, but is as dangerous as naïveté:

> The skeptic demands evidence, and rightly so. The cynic assumes that what he or she is being told is false.…But too many people mistake cynicism for skepticism. Cynicism is a form of gullibility -- the cynic rejects facts without evidence, just as the naïve person accepts facts without evidence. And deception born of cynicism can be just as costly or potentially as dangerous to health and well-being as any other form of deception. (p. 175)

Current Approaches to Critical Thinking Instruction Are Insufficient

Given that our desire to promote critical thinking in our schools has so far manifested in very disappointing results, there must be some problems with current methods for teaching critical thinking. According to Willingham (2007), this is certainly the case:

> Following the release of A Nation At Risk, programs designed to teach students to think critically across the curriculum became extremely popular. By 1990, most states had initiatives designed to encourage educators to teach critical thinking, and one of the most widely used programs, Tactics for Thinking, sold 70,000 teacher guides. But, for reasons I'll explain, the programs were not very effective—and today we still lament students' lack of critical thinking. (p. 8)

Several scholars in the critical thinking field regard classes designed specifically to teach general critical thinking skills as ineffective and/or problematic (Kaplan, 1991; McPeck, 1981, 1990; Willingham, 2007). Willingham (2007) and McPeck (1981,1990) are skeptical of even the mixed results for special critical thinking programs. Both argue that most of the positive results are obtained only when the measurement instrument matches the kinds of problems students see in the class—meaning that the tests do not indicate the presence of a general critical thinking ability that is transferable to different kinds of problems in multiple fields or contexts. Willingham (2007) concludes that special programs for critical thinking are not worthwhile:

> Special programs aren't worth it.…I've mentioned a few of the better known programs. Despite their widespread availability, the evidence that these programs succeed in teaching students to think critically, especially in novel situations, is very limited. The modest boost that such programs may provide should be viewed, as should all claims of

> educational effectiveness, in light of their opportunity costs. Every hour students spend on the program is an hour they won't be learning something else. (p. 18)

Despite this troubling conclusion, Willingham (2007) and many other scholars (Elder & Paul, 1996, 2004; Paul & Elder, 2006; Gilovich, 1991; Makau & Marty, 2001) still believe that barriers to critical thinking can be overcome. The challenge lies in identifying the elements that best achieve this goal, and the best instructional approaches for integrating those elements. The possibility remains that effective programs exist, but are not widely used.

Research on Critical Thinking Instruction

In her meta-analysis and review of 62 prior studies of critical thinking programs, Tsui (1998) found at least 15 studies demonstrating gains in critical thinking ability among college students, though several studies found that scores were low despite these gains. She also looked the effects of specific instructional practices, curriculum design, and field of study on critical thinking. Studies on instructional practices designed to enhance critical thinking produced mixed results, with some practices producing significant results and others not. The only consistent finding for curriculum effects was that students at institutions with a general education curriculum made greater gains in critical thinking ability. Tsui also found that courses designed specifically to increase critical thinking ability produced mixed results. In her exploration, she highlighted a number of reasons for the mixed results, including different definitions and measurements of critical thinking, the very short period of time between pretest and posttest for most of the studies, and several variables that could not be accounted for such as differences in instructor approach and ability and simultaneous exposure to other coursework. Despite potential problems with definition, measurement, and objectives, Tsui and others provide plenty of hope that we can measure and improve critical thinking. Tsui (1998) indicates that as long as researchers are aware of what characteristics they are looking for and select an appropriate

instrument for measuring that particular set of skills, they can produce reliable data. More importantly, a number of studies indicate that shortcomings with a particular definition for or method of testing critical thinking ability can be overcome through the use of multiple measures (Aretz, Bolen & Devereux, 1997; Spicer & Hanks, 1995; Tsui, 1998). Thus, if a particular practice results in improvements in critical thinking ability on multiple tests using multiple criteria, then that practice can safely be viewed as beneficial even if there are limitations associated with any of those tests on their own.

What does the research reveal is most effective? As the next chapter demonstrates, argumentation and debate instruction is one of the most effective approaches to improving basic critical thinking skills, and shows a great deal of promise for training students to overcome obstacles to critical thinking, and to develop more advanced facets of decision-making ability.

CHAPTER 2
THE CASE FOR ARGUMENTATION AND DEBATE INSTRUCTION

Argumentation and debate classes are designed to improve critical thinking and decision-making ability. While there is extensive literature demonstrating the benefits of taking argumentation classes and participating in debate, there is also evidence that these classes and activities could be improved and that some practices work better than others. In this chapter, I begin by briefly describing three common contemporary approaches to teaching argumentation and debate. Second, I establish that argumentation and debate improves critical thinking. Third, I review major criticisms of argumentation and debate, concluding that none are fully valid. Finally, I review approaches that have been offered as alternatives to argumentation and debate, concluding that none of them is an adequate substitute, though some of them may productively supplement argumentation and debate instruction.

Description of Current Approaches

Current argumentation and debate classroom practices can be divided into two basic categories: argument theory classes (which do not include debates) and debate classes (which include debates). The former can include a range of approaches from formal to informal logic. In these classes, students are taught rules for logic, argument theory, and given examples of arguments to analyze and assess. Some of these classes will go further by including either construction of argument positions or evaluation of collections of arguments. Typical of this approach are textbooks which include chapters on the Toulmin model of argument, analysis of propositions, tests of evidence, and a discussion of different categories of arguments and fallacies. Some of these books may include a section on how to translate real world arguments into formal logical terms so that students can apply formal logic to everyday arguments and evaluate short argumentative essays; others might ask students to construct positions for or

against a topic and build a persuasive speech to support their side of the topic. There is often no discussion of rebuttal or of interaction between arguments in such textbooks.

Debate classes are likely to cover much of the same basic material as argument theory courses, though in less depth. Debate classes are unlikely to include sections on formal logic and, while they are likely to include at least some discussion of argument categories and fallacies, they are less likely to spend much time on these issues or to do many exercises based on that material. Instead, a debate class is likely to focus on one or more propositions of policy and analyze policy options through the application of stock issues such as ill, cure, blame and cost. Debate classes teach argument construction and, rather than require students to write essays or prepare formal speeches, are likely to require students to construct argument briefs. These briefs are modular sets of arguments and evidence, designed to be flexible so that students can use them to respond to a range of different points during a debate. Unlike theory courses, debate classes include applied debates that generally include both constructive and rebuttal speeches, so that not only are positions presented, but they are responded to and interact with each other. Debate classes may also require students to watch or even judge class debates. Additionally, students are also often taught to *flow*—a specialized form of critical listening and note taking—in order to keep track of arguments that they, their teammates, and opponents have made.

In addition to these courses, some students will learn argumentation and debate through participation on an extracurricular debate team. In this case, they are likely to learn and go through many of the same things that occur in the debate class. The main difference between classroom and team participation is the level of involvement. Students who join a debate team will participate in far more debates and will have far more practice and coaching time than

students in a class. At a minimum, students on an intercollegiate policy debate team will have as much classroom instruction time (e.g., talking with coaches before debate, participating in debates, and listening to judge feedback) over the course of three tournaments as most students would get taking two normal classes (three credits, or 45 hours each). Many debaters will have even more time in the classroom—a varsity team competing at a national-level tournament with eight preliminary and five elimination rounds might have more than 50 hours of instructional time at a single tournament. Indeed, the actual instructional time is much higher, since the examples listed do not count discussions in lengthy van rides to and from tournaments, during meal breaks, or at night after competition. Additionally, debaters participating in competition will do far more research than most students in a classroom; the level and quantity of research for a single season of competition has been equated to the amount of work required for a master's thesis (Ingalls, 1985).

All three argumentation training approaches are beneficial to some degree. They expose students to argument theory and some methods for assessing arguments. They also offer students ways to organize arguments and to attack or defend a proposition. However, classes incorporating debate have a number of advantages over those that do not. For instance, while argument theory classes offer a way to assess individual arguments, debate classes teach students to test those arguments on multiple levels and, most importantly, in the face of competing arguments. In other words, an argument course allows a student to test the quality of all of the individual arguments that make up a case, but generally do not provide the means to evaluate facially good arguments against other facially good arguments. In comparison, debate classes provide students with different ways to resolve the overall debate when both sides are "winning" their individual arguments. Debate classes also allow for more fruitful practice and repetition of

skills. While position papers in an argument theory class could be revised, there is otherwise no point in presenting them more than once with different opposing papers, since there is no interaction. Additionally, position papers and even pro and con speeches only provide one or two levels of analysis on any given issue. In contrast, debates allow a variety of cases to be tested in a variety of ways against a variety of arguments. This multiple testing, combined with requiring students to debate both sides of a topic, exposes students to a wider variety of perspectives on each issue—an eight-speech policy debate provides seven levels of analysis. Debates also have speech time limits, which require students to be selective with which arguments and evidence they present and to consider strategy and tactics that they would not otherwise. For these reasons, debate classes are better at thoroughly developing critical thinking and decision-making skills than argument theory classes. This conclusion is consistent with past studies on the effect of taking argument classes and participating in debate as an extracurricular activity.

Yet, there are potential disadvantages to the debate approach. Since debate has a competitive performance element, it may produce some level of anxiety in some students. It also requires the instructor to cover more material more quickly, and requires the students to teach themselves more of the material, especially on the topic for their debates. This raises the fear that students will not learn or retain as much of the material. Fortunately, however, when Goodwin (2003) studied student responses to debate, she found that, while some students were anxious about the debates, most of them found the anxiety motivating, meaning that they tried harder in the hopes of being better prepared and reducing their nervousness. The same study and others (e.g., Bellon, 2000) found that students were overwhelmingly more motivated in class and viewed the debate approach favorably afterwards. Thus, the relative speed with which the material is covered and the extra pressure it puts on students seems to lead students to rise to the

challenge, since several studies show that students are more likely to learn and retain material if it is approached through a debate format (Bellon, 2000; Cronin, 1990; Goodwin, 2003).

Argumentation and Debate Improves Critical Thinking

Critical thinking is the most extensively documented benefit to argumentation and debate instruction (Colbert, 1987). Indeed, there are dozens of testimonials supporting the contention that argumentation and debate improve critical thinking skills (e.g., Butt, 1999; Colbert & Biggers, 1985; Daley, 1998; Edmonds, 1997; Ewbank, 1951; Giesecke, 1981; Huston, 1985; Ingalls, 1985; Lombard, 1997; Lybbert, 1985; Mathews, 1997; Matlon & Keele, 1984; McGuire, 1996; Mitchell, 1998; Morton, 1997; Oliver, 1985; Parcher, 1998; Sodikow, 1985; Sowa-Jamrock, 1994; Suk, 1998; Ulrich, 1991; Wallmark, 1985; Walwick & Mehrley, 1971). As one teacher put it:

> Unlike teaching methods which suppress critical thought, debate is a real, legitimate learning activity. It is this activity, and not the teacher, which developed skills of critical thought and reasoning. We can maintain that debate is one of the most effective learning methods in our educational system. (Oliver, 1985, p. 2-3)

In addition to the voluminous testimony, survey evidence supports the claim that debate enhances critical thinking ability. For example, Lee and Lee (1991) found that 92% of high school students participating in debate perceived gains in critical thinking ability as a result. Additionally, Matlon and Keele (1984) surveyed over 700 former debaters and found that critical thinking was one of the most widely perceived benefits of participation.

Furthermore, a wealth of empirical evidence demonstrates the debate-critical thinking relationship. For example, Brembeck (1949) measured increases in critical thinking ability among over 400 students at eleven different institutions. Colbert (1987) provided even more compelling evidence by using a pre-test, post-test format to compare debaters and non-debaters. In comparing 285 students at eight different colleges and universities, Colbert found that

debaters' scores on the Watson-Glaser Critical Thinking Appraisal (WGCTA) improved significantly more than non-debaters over the course of a year. Perhaps the most compelling evidence comes from two studies measuring the effect of debate on high school students. Barfield (1989) studied students in the southeast, collecting pre- and post-test data for 155 debaters and a control group of 155 non-debaters. His study demonstrated that participation in debate was strongly related to improved critical thinking ability. Later, McKee (2003) replicated Barfield's study in South Dakota and obtained similar results.

Finally, Allen, Berkowitz, Hunt, and Louden (1999) conducted a meta-analysis of past studies of communication training and critical thinking. After looking at data from eighteen previous studies, including unpublished dissertations and theses which had previously received little attention, the researchers found that speech and debate training in communication classes helps critical thinking and that active participation in forensics or debate provides an even more significant boost. They further found that the methods of statistical analysis used in some of the previous studies tended to understate the effect of the training or participation. Their conclusion was unequivocal:

> The most important outcome of the present meta-analysis is that regardless of the specific measure used to assess critical thinking, the type of design employed, or the specific type of communication skill training taught, critical thinking improved as a result of training in communication skills.…Participation in forensics demonstrated the largest improvement in critical thinking scores.…The companion activities of engaging in both argument and counterargument…better prepare students to become full participants in society….Competitive forensics, particularly debate, may require the development of critical listening skills, an often underdeveloped part of the practice that is important.…Forensic participation…can be justified on the basis of the critical thinking improvement offered. These results provide important evidence to support the maintenance of forensics and other communication skills training programs in an era of increased educational accountability, downsizing, and budgetary cutbacks.…This summary of existing research reaffirms what many ex-debaters and others in forensics…would support: participation improves the thinking of those involved. (p. 27-28)

As all of this evidence demonstrates, argumentation and debate instruction clearly improves critical thinking skills. The results of the quantitative and qualitative studies of debate and basic critical thinking skills are clear. There is also evidence that argumentation and debate help address some of the barriers to critical thinking identified in Chapter 1, and may help develop more advanced decision-making skills.

Argumentation and Debate Overcomes Barriers to Decision-making

Chapter 1 identified cognitive dissonance and egocentric thinking as biases that create blind spots for even skilled thinkers. Research has shown that people can be taught to overcome these natural tendencies, but the training must extend beyond just teaching the skills to providing a larger framework or process for applying those skills consistently. Introducing people to external procedures, encouraging self-awareness and the ability to look at their decisions as if it was someone else, and being trained to accept criticism can overcome these bad habits (Tavris & Aronson, 2007). Egocentric thinking can also be overcome by practicing considering issues from both sides (or multiple perspectives), teaching people to be aware of the criteria they are using, putting both sides into a larger perspective, and teaching people to apply the standards they have learned to themselves (Elder & Paul, 2004). Debate, especially switch-side debate, allows people to separate issue from self (Greene & Hicks, 2005), which suggests that it is exactly the kind of training that helps people avoid the kind of dissonance that disrupts their judgment. Debate provides external procedures for evaluating decisions that provide participants with a more objective checklist than their own feelings. Debate provides incentives to get used to criticism because participants regularly receive and benefit from judge or instructor feedback, and the desire for success provides an incentive for critical and honest self reflection.

Elder and Paul (2007) and Willingham (2007) argued that problem structures and problem solving processes need to be made explicit to students, and that students need to practice

applying these structures. Many scholars from education, critical pedagogy, and cognitive psychology have concluded that repetition and practice are important for students to internalize critical thinking skills enough to apply them in diverse contexts (Elder & Paul, 1996, 2004, 2007; Gilovich, 1991; Makau & Marty, 2001; Willingham, 2007). This internalization is important for ongoing self-reflection that is important for maintaining an open mind and not succumbing to personal biases (Elder & Paul, 1996, 2004, 2007; Freire, 2000; Gilovich, 1991; Makau & Marty, 2001). Elder and Paul (1996) added that immediate feedback also helps with the process of internalization. Again, competitive debate provides plenty of practice and feedback for participants. The more debates that argumentation and debate classes offer, the better they would meet this criterion.

Argumentation and debate also helps address, or at least render moot, the question of whether critical thinking skills are transferable or not. As indicated previously, several scholars have made the point that students need to learn critical thinking skills in a particular context, or at least that knowledge of a particular domain is necessary to fully apply critical thinking and decision-making skills within that domain (Elder & Paul, 2007; McPeck, 1981, 1990; Willingham, 2007). If argumentation and debate is taught within the context of a particular policy topic, it provides both the general and field-specific facets of critical thinking and decision-making. Students learn general skills about argument assessment through applying them to specific policy questions, learn more about their policy topic as a research positions for their debates, and learn more about structures and decision-making as they match their positions with other positions on both sides of the topic during their debates. If Willingham (2007) is correct, this should help students learn the *deep structures* involved in policy analysis, making it easier for them to apply the critical thinking strategies they have developed to other areas. Even if

students are unable to transfer their policy analysis strategies to other fields, the field they have learned is a vital one. Chapter 1 explains the importance of understanding arguments and policy issues for political engagement and democracy. If the critical thinking strategies transfer, argumentation and debate potentially helps people with every facet of their lives; if the strategies do not transfer, our system of democratic decision-making still greatly benefits.

Critiques of Debate

Despite the clear benefits, a number of scholars have leveled various critiques against debate. Critics have charged that debate promotes sophistry, disadvantages women, and/or is coercive. Some critics have also offered alternatives to debate as a teaching method or as a decision-making process. In this section, I explain and respond to these critiques.

Debate promotes Sophistry

Over the years, many scholars (e.g. Murphy, 1963) have argued that the predominant switch-side model of debate is unethical and encourages sophistry because it requires students to defend positions that they do not actually believe. This argument, while perhaps intuitive, is not consistent with the observed results of decades of switch-side debate. Both Bellon (2000) and Goodwin (2003) found that students become more open minded through participation in switch side debate. Muir (1993) addresses this argument in more detail, explaining that switch side debate promotes pluralism not relativism, allows students to overcome socialization and peer pressure, and promotes tolerance and empathy without promoting moral irresponsibility.

Debate disadvantages Women

Some feminist scholars have made the claim that argumentation and debate are male constructs and are not the natural mode of communication for women (Foss & Griffin, 1995; Gearhart, 1979; Stepp, 1997). As a result, some scholars have moved away from argument and persuasion in their classes and have emphasized other modes of discourse, such as narrative;

Fulkerson (1996) identified three examples of these moves in the area of college composition classes alone. Others have argued for changes in debate practices and in the structure of debate organizations in order to challenge the perceived discrimination (Hobbs et al., 2000; Stepp, 1997).

These moves might be understandable if there was any evidence to support the idea that engaging in argument inherently disadvantages women or allows men to perpetuate their dominant role. However, this notion has already been solidly debunked by a number of authors. For example, Condit (1997) explained that such a view assumes that individuals have "unique, pre-given selves" (p. 93), operates with a binary conception of gender, which excludes homosexual, transgender, or other possibilities, and conflates sex with gender. Condit also argued that this perspective ignores the impact rhetoric has in constructing gender and gender roles and the fact that most men (including white men) are also excluded from current power structures. Finally, she contended that this view may discourage women from seeing themselves as public speakers or advocates, which in turn would reinforce the notion of difference and entrench patriarchy, however it is defined. Frank (1997) echoed this last argument, adding that even if there are socialized differences, they simply constitute a reason for making sure more women are trained in these skills. In addition, Dow (1995) argued that the assumption of difference has the potential to undermine communication research because "we risk limiting our definitions, our audience, and our purposes" (p. 108). Dow further argued that such a view risks undermining progress and activism by making it more difficult for feminists to build coalitions.

Fulkerson (1996) directly confronted the idea that there is any measurable difference in the first place. He identified and reviewed the studies that have served as the underlying basis for most of the "difference feminist" position, noted significant problems with the earlier studies,

and concludes that there is "too little solid evidence" (p. 206) for difference claims. For example, Fulkerson noted that some studies reached comparative conclusions about differences between men and women despite only examining women. Fulkerson also notes that while the most recent and thorough studies find some differences in male and female communication patterns, they find little or no difference in the areas of persuasion or argument. Fulkerson explains that his 30 years of experience teaching composition courses that emphasize argument have demonstrated to him that women compose and deploy arguments just as well as men do (though he is quick to admit that his experience does not constitute a systematic study).

Debate is Coercive

Some scholars (Foss & Griffin, 1995; Gearhart, 1979; Trebilcot, 1988) have argued that argumentation is inherently coercive. Their claim is that argument, as a form of persuasion, is an attempt to change someone's actions or beliefs to align them with one's own, which is ethically comparable to forcing someone to act at gunpoint, differing only in degree and the particular tool used. Gearhart (1979) went so far as to say that "any intent to persuade is an act of violence" (p. 195). As an alternative to traditional argumentation and debate, Foss and Griffin (1995) suggested an *invitational rhetoric* based on sharing information and perspectives without making arguments or attempting to persuade others, and respecting all ideas equally.

In addition to the apparent performative contradiction manifested by their article's arguments against argument, there are a number of other problems with this position. First, their argument seems to rest on the assumption that persuasion can be used to manipulate people. As anyone who has ever successfully resisted a sales pitch or the influence of a television commercial can attest, persuasion is not always successful, even when it is intentional, subtle, and designed by professionals. Condit reinforced this argument, explaining:

> Recent audience studies indicate rather clearly that audiences have substantial power to resist messages with which they do not agree, constructing either negotiated or a resistive responses to those messages (Morley, 1980; Radway, 1984). Or most commonly, as selective perception theories have long indicated, audience members they simply refuse to listen. To call rhetoric or persuasion coercive is, therefore, to pay insufficient respect to those who are the receivers of messages. It is far harder to gain, hold, and convince an audience than the magic bullet model employed by difference feminists presupposes. (p. 107)

Second, Frank (1997) added that many accusations about the coercive function of debate seem to inaccurately conflate it with verbal aggression. The proponents of invitational rhetoric would probably counter that it is not just about the level of success of the manipulation, but the ethical implications as well. But even this claim is undermined by the fact that the vast majority of people do not see persuasion as coercive, even if it is directed at them and there is a clear intent to change their beliefs or behaviors. As Trebilcot (1988) admitted, persuasion is seen by some, including her friend Jacquelyn Zita, as an act of caring:

> Jacquelyn says that she experiences persuasion -- whether she is persuading or being persuaded -- as an act of caring, she emphasizes also that wimmin can choose not to be persuaded by those whose intention is to change them. She writes "I understand [persuasion] as an act of caring between equals in which I want to change another womon's beliefs, perceptions, and behaviors for reasons I can share with her in ways that do not violate her agency, responsibility or autonomy." (p. 11)

Critics of argumentation and debate (e.g., Foss, 2000, Hobbs et al., 2000) also often invoke the work of Deborah Tannen, particularly her book *The Argument Culture* (1999), to demonstrate the systematic harm caused by adversarial approaches to rhetoric. However, these invocations almost always oversimplify Tannen's position. Indeed, Tannen takes great pains in every chapter to make it clear that she does not inherently oppose argumentation and debate—she actually values them highly—instead, she is criticizing their systematic overuse. As Tannen (1999) explains, "I am not against criticism and opposition. After all, this book criticizes patterns I find dangerous and troubling. I object only when criticism and opposition become

automatic and exaggerated, and fly out of control…" (p. 130). As she indicates later in the book, "There are, however, many situations in which a debate is appropriate" (p. 353) and, most conclusively, "I see nothing wrong with teaching debate in a communication arts class" (p. 352).

Pursuing invitational rhetoric as an alternative to traditional argumentation and debate is problematic on a number of grounds. First, argumentation, debate, and persuasion are inevitable, as even Foss and Griffin (1995) admit. This inevitability means that it is imperative to continue to teach students about argument, rather than to pretend we can get along without it, both to make sure these approaches are used in an ethical and productive manner, and so that we can resist attempts by others to manipulate us.

Second, argument can improve agency and autonomy by improving enhancing the ability to benefit from good persuasive messages and resist damaging persuasive messages. Condit (1997) highlights the ability of a persuasive speaker to help people find their own voice:

> Eloquence well performed helps people understand their experiences in new ways and, because these new understandings are shared ones, it allows people to coordinate their behavior around these understandings.…Eloquent spokespersons thus helped others to give voice to their own interests by showing ways in which those interests might be re-articulated. (p. 107)

Third, hierarchy is not always bad. While arbitrary hierarchies have been the source of much of the oppression and destruction in human history, there are a great number of hierarchies that are both ethical and pragmatic. Foss and Griffin's own claim that domination and oppression are not as desirable as safety, freedom and respect is an example of establishing a good hierarchy. Foss and Griffin are not alone in having legitimate concerns about the imposition of arbitrary hierarchies, standards, or criteria. However, their concept of invitational rhetoric provides no way to train students in any kind of decision making, including standards for argument that would enable students to avoid and/or resist arbitrary hierarchies. If directed at

eliminating racism, sexism, or other forms of discrimination that tend to silence people or otherwise reduce the "conditions for safety" that concerned Foss and Griffin, persuasion seems to be a productive, not destructive force. As Condit (1997) contended, "intentions to change racists toward greater tolerance of others...seem substantially different…from intentions to change others to increase one's own influence and power" (p. 105).

A fourth problem with invitational rhetoric is that sometimes people are just wrong and they need to hear it. For example, sometimes their emotions can cloud their judgment and they need a friend to help them change their perspective in order to prevent them from engaging in self-destructive behavior. Another example is doctors scaring their patients about the condition of their lungs to help those patients to stop smoking. or to provide guidance to help patients achieve a goal that they have already set, such as improving their health. Sometimes the situation is pathological, as in the instance of alcoholics or drug addicts needing interventions and some "tough love" in order to break out of their addiction and restore their own autonomy and agency. The Foss-Griffin model also does not provide a means for teaching children not to do dangerous things, does not allow friends to give each other advice, and does not permit a mentor to help a graduate student avoid a misguided choice about which Ph.D. program best meets their needs. Finally, invitational rhetoric does not provide for solicited persuasion such as responding to questions. If a student asks a coach, "How can I improve my speed and endurance?" and the coach suggests, "You should try interval training," the coach has violated the tenets of invitational rhetoric.

Ideas must be tested and challenged. While Foss and Griffin may deny this, they engaged in the testing and challenging of ideas themselves, as demonstrated by their statements such as, "The goal of feminist scholarship is the eradication of the ideology of domination that

permeates Western culture" (p. 129). Literally thousands of men that think that having sex with a virgin cures AIDS and, as result, many of them rape young women to try to save themselves (Vickers, 2006). It is difficult to imagine how Foss and Griffin would justify non-interference in this instance, when education and persuasion could potentially fight ignorance, prevent coercion, and save thousands of lives. Ultimately, misguided or downright stupid ideas do not get challenged without persuasion; flawed and unjust systems do not get challenged without aggressive persuasion and activism. While there may be more than one right way to achieve certain goals, there are many ways that are inefficient, counterproductive, self-centered, or problematic in a host of other possible ways. To improve the chances that we will select, if not the best policy, then at least a good one, Tannen (1999) argued, "it is the responsibility of intellectuals to explore potential weaknesses in others' arguments, and of journalists to represent serious opposition when it exists" (p. 25). Condit (1997) bluntly provided the impact of abandoning activism and other persuasive projects designed to make the world a better place: "The need for human cooperation makes eloquence indispensable if humans as a species are to survive and prosper" (p. 106).

Suggested Alternatives to Current Approaches

Invitational Debate

Inspired by Foss and Griffin, Hobbs et al. (2000) argued that, with relatively minor changes, competitive debate could be made compatible with Foss and Griffin's ideals. They suggested a new model called *invitational debate* which requires teams to defend positions they believe in, rather than switching sides for every debate, and evaluates teams based on how well they cooperate with each other, rather than assessing which team makes the best arguments. In addition to being based on all three flawed assumptions discussed in the previous section, this

recommendation is based on problematic premises about how competitive debate works and is itself so internally inconsistent as to be unworkable.

There is no question that intercollegiate debate is competitive. However, there is a significant question as to whether or not it teaches debaters to approach the rest of their lives in a competitive manner. Invitational debate advocates seem to assume that students will automatically use any bad habits they develop in debates outside of their rounds. In so doing, they ignore both the results of actual studies and potential inoculation effects. For instance, studies of former debaters suggest that what is more likely to happen is that participants show more respect for others in discussions and are more likely to detect and counter posturing, intimidation, and other "tricks" not related to the substance of the discussion (Matlon & Keele, 1984). Studies of current and former debaters also demonstrate that participation increases argumentativeness scores but reduces verbal aggression scores. This alone indicates that current debate practice results in students who are more likely to respect the "conditions for safety"—an important goal of invitational rhetoric—than the population at large (Colbert, 1993).

Perhaps most importantly, Hobbs et al. (2000) ignore everything that happens in the debate activity outside of debate rounds, such as time spent doing research, team meetings, team strategy sessions, and heart-to-heart talks during long van rides. Most teams follow a more cooperative model when they are preparing for debates, as documented by Bauschard (1998). For example, during a team strategy session several debaters and coaches may contribute ideas, arguments, and strategies to answer an opponent's position. They may propose and shoot down a number of ideas, but since the team shares a common goal of winning debates in competition, they have an interest in contributing to the team discussion without trying to "win" the team discussion. This approach is consistent with the deliberative or cooperative argumentation

model offered by Makau (1990; Makau & Marty, 2001), an important theorist that the invitational debate proponents themselves cite.

While it is not entirely clear what their proposed format would look like, it is clear that many of the individual components Hobbs et al. (2000) propose simply are not compatible with each other or with the goals the authors wish to achieve. For example, they propose leaving the existing format and time limits in place, but then suggest eliminating penalties or any other coercive measures that judges might use. This is highly inconsistent on a number of levels. First, these authors seem to miss the fact that the format is "forced upon the participants" whether it changes or not. Second, the authors are probably correct that forcing anything upon the participants is inconsistent with the central tenet of invitational rhetoric; however, this just highlights the impossibility of their project, since any organized activity with rules, judges, and other competitive elements inevitably force things upon the participants. It also seems to confirm the fear that judges and participants trying to adhere to their model would do less to confront the abuses caused by those who refuse to respect their fellow participants.

Invitational debate advocates claimed that there would still be a topic that the affirmative still has to affirm and the negative still has to negate, but now both teams also have to do so in a manner that is consistent with their own beliefs and that reveals more about themselves to the other participants. First, these seem to be additional rules that "force" even more upon the participants. Second, it seems entirely likely that, in many debates, meeting all three of these criteria will be impossible: a debater may not be able to find an affirmative case consistent with their beliefs on every topic and a negative debater may hear a case they agree with. Third, as indicated earlier, some of the most important benefits that debaters gain from the activity, including the open-mindedness and respect for others that the invitational debate proponents

themselves value, are the result of being forced to research and defend not just both sides of the topic, but specifically arguments that the participants may not agree with.

Role Playing

Another alternative model for debate, advocated by Gordon Mitchell (2000) is role-playing. Mitchell designed this activity to engage students more deeply in the arguments they study, and to give them multiple perspectives on issues. A class engaged in a role-playing debate would be given a situation and then each member of the class would be assigned a character in the role-playing exercise and would have to generate arguments from the perspective of that character. In one example, a school is offered $1 million and free shoes by a major shoe company if all their students refrain from wearing competitors' apparel. Students were assigned roles such as shoe company representatives, the school's principal, and teachers, parents, and students with differing views on the deal.

This approach has obvious advantages over a lecture about corporate involvement in education, or even a class discussion of the issue, because it encourages students to get in character, requires students to do some of their own research and ensures some level of participation by everyone in the class, which would not necessarily happen in an informal class discussion or debate. However, this approach, if used alone, may fall short in some areas. Mitchell (2000) admits that while it guarantees some level of participation for everyone, some characters will necessarily be more active because of their position (e.g., the principal will have more to say and do than any given parent would). While this has the potential to expose students to different views, it does not ensure it. Students only have to research one character and for some positions (e.g., angry parent) an accurate portrayal may mean strong opinions without much support. This problem is exacerbated if the student happens to get a role that coincides with their existing views—they would not have to learn anything new. As a result, Mitchell

himself advocates that these activities complement, rather than replace, traditional argumentation and debate instruction.

Negotiation

Another alternative approach to traditional argumentation and debate training is offered by Williams and McGee (2000), who argue for a balance between competitive and cooperative argument. Their recommendation for achieving this aim is to add a unit on negotiation to a traditional argumentation and debate curriculum. They argue that negotiation requires a unique blend of competition and cooperation because both parties have both shared and competing interests. This too seems like an excellent supplement, but, as the authors admit, it requires prerequisite training in traditional argumentation and debate. Thus, like Mitchell's (2000) role-playing method, this approach is a supplement, rather than replacement to traditional debate training.

Cooperative Argument

The final alternative to competitive argumentation and debate training is best understood as cooperative approaches to debate. For example, Makau and Marty (2001) regard competitive argument as important but overused. As a result, they offer cooperative or deliberative argument as an often appropriate alternative to, but not absolute replacement for, adversarial argument and debate. For instance, their textbook provides a blend of traditional criteria for evaluating arguments (e.g., presumption, burden of proof, types of evidence, fallacies) and nontraditional considerations (e.g., group decision-making, personal decision-making, elements of functioning in a deliberative community).

In a similar vein, Fulkerson (1996) offers the "argument as partnership" metaphor as an alternative to the "argument-as-war" metaphor. He suggests assigning a "policy recommendation memorandum" and the "personally relevant" research paper as examples of assignments that

balance the need to test ideas with the desire to reduce adversarial argumentation. The policy memorandum requires students to present arguments on both sides of an issue, assess them, and reach a conclusion. The personally relevant research paper requires students to take a similar approach, but on an issue that they have a direct connection to or that has a direct impact on them.

Both of these approaches seem to provide excellent supplements to a traditional argumentation and debate curriculum, but neither would stand well on its own. As indicated earlier, competition helps motivate students and makes sure that they fully research and appreciate issues from multiple perspectives. In adopting either or both of these approaches, an instructor would be better off to precede them with more traditional argumentation and debate instruction. This is especially true of Fulkerson's suggested paper idea that focuses on an issue of personal relevance. This assignment would make an interesting and engaging supplemental assignment for students, but there are real advantages to exposing students to something that they are totally unfamiliar with. A topic that may not be personally relevant to them now may become so after they are exposed to it.

While none of these approaches are mutually exclusive, experience suggests that even basic instruction in traditional argumentation and debate is difficult to fit into a single course in a single semester. The trade-offs involved in attempting to fully engage all of these approaches in a single class might make such a move impossible or at least counterproductive. Perhaps the ideal pedagogical situation would be a two-course sequence that begins with a course in traditional argumentation and debate and follows with a course which includes negotiation, deliberative, and cooperative argument. Even if it was impossible to have a two-course sequence, a lot of the disadvantages to either approach could be minimized simply by making

students aware of the other contexts and possibilities. For instance, instructors could add a short unit to traditional argumentation and debate classes that emphasize goals and decision-making, suggest alternative formats, or even incorporate such a discussion into an existing unit on ethics. Deliberative or cooperative argument courses could add a unit on the importance of competition, both generally (as in the need to test arguments) and in specific contexts (such as a criminal trial). The instructor could also encourage students to "compete with themselves" if they are engaging in the kind of assignment that Fulkerson (1996) advocates.

In sum, approaches which include switch side debate are superior to approaches focusing exclusively on argument theory, the major criticisms of that approach are unwarranted, and while the approach can be augmented, it should not be replaced by any of the currently proposed alternatives. While the research suggests that full participation in competitive debate as an extracurricular or co-curricular activity will do more for students than can be achieved in the classroom, argumentation and debate courses which include elements of the competitive activity, especially student research, a switch-side format, and a substantial amount of practice, can still provide many benefits. Debate, whether in the classroom or as an extracurricular activity seems to be a good way to improve the critical thinking and decision-making skills discussed in Chapter 1.

CHAPTER 3
IMPROVING ARGUMENTATION AND DEBATE INSTRUCTION

Given the clear evidence that argumentation and debate improves critical thinking and decision-making ability, why is there a compelling need for more research in this area? There are two reasons: First, we should attempt to increase the number of students that benefit and the degree of benefit they develop, especially in the area of decision-making; and second, there are four limits to current approaches that should be addressed. Those four limits are: (a) the lack of integration of argument construction and decision-making elements, (b) the problem of students not internalizing and applying what they have learned, (c) insufficient attention to decision-making practice, and (d) the misperception that argumentation and debate is always adversarial. These needs should not be considered as failings, but as areas with the potential for substantial improvement.

Limits to Current Approaches

The first limit to traditional approaches to argumentation and debate instruction is that, while most textbooks seem to do an admirable job of teaching many of the individual components of critical thinking and decision making, Mitchell (1998) has argued that few of those texts teach students how to integrate what they have learned and how to use it outside of writing an argument assignment for class:

> [M]any textbooks introduce students to the importance of argumentation as the basis for citizenship in the opening chapter, move on to discussion of specific skills in the intervening chapters, and never return to the obvious broader question of how specific skills can be utilized to support efforts of participatory citizenship and democratic empowerment. Insofar as the argumentation curriculum does not forthrightly thematize the connection between skill-based learning and democratic empowerment, the prospect that students will fully develop strong senses of transformative political agency grows increasingly remote. (p. 44)

This integration becomes especially important in conjunction with other elements such as context and practice.

Second, while many (perhaps even most) debaters internalize some of what they have learned and thereby improve their decision making skills, not all of them do. There are many examples, especially at the high school level, where students manage to see debate as only a game, and not related to the real world (McGough, 1988), and so they do not apply the principles they learn to their own decision making. They view debate as a skill directed at others, not at oneself. Even worse, some students emerge from debate with the worst possible combination of superior argument construction and advocacy skills, but little in the way of ethics or critical self-awareness (Fine, 2001). While Fine and McGough were pointing to anecdotal examples, their observations are consistent with studies of critical thinking, which demonstrate that teaching various critical thinking components without teaching how to integrate and practice them fails to yield consistent gains in critical thinking ability (Tsui, 1998). Freire (2000) and Elder and Paul (2004) have warned us about the tendency for even those capable of some level of critical thinking to lapse into positions that reflect their ego or ideology. It is entirely possible for a student to learn how to construct strong arguments, to critically evaluate others' arguments and not evaluate their own views. Elder and Paul (2004) have also emphasized that critical thinking must be objective—it should not be driven by ego or ideology, and that it should be incremental and ongoing. Freire (2000) has made similar arguments, contending that constant self-reflection is necessary to ensure that people do not lock themselves into a "circle of certainty" where they are no longer open to new ideas.

Third, students may not fully realize the obvious benefits to learning argumentation and debate skills if they do not complement those skills with critical self-reflection and practice integrating those skills in a decision making context. Knowing theory is not the same as the ability to apply that theory in practice. This becomes clear if we consider preparation for soccer

or a similar sport. A proper diet, running, weight training, and practicing penalty kicks are all vital components of training to be good soccer players. However, no matter how good individuals get to be at the components, they cannot become good soccer players without actually playing soccer. This suggests that while students gain a lot from constructing arguments and participating in debates, they also need practice judging debates, evaluating complex problems, and making decisions.

Finally, debate may be misused or deployed in an inappropriate manner or in an inappropriate context. Tannen (1999) described this overuse of debate as *argument culture*:

> The argument culture urges us to approach the world—and the people in it—in an adversarial frame of mind. It rests on the assumption that opposition is the best way to get anything done: the best way to discuss an idea is to set up a debate; the best way to cover news is to find spokespeople who express the most extreme, polarized views and present them as "both sides"; the best way to settle disputes is litigation that pits one party against the other; the best way to begin an essay is to attack someone; and the best way to show you're really thinking is to criticize. (p. 3-4)

Tannen's point was not that debate is bad (she indicated that it is indispensable for decision making), but that binary, adversarial, agonistic debate is overused and often deployed when dialogue or discussion would be more appropriate. This concern seems to suggest that argumentation and debate instructional materials should address the following questions about context: When and where is debate appropriate? Is an adversarial approach justified in a particular situation, or should the approach be more cooperative and deliberative?

These concerns should not be construed as an argument that debate somehow fails to enhance critical thinking and decision-making abilities. Instead, this section demonstrates that, despite some level of success now, argumentation and debate instruction should be able to do an even better job of helping more students. The following section provides some suggestions for how these aims might be achieved.

Overcoming Current Limits

In order to address the issues outlined in the previous section, there are three components that research suggests should be included in argumentation and debate instruction. First, instructors should ensure that students are taught the importance of context for how they deploy their argumentation and debate skills. Second, instructors should explicitly teach decision-making skills, including the concept of criteria awareness. Third, instructors should do more to instill good habits through decision making practice. Understanding the distinction between argument construction and decision-making and ensuring that the latter receives adequate attention in instructional materials are critical elements for improvements in all of these areas.

Context

In order to reverse the trend toward argument culture and to help students realize that argument can be used as part of deliberation or cooperation, argumentation and debate instructional material should explicitly address the issue of context. Textbooks should not begin every exercise with the assumption that the student making the argument is correct or that the point of advancing an argument is to win. Textbooks should not assume that those involved in argument or debate are adversaries or that whatever opposition does exist is a binary one. There are a variety of examples of how this could be achieved. Makau and Marty (2001) have framed argument as part of deliberative decision-making and offered cooperative exercises to help reinforce that perspective. Tannen (1999) has suggested that even minor changes in the wording of textbooks, replacing the term *both sides* with the term *all sides* could have a major impact on reducing the misperception that argument is inherently adversarial.

Decision-making

Paul (1990) has described what he calls *strong sense* critical thinking, which requires more skill and deeper analysis than is measured by tests such as the Watson-Glaser Critical

Thinking Appraisal (WGCTA). The WGCTA and most other critical thinking tests measure students' ability to evaluate inferences and logical connections at the level of individual or small groups of statements. While such abilities are an indispensable prerequisite for decision making, they do not include other abilities that good decision makers must have, such as the ability to consider context, ethics, their own biases, or to evaluate larger, more complex positions incorporating a variety of arguments and support. Paul (1990) provided examples of what is involved:

> The moral, social, and political issues we face in everyday life are increasingly intellectually complex. Their settlement relies on circumstances and events that are interpreted in a variety of (often conflicting) ways. For example, should our government publish misinformation to mislead another government or group that it considers terrorist?…When, if ever, should the CIA attempt to overthrow a government it perceives as undemocratic? How can one distinguish "terrorists" from "freedom fighters"?...How should we balance off "dollar losses" against "safety gains"?…These are just a few of the many complex moral, political, and social issues that virtually all citizens must face. The response of the citizenry to such issues defines the moral character of society. These issues challenge our intellectual honesty, courage, integrity, empathy, and fair-mindedness.
>
> Given their complexity, they require perseverance and confidence in reason. People easily become cynical, intellectually lazy, or retreat into simplistic models of learning and the world they learned in school and see and hear on TV. (p. 203)

In order to help develop these abilities, argumentation and debate textbooks should discuss decision-making, not just argument construction. Textbooks should present complex problems to students, not just individual statements to be classified as a particular argument or fallacy type. Textbooks should, at a minimum, discuss how to judge a classroom debate, but should also discuss potential criteria with which to evaluate issues in different contexts, including personal contexts which encourage students to engage in critical self reflection.

Perhaps the most critical element is teaching students to be overtly aware of the criteria they use. Criteria awareness integrates the importance of context with decision-making. The point is that there is not one correct set of criteria for making decisions. One problem with

current efforts to teach decision-making by having students judge debates may be that, by not explicitly considering various sets of criteria, the instructor may imply that there is only one correct way to make decisions. Some criteria are appropriate in some circumstances and not in others. For example, someone judging a competitive policy debate round would need to enforce strict time limits, and would disallow new lines of argument initiated in the last speech (because the other team would have no chance to respond to them). These conventions are absolutely vital for the debates to be decided in a manner that is fair to both teams. If the person was trying to make an actual policy decision however, different criteria should be applied. While it would still make sense to give both sides (or multiple perspectives, if available) a chance to speak, it would make little sense to have time limits—the decision maker would want to hear all of the relevant arguments, not just those that could fit into six minutes or some other arbitrary time limit. Similarly, a judge in a competition should not consider their own expertise on an issue to decide a debate, because it would not be fair to consider anything other than what the teams themselves presented, since the whole point is to determine which team did the better debating. A person making a real policy decision would be remiss if they did not consider their own expertise. Such a real-world decision maker might also decide that, even after all the arguments were heard, they still need additional information, and they might do more research or seek out additional expert sources. Because students are generally not used to thinking explicitly about the criteria they use to make decisions, they are vulnerable to bias and using criteria that do not fit their situation.

Practice

Some argumentation and debate students already get a little practice applying their decision making skills by judging a debate or two in class. While this is better than no practice at all, it would be a mistake to assume that this limited level of practice will do very much. Even

if these students were able to watch a number of debates, unless this practice follows training designed to integrate argumentation concepts into a decision making framework and is in turn followed by discussion and feedback, it is unlikely to add much to their decision making ability.

While no empirical studies have yet been conducted on the relationship between judging and critical thinking ability, existing studies of critical thinking ability suggest that this approach should work. For example, Elder and Paul (1996) have found that practice is a prerequisite for moving through different stages of critical thinking, from basic to more advanced critical thinking skills. Additionally, Tsui's (1998) review of 62 studies on critical thinking revealed a number of findings about the characteristics of successful approaches to instilling critical thinking skills that support a greater emphasis on judging and decision making. According to Tsui, practices that were more successful at improving critical thinking ability went beyond just components to include integration, included repeating or practicing a critical thinking assignment, required application of skills in a specific context, and required a high level of engagement. Requiring students to apply their argumentation skills through repeated judging practice seems to fit these criteria.

Required Elements for a Comprehensive Approach to Decision-making

Argumentation and debate textbooks should address the issues of context, decision-making, and practice, as well as the more traditional elements of argument theory and argument construction. In this section, I will list a combination of traditional and newer elements that together should provide students with a more comprehensive approach to learning decision-making.

Argument Theory

Argumentation and debate textbooks need to include basic elements of argument theory. These are essential to improving the basic critical thinking skills involving assessing inferences

and support—the kinds of things measured by the most commonly used critical thinking assessments such as the WGCTA. They should include a section that defines argument in an academic sense and distinguishes it from vernacular uses of the term (e.g., a shouting match). Sections covering argument purposes, fields and/or spheres help students begin to understand context and serve as a precursor for learning more advanced skills like criteria awareness. The concept of argument fields holds that, while certain characteristics of the structure of argument remain the same no matter what, there are other characteristics which change from domain to domain. For example, scientific arguments require different evidence than public policy arguments, and legal arguments are different from religious arguments. The concept of argument spheres is similar, but calls attention to the differences between public, private, and technical arguments, rather than the differences between fields of study. A section on argument purpose would overtly deal with the idea that argument might be about winning, but might also be about finding the truth, finding the best policy options, or even educating an audience about an issue. Sections covering the Toulmin model, or other models of argument, along with fallacies and types and tests of arguments and support help students understand what to look for when constructing or evaluating individual units of argument.

Argument Construction Elements

While this dissertation argues that argument construction alone is insufficient, it is still an essential part of developing critical thinking skills, and is a prerequisite for developing argument evaluation and decision-making skills. Argument construction elements would include preliminary activities like invention, brainstorming, or topic analysis, as well as research and guidelines for how to organize individual arguments into larger positions. Sections on invention, brainstorming, or topic analysis cover how to generate arguments in a given area. Examples might include: common themes and differences in analyzing propositions of fact, value, policy;

thinking of relevant arguments; thinking of what the focus of a given topic will be, and planning for research. A section covering the importance of research and how to research helps students to find supporting material and encourages them to improve their knowledge of their debate topic. Sections covering argument construction should also address how to assemble and/or organize material to effectively support or respond to a position. Examples might include: how to organize arguments for an editorial, how to outline a speech in favor of a given topic, or how to construct an affirmative case, disadvantages, and counterplans for a policy debate.

Debate, Types of Debate, and Practice

As indicated earlier in this chapter and chapter 2, practice is vital and research has shown that approaches that more closely follow competitive argumentation and debate practice are more successful at improving critical thinking skills. A good argumentation and debate textbook should provide students with one or more formats for debate. They should also provide exercises for practicing argument construction, argument presentation, and refutation.

Audience Analysis and Judging Paradigms

Audience analysis and judging paradigms are designed to help speakers think about specific characteristics and views their audience may have and to adapt accordingly. This kind of thinking is a useful precursor for thinking about different points of view, different contexts, thinking reflexively, and considering criteria that might be used in decision-making. Audience analysis is the idea that different audiences have different characteristics, and that the speaker may have to adapt their arguments, their support, or their style of presentation to effectively communicate with those different audiences. Examples of this element might include: how to survey and audience, or a description of the differences between expert judges and a public audience. Judging paradigms are sets of criteria for evaluating debates that are the result of different ways debate judges see their role. For example, some judges see themselves as make-

believe policymakers and use criteria that emphasize the content of the arguments over delivery. Other judges see the debate as a forensic contest, and might count delivery and decorum as much as they count the quality of the arguments.

Ethics

Earlier in this chapter, I indicated the importance of ethics for both speaking and decision-making. Argumentation and debate textbooks should cover more than just the issue of plagiarism. They should cover ethics on at least three levels: ethical practices during a debate, ethical criteria for making decisions, and ethical practices in different contexts. A discussion of ethical practices during a debate might include examples such as: the unethical use of evidence (e.g., taking evidence out of context, fabricating or distorting evidence), unethical practices (e.g., lying), or unethical goals (e.g., a speech encouraging hatred of a group). A section on ethical decision-making criteria would indicate the importance of including ethical considerations as part of a decision, and provide examples of what might and might not be appropriate in different situations. Ethical practices in different contexts would identify how responsibilities change in different situations, and might overlap with both ethical debate practices and ethical decision-making criteria.

Decision-making Elements

Argumentation and debate textbooks should include sections explicitly devoted to the concept of decision-making. Ideally, such sections would not be limited to judging classroom or competition debates, but would include decision-making in different contexts. Executive or administrative decision-making (making decisions from a position of authority and/or making decisions that affect other people), cooperative or deliberative decision-making (making decisions for a group as part of the group), and personal decision-making (making decisions that just affect you) are similar in some respects, but radically different in others. It would be helpful

to students if textbooks discuss those similarities and differences. A section covering suggested guidelines for making decisions in one or more contexts are helpful for getting students to think about criteria. A section covering decision-making procedure helps provide a systematic deep structure to help the decision-making ability transfer to other contexts. The section that includes how to resolve different scenarios helps students apply criteria to the final decision. The textbook should provide examples to help tie the previous three elements together, and exercises specific to decision-making help ensure that students practice these skills. It would also be useful to include a section that encourages tolerance of uncertainty and criteria awareness.

This Study

Having established the elements that argumentation and debate textbooks need to cover to provide comprehensive instruction in decision-making, the question becomes: Do current textbooks address these areas? If so, then there may be no need to change them. If not, then current texts may need to be replaced, amended, or supplemented with new material. Unfortunately, there have been very few studies of argumentation and debate textbooks at all and none which attempt to assess the areas in question. The following chapter will outline the approach this analysis took to answer that question.

CHAPTER 4
METHOD

This study employs a content analysis to determine the presence or absence of 50 elements that serve as indicators of various approaches to and facets of argumentation and debate instruction. The preceding chapter demonstrated that argumentation and debate instructional materials should ideally contain elements of argument theory, competitive debate (including specific elements which mirror practices in policy debate competition), discussions of argument in other contexts, and explicit decision-making elements. This chapter first justifies content analysis as a legitimate and productive research approach, both generally and in the specific context of this study. Second, this chapter provides a detailed explanation of how this analysis measured the previously mentioned elements, including a description of the materials and procedures used, as well as justifying those materials and procedures.

Rationale for Content Analysis

The purpose of this project is to analyze several aspects of the content of argumentation and debate classes to determine if certain elements (e.g., units on argument construction and decision-making) are present. Given that answering these questions involves analyzing the content of the instructional materials, content analysis seems to be the most appropriate method. While content analysis is not designed to directly measure the quality or effectiveness of the texts studied, if used properly, it can indicate the presence (or absence) and extent of elements that may be *signs* of quality or effectiveness, based on what previous studies or other literature have established about those elements.

Content analysis can be defined as "[t]he systematic assignment of communication content categories according to rules and the analysis of relationships involving those categories" (Riffe, Lacy & Fico, 2005, p. 23). Content analysis is a well-established method for analyzing

texts and is especially appropriate for this type of study, since it is ultimately about the uses to which argumentation and debate textbooks are put and whether or not they include the elements they need to achieve their stated goals. As Krippendorff (2004a) indicates:

> Content analysis is potentially one of the most important research techniques in the social sciences. The content analyst views data as representations not of physical evidence but of texts, images, and expressions that are created to be seen, read, interpreted, and acted on for their meanings, and must therefore be analyzed with such uses in mind. Analyzing texts in the context of their uses distinguishes content analysis from other methods of inquiry. (p. xiii)

The preceding chapters have provided quantitative, qualitative, and critical data and analysis to justify the inclusion of certain debate practices within argument courses and textbooks; content analysis will be used to test for the presence of these elements. Content analysis has evolved from strictly quantitative analyses of newspapers into a variety of qualitative approaches such as rhetorical analysis (Krippendorff, 2004a). Even scholars who are uncomfortable with qualitative studies being labeled as content analysis agree that triangulation (a combination of approaches) can potentially offer more insight than a single approach (Neuendorf, 2002). Additionally, Schiappa (1995) argues that one approach can facilitate or set up another approach to the same issue. In advocating interdisciplinary approaches to study, he quips that "too many rhetorical scholars are allergic to counting. Content analysis can be a useful systematic tool that facilitates rhetorical criticism" (p. 143). For example, in the context of this study, while there is a wealth of critical literature about the problems with approaching argument exclusively in a win-loss context (e.g. Makau & Marty, 2001) and qualitative assessments that certain practices can help avoid seeing argument exclusively in that context (e.g. Johnson & Johnson, 1988), it is useful to apply a more quantitative content analysis to determine if those practices are advocated or even mentioned in current argumentation and debate textbooks. The presence, absence, or frequency of certain terms may also be a sign of specific teaching

strategies that I am looking for, or maybe a sign of the validity of some critiques of argumentation and debate instruction. For example, if the study found that the word "ethics" was not used in any of the textbooks, it would be a sign that a discussion of ethics was probably not an important part of most argumentation and debate classes.

One example of this blend of approaches is Sommerfeldt's (2007) analysis of email alerts used successfully by social movement organizations of the Christian Right. He starts with categories from more qualitative rhetorical work—Burke's concept of identification—and uses them to develop a coding scheme for a quantitative analysis of email alert content. Sommerfeldt's conclusion that the use of various forms of identification contributed to the success of relatively small organizations gaining a lot of influence at the highest levels of government suggests that quantitative studies can serve to confirm qualitatively-derived concepts, which parallels the intent of my study—quantitatively testing critical analyses of the content of argumentation and debate texts.

Content analysis has also been applied specifically to the study of the content of communication textbooks. For example, Brunner (2006) analyzed representations of women in public relations textbooks to determine if the content of those texts have a potential impact on disparities between men and women in various public relations jobs. Her units of analysis were pictures and profiles of professionals in the field included in the textbooks. Webb and Thompson-Hayes (2002) analyzed interpersonal communication textbooks to determine what was being taught in those classes and what similarities and differences existed in terms of the material covered. They looked at the presence or absence of discussions of several common theories in their field. Webb, et al. (2004) also analyzed differences in textbooks designed for family communication classes. This time their unit of analysis was the presence or absence of

different subject areas within the field of family communication. Hess and Pearson (1991) examined the 12 most popular public speaking textbooks, using the presence or absence of 24 principles across five categories and the amount of space devoted to each of those principles. They determined that a popular criticism of the textbooks (i.e., that they gave insufficient attention to the question of ethics) was a legitimate concern. Most recently, Pearson, et al. (2007) analyzed the 10 most popular public speaking textbooks to determine their level of attention to the issue of communication apprehension. While the study looked for the presence/absence of a number of key terms, it looked for those terms only as signs of five different approaches to dealing with communication apprehension. Similar to my study, an important focus of Pearson et al.'s content analysis was to determine if the textbooks contained the material they needed to address their stated goals. Also similar to my study, their content analysis did not directly measure the effectiveness of particular textbooks but could point to signs of effective teaching methods, based on what other research had discovered about the methods they found present.

Sample

Rationale for Textbooks

The study focuses on textbooks because they are a critical part of the learning process, and, in most cases, reflect the teaching strategies adopted by the instructor. They have a significant impact on course structure, classroom activities, and homework assignments. They often provide a student's first exposure to a subject, and provide a frame or screen for a student's understanding of a subject (Brunner, 2006). While textbook content does not necessarily reflect the material covered in a classroom, coverage of an issue in a textbook makes it more likely to be covered in class, even if instructors do not follow their text directly. Many instructors select a text first and then develop their syllabus around it. A preliminary review of online syllabi seems

to support this correlation, with class schedules often using terms similar to chapter titles to describe the lectures or activities in class on a given day.[1]

Teachers are also unlikely to cover a concept that they have never heard about. An important part of this study is simply to determine the presence or absence of lessons about decision-making and criteria awareness in current textbooks. If this material is mostly or completely absent, then it is a relatively safe assumption that the teaching strategies I am looking for are not present or, at a minimum, that there are few resources for instructors that wish to include such elements. If the elements are present in some textbooks, but not others, it may suggest which textbooks instructors should choose.

Sample Description

Since the purpose of the study is to determine as much as possible about what options are available for argumentation and debate classrooms, the sample was designed to be as comprehensive a collection of argumentation and debate textbooks as possible. A variety of sources was consulted to ensure that the list of argumentation and debate textbooks was as exhaustive as possible. Data from Neilsen Bookscan served as the starting point for building the sample. Nielsen Bookscan data includes 75% of all book sales in the United States (Neilsen, 2007). All books with "argument," "argumentation," or "debate" in their titles or keywords in the Language Arts area with sales of 60 units or more were included.[2] Two surveys of Amazon.com sales from September 2008 and February 2009 were used to expand the sample. Amazon.com is the largest book retailer by sales in the United States (Rosenthal, 2009). These two surveys included any textbooks in the area of communication with "argument," "argumentation," or "debate" in their titles or keywords. Lists of publications from known publishers of debate textbooks (such as International Debate Education Association (IDEA), Cengage Learning, and Paradigm Research) were reviewed to determine if they had additional

textbooks not yet on the list. Additional web searches were conducted using the Google search engine to identify any argumentation and debate books or publishers of argumentation and debate books not already included. I then reviewed texts not available through mainstream bookstores, but advertised in widely used debate resources (such as Rostrum and PlanetDebate). Finally, I included online textbooks from mainstream sources: two set up as web pages designed primarily to be used online, and two in Portable Document Format (PDF) that could be viewed online or printed to produce a conventional paper textbook. In each case, a broad net was cast, and all possibly relevant books were left on the list for the sample until a review of the book's description or table of contents indicated that it was not relevant for an argumentation and debate class.

From the initial sample, books were eliminated only if they:

- were out of print or no longer available
- were older editions of books with more recent editions already included in the survey
- were non-textbooks, or books that would clearly be inappropriate for classroom use (such as self-help books on how to win arguments)
- focused exclusively on formal logic
- focused exclusively on a specialized or technical field of argumentation, or were using the term "argument" in a clearly different context (such as "arguments" in computer algorithms)
- focused on specific elements of argumentation theory, as might be appropriate for research, but not for an introductory course in argumentation and debate (such as a book devoted entirely to one type of fallacy)

- had an explicit statement that the purpose of the book was something other than to teach argumentation and/or debate

While there is no guarantee that every argumentation and debate textbook currently in use is included in the main sample, the sample should nevertheless be reasonably comprehensive and should be representative of what is being used in argumentation and debate classrooms at the middle school, high school, and college level.

Rationale for Communication Focus

As indicated above, the study focuses on textbooks that are likely to be used in communication and language arts. While many of the books included are also used in other contexts (e.g., argument theory textbooks that are used in philosophy classrooms), the study was not designed to be a comprehensive evaluation of every textbook related to critical thinking and decision-making. Such a sample would be prohibitively large, given that most college classes claim to have at least some critical thinking element. Such a study is also unlikely to be productive given that most other classes, even though they will cover some elements of argument theory, are primarily focused on other issues.

A review of a number of public-policy textbooks indicated that while they are more likely to focus on decision-making than argumentation and debate textbooks, they tend to do so at a very general/macro level, leaving huge gaps that argumentation and debate texts must fill. For instance, they may provide an overall framework or a series of steps for making a decision, without providing students suggested criteria for getting through some of the steps. For example, a common framework provided in public-policy texts (e.g., Bardach, 2009; Munger, 2000; Shafritz & Russell, 1997) includes variations on steps such as: identify the problem; determine all available courses of action; select the best policy from those available; implement the policy; and evaluate the policy. While this framework is useful (especially since it includes a reflexive

element and reminds students that things do not just end when the decision is made), it begs many questions: How can we find out more about existing problems? Where do we look to help ourselves discover the range of possible solutions? How do we select the best policy from those available? What criteria should we use? Do those criteria change depending on the context? What issues do we have to keep in mind during implementation? What criteria do we use to evaluate the policy after implementation? Is it the same set of criteria that was used to decide between possible policies initially? These "micro" level questions are generally not addressed in public policy and political science texts, but are addressed in argumentation and debate texts, as the discussion in Chapter 2 explains. While it is possible that some of these elements could be taught in public-policy and/or political science, it really is not their field and there are probably few scholars in the area with an interest in addressing it to the extent that communication scholars already have.

Philosophy textbooks on argument and critical thinking tend to focus on formal logic and proofs (e.g., Bonevac, 1990; Cederblom & Paulsen, 2005; Copi & Cohen, 2008; Damer, 2008; Gensler, 2010; Hurley, 2008; Walton, 2008). While such an approach is very useful in certain contexts, it is generally difficult to apply in decision-making situations. While some authors have provided extensive guidelines for "translating" everyday decisions and/or everyday arguments into proofs, such translations can be time-consuming and, because they deal with the same uncertainties and probabilities that less formal approaches have to deal with, they do not necessarily provide better outcomes despite the extra effort they require.

Business and economic textbooks that deal with decision-making (e.g., Ingram & Albright, 2006; Kirkwood, 1996) focus almost exclusively on specific types of economic cost-benefit analyses such as how to use financial accounting data for making decisions. Textbooks in

this field tend to approach even non-economic decisions, including questions of management or leadership, as units of cost and benefit (see e.g., Hoch & Kunreuther, 2001; Welch 2001) Again, while this is useful to students in those situations it has limited general application.

Political science and Psychology textbooks tend to focus descriptively rather than prescriptively on how decisions are made. Psychology texts tend to explore how individuals and/or small groups make decisions (e.g., March, 1994; Plous, 1993; Tavris & Aronson, 2007; Weiss & Weiss, 2008), while political science texts tend to explore how large groups, interest groups, publics, national groups, and ethnic groups make decisions (e.g., Caplan, 2008; Lau & Redlawsk, 2006; Lewis-Beck, Jacoby, Norpoth & Weisberg, 2008). While these texts are useful for identifying decision-making dynamics and problems with decision-making, they generally do not offer criteria for making good decisions or suggestions for improving critical thinking and decision-making ability.

Communication textbooks are explicitly dealing with the issues raised in Chapter 1 now and, as indicated in Chapter 2, dealing with them fairly effectively, according to an extensive body of theoretical literature and empirical studies. Textbooks in other fields are less likely to comprehensively address argument evaluation and decision-making. Keith (2007) and Makau and Marty (2001) regard communication generally and argument specifically as central to deliberation, and debate has historically been seen as central to civic engagement (Keith, 2007). Textbooks in other fields are less likely to comprehensively address argument evaluation and decision-making. As a result, this study focuses on argumentation and debate textbooks in the area of communication and/or language arts.

Coding

Code Generation and Testing

The process for generating code for the study in part resembles inductive procedures described by Strauss (1987), which includes deriving categories from the material being studied, rather than applying previously established and tested codes. While this study stops short of what Strauss would describe as grounded theory, the initial steps used for generating codes are similar. This was necessary because, as indicated previously, there were no previous content analyses in this area and thus no existing codes to work with at all, much less specialized codes for decision-making instruction. I initially scanned argumentation and debate textbooks from both the sample and the pool of books for code testing to generate a list of elements the books contained, whether or not they were related to the study. I then sorted these elements into different categories, according to multiple sorting schemes, including ideas drawn from one of my previous papers (Butt, 2009). Finally, I identified theoretical concepts from other literature (discussed in Chapter 3), and associated specific elements and practices with relevant theory elements and pedagogical goals (also described in Chapter 3).

Code sheets were designed to identify the presence or absence of any elements relevant to the focus of the study. The coding instructions and element definitions were written to ensure that specific concepts were highlighted and received a specific level of attention in the text before they would be coded as present. To test the coding instructions and definitions, I assembled a pool of argumentation and debate textbooks that are no longer currently available. For early tests, textbooks from a wide range of dates (approximately mid-1960s to early 2000s) were used. Because some of the older texts used very different terminology, and because many concepts in argument theory have developed extensively over the last 50 years, the coders

struggled to translate what they saw in the older textbooks into the elements listed in the code book. As a result, textbooks from the mid-1980s to early 2000s were used for subsequent testing.

The first version of the code sheet included 102 elements and required coders to indicate the level of attention to each element (e.g., none, minor section, major section). Two undergraduate coders with debate experience and I used this version to code four textbooks each. Intercoder reliability was predictably low for this first test. Feedback from the coders and my own experience in attempting to code the books was used to adjust which elements were included and to clarify both code definitions and coding instructions. The code sheets were reduced in length and they were split into a general set of elements and an anticipated set of follow-up elements specific to decision-making.

The second version of the code sheets included 25 elements and asked only for *presence* (1) or *absence* (0) for each element. This change was made because early tests demonstrated that there was not much variability in the amount of attention provided to a given element between textbooks. For certain elements, either an entire chapter was devoted to them, or they were not present at all. For other elements, they received more than a page of attention or none at all. It was rare that an element received a paragraph or two in one textbook and a full chapter in another. The level required for presence or absence (e.g., one page or one chapter) was identified in the definition for each element and instructions for measuring one page or one chapter was provided in the coding instructions. The coders and I applied this version to the test sample of 20 textbooks. In addition, I applied this version to the full sample of textbooks used in the study, in the hope of anticipating potential problems in applying the codes to textbooks outside of the test group. Some elements achieved a high level of reliability, others did not. Reliability scores improved, but were not high enough to proceed to the main sample. Again, I used feedback from

the coders and my own experience to adjust which elements were included and to clarify both code definitions and coding instructions.

A third version with 33 elements was designed. At this point, two graduate student coders with experience teaching argumentation and debate classes became available. The 33-element version was applied by the graduate coders, the undergraduate coders and me to 10 textbooks from the test pool. Reliability scores with the undergraduate coders improved, but were not high enough to be considered sufficient. Reliability with the two graduate coders was much higher than with the undergraduate coders, despite significantly less training.

In an attempt to address some of the problems the undergraduate coders were facing, a faculty expert in content analysis suggested that reducing the number of elements might reduce coder fatigue and improve reliability scores. The original idea of one code sheet and one follow-up would be replaced with a series of code sheets. A general code sheet with just a few general elements would be followed up by additional sheets with just a few elements that each focused on a particular area. I designed and tested a fourth version of the code sheet with 12 elements, but this version did not seem to significantly reduce the amount of time spent per code sheet or coder fatigue and actually increased the amount of time spent coding the textbooks in some cases. Despite the fact that the elements on this sheet were larger and more general concepts, which would seem to require less time, coding for them actually required looking for specific elements first and determining if they fit into the general categories, meaning that the same amount of searching required for the longer code sheets was still necessary for the shorter sheets, with an added step. As a result, the 12 element sheets were discarded.

The graduate coders, undergraduate coders and I tested a final version of the general code sheet with 27 elements. This version was determined to be highly reliable for the graduate coders

and borderline reliable for the undergraduate coders. I decided to proceed with the graduate coders for the purpose of collecting data for the study, but continued to collect data from the undergraduate coders for the purpose of comparison and as a potential basis for future research on coding methodology. The final version of the general code book is included as Appendix C. The final version of the general code sheet is included as Appendix D.

I then designed a follow-up code sheet and addendum to the codebook focusing exclusively on 23 specific elements of argument evaluation and decision-making. I tested this sheet and codebook on 20 test books. After minor modifications, the two graduate coders and I tested the final version (still with 23 elements) and determined it to be reliable. The final version of the evaluation/decision-making code book is included as Appendix E. The final version of the evaluation/decision-making code sheet is included as Appendix F.

Codes

The textbooks were coded for 50 different elements, with general elements on the first code sheet and elements specific to judging and decision-making on the second code sheet. The first sheet had 27 elements, including: argument theory elements (Definition of Argument, Argument Fields/Spheres, Argument Purposes, Toulmin Model, Other Models, Types/Tests of Argument, Fallacies, Types/Tests of Evidence/Support); general elements (Glossary, Discussion/Exercises/Activities); ethics (including plagiarism); argument construction elements (Invention/Brainstorming/Topic analysis, Research, Argument Construction, Refutation); the approach to argumentation and debate (Argumentative Writing, Policy Debate, Value Debate, Parliamentary Debate, Other types); audience analysis; and judging (paradigms, how to judge, principles or criteria for judging).

The second sheet had 23 elements including: types of decision-making (Judging in Classroom or Competition, Attempt to translate Judging into other contexts, Decision-making

with no specific context, Decision-making in an Executive/Administrative context, Decision-making in a Cooperative/Deliberative context, Decision-making in a Personal context, Decision-making in other contexts); general decision-making elements (Guidelines, Procedure, "Weighing" issues/Scenario resolution, Examples, Exercises specific to decision-making); and specific decision-making elements (Tolerance of Uncertainty/Ambiguity, Criteria Awareness, Ethical criteria, Cost-Benefit Analysis, Listening/Note taking/Flowing, Presumption/Burden of proof, Rules/Format, Stock Issues, Disadvantages, Counterplans, Critical Theory/Kritiks, Attempt to translate specific elements, Research/Personal knowledge).

Coders

As indicated in the previous section, two coders with experience both coaching competitive debate and teaching an argumentation and debate class were employed for final coding. They were provided with a code book, code sheets, and training, and practiced coding on books from the testing pool as testing for intercoder reliability. I included my own results, not so much as another level of intercoder reliability, as to confirm that the coders interpreted the code definitions in the way I intended, and thus in a manner consistent with the theory that the codes were designed to represent (as outlined in Chapter 3).

Krippendorff (2004a & 2004b) admonishes that the use of expert coders limits the external validity of the content analysis and argues that coders must be interchangeable, common, and not overly trained or results will not be generalizable. This of course assumes that the intent of the study is to be generalizable to the general public. Mook (1983), however, demonstrates that external validity is not always necessary or even appropriate, and the method should be appropriate to the intent of the study. Mook points out that sometimes the intent of a study is to demonstrate an exception to a general rule or to provide results that may be useful only to a specific group. Along these lines, Mintz, Redd, & Vedlitz (2006) conducted a study

specific to decision-making which indicated that experts make decisions differently than nonexperts. Their study demonstrated that research in political science, military affairs, and international relations that use experiments involving students ultimately produce results that may not be helpful to the experts that would actually use and benefit from the results.

The level of qualifications required for the coders is appropriate for this study, given that the results are designed to describe argumentation and debate textbooks (not the population at large) and be used by other argumentation and debate instructors (again, not the population at large, though hopefully those instructors will apply the results to a larger audience). This also means that there is still a large pool of capable coders, since almost anyone in the target audience for the study would have the requisite qualifications to replicate it. The bottom line is that I can test the theory and answer the research question without the level of external validity that the use of expert coders precludes.

Furthermore, training previously inexperienced coders to recognize all of the terms involved in this study would require an unreasonable amount of time. It takes students a full semester to learn the basics of argumentation and debate theory in a class on the subject, and this would provide them with less than one third of the required level of expertise. Additionally, even Krippendorff admits that it is important for coders to have the requisite expertise to code properly given the context of the analysis. The argument theory involved requires a level of nuance that lay coders simply cannot provide. Finally, even if lay coders were used, during the course of their training the coders would ultimately become, by necessity, experts anyway, thus illustrating the futility of this criterion.

As indicated in the previous section, testing confirmed the utility of expert coders. The undergraduate students were helpful in developing codes and generating clear definitions of

terms and were able to code consistently and at a high level of reliability for many of the elements, especially those regarding basic argument theory and debate practice. However, they could not accurately or consistently code elements that required knowledge of facets of argumentation theory that are not currently widely taught or elements related to debate pedagogy, even after multiple waves of training and practice. In comparison, the experienced coders could code the same elements consistently even without extensive training.

The purpose of this study is not to determine media effects or measure general characteristics of human behavior. As such, it would be inappropriate to limit the elements to codes and code definitions that would be universally understood. In part, the point of the study is that some of these elements do not get the exposure they should. As such, the inability for lay coders to locate some of these concepts would be a self-fulfilling prophecy, not an adequate test of my claim. Thus, the only reasonable way to find disconfirming evidence and conduct a rigorous study is through the use of expert coders.

Coding procedure

Each coder and the researcher were provided with code books and 73 code sheets pre-printed with the coder number, book title, and author names. Coders were provided with books in groups of 10 or 20 at a time (though one group would have an additional 3 books) until they completed coding the entire sample. Coders circled "1" or "0" to indicate the presence or absence, respectively, of each element. Results were recorded individually for each coder and then were compiled into a master results list in a spreadsheet. The researcher's own scores were used only to resolve ties in the event that the two coders disagreed.

Inter-coder reliability

Lombard, Snyder-Duch & Bracken (2002) have provided a list of suggestions for improving the assessment and reporting of intercoder reliability in communication research and I

have attempted to follow their guidelines as closely as possible, especially with regard to transparency and the use of multiple measures of reliability. Each coder reviewed all of the textbooks in the sample and reliability was measured for all coders and all elements on all of the books in the sample. Inter-coder reliability was tested for each element using percent agreement, Cohen's Kappa (κ), and Krippendorff's Alpha (α). Reliability was calculated using Recal, a web-based reliability calculator that simultaneously reports multiple reliability measures (Freelon, 2009). The overall intercoder reliability results for the general elements are reported in Table 4.1, and for the decision-making elements in Table 4.2. The full set of pairwise calculations for both percent agreement and for Cohen's Kappa for both the general and decision-making elements are found in Appendix G in Tables G1 through G4.

The data were determined to be reliable for all elements. Based on percent agreement, reliability scores ranged from 91.78% to 100%. The lowest average reliability score was 93.61%, and the lowest pairwise score was 91.78%, both on element #11 (*Other Ethics*). Scores for Cohen's Kappa and Krippendorff's Alpha were almost universally high for the general elements, but varied from perfect to zero to "undefined" for the decision-making elements. As I explain below, the variation in these latter measures probably should not detract from the perception of reliability established by the percent agreement scores, given the type of data involved and the procedural safeguards that were employed.

Multiple measures of intercoder reliability were used to provide a better overall picture of the level of reliability. Using percent agreement alone fails to take into account the possibility of agreement by chance, which is relatively high in a study such as this one where coders are only looking for presence/absence and thus would be 50% likely to agree with each other on how to code any given element, even if they were just flipping coins rather than using the code

definitions. However, Kappa and Alpha have their own problems when used for a study, such as this one, that includes elements with little or no variation in their scores. Because they base expected agreement on distribution, rather than probability alone, they have the potential to produce arguably misleading results for elements with little variation. For example, this study determined six elements of decision-making were not present in any of the books, so the expected and observed agreement are the same, resulting in an intercoder reliability rating of zero. Krippendorff (2004b) contends that there is good reason for this result and that some level of variability in the responses is necessary to check against such problems:

> Most striking and often mystifying to those who hold onto the percent agreement conception of reliability is the case in which all coders use one and the same category for all units of analysis, yielding 100% agreement. Such data can be obtained by broken instruments or by coders who fell asleep or agreed in advance of the coding effort to make their task easy. (p. 425)

This study does not seem to be susceptible to the potential problems that Krippendorff envisions for a number of reasons. First, while there is little variability on some elements, there is a high level of variability on others. Second, reliability for both coders is also being checked against the researcher. Third, discussions with--and especially unprompted questions from--the coders suggested that they were doing everything in their power to code accurately and consistently and that they had an understanding of the code definitions. Fourth, as indicated previously, the other coders were coaches and argumentation and debate instructors who understand the stakes involved from an ethical perspective and understand that they only benefit from the results of the study if they are accurate. Finally, the two coders had no contact with each other. One coder wished to remain anonymous and so was known only to the researcher, making collusion with the other coder impossible.

Furthermore, while Krippendorff's scenario may seem to make sense in some contexts, once we assume the possibility of collusion, all bets are off, even if we follow his proposed procedures for calculating intercoder reliability. Once we assume that the researcher or coders are willing to cheat, it does not matter how much variability there is in the coding system; they could just copy each other or the researcher. Replication of the study serves as a check against this, but this is true whether one uses Krippendorff's method or not. On face, his contention that agreement on 72 *absents* and 1 *present* results in perfect reliability while agreement on 73 *absents* results in "unreliable data" makes little sense, especially taken in the context of the overall reliability of the coding instrument. This is why Lombard, Snyder-Duch & Bracken (2002) call for the inclusion of multiple measures, so that a better overall picture is generated. If the Kappa and Alpha scores had been low for the elements with high variability as well as the elements with low variability, it would have demonstrated problems that the percent agreement scores alone would not have revealed, but that was not the case. Conversely, if Kappa and Alpha were the only criteria, obviously useful data on several of the elements would have been unnecessarily rejected. As such, despite Krippendorff's objections, I would contend that this study has produced useful and reliable data. The results from this analysis are provided and discussed in Chapter 5.

Table 4.1 Reliability for General Elements

#	Element	Average Pairwise Percent Agreement (%)	Average Pairwise Cohen's Kappa (κ)	Average Pairwise Krippendorff's Alpha (α)
1.	Definition of Argument	96.35%	0.927	0.927
2.	Argument Fields/Spheres	98.17%	0.895	0.895
3.	Argument Purposes	95.43%	0.853	0.853
4.	Toulmin Model	100%	1	1
5.	Other Models	95.43%	0.627	0.644
6.	Types/Tests of Argument	98.17%	0.948	0.948
7.	Fallacies	100%	1	1
8.	Types/Tests of Evidence/Support	97.26%	0.925	0.926
9.	Argument Theory	99.09%	0.971	0.971
10.	Plagiarism	99.09%	0.976	0.976
11.	Other Ethics	93.61%	0.861	0.861
12.	Glossary	100%	1	1
13.	Discussion/Exercises/Activities	100%	1	1
14.	Invention/…/Topic Analysis	96.35%	0.902	0.902
15.	Research	100%	1	1
16.	Argument Construction	95.43%	0.79	0.79
17.	Refutation	95.43%	0.874	0.874
18.	Argumentative Writing	99.09%	0.981	0.981
19.	Debate (any kind)	100%	1	1

#	Element	Average Pairwise Percent Agreement (%)	Average Pairwise Cohen's Kappa (κ)	Average Pairwise Krippendorff's Alpha (α)
20.	Policy Debate	99.09%	0.977	0.977
21.	Value Debate	99.09%	0.95	0.952
22.	Parliamentary Debate	100%	1	1
23.	Other (Identify):	100%	1	1
24.	Audience Analysis	98.17%	0.962	0.962
25.	Judging/DM—Paradigms	99.09%	0.944	0.945
26.	Judging/DM—Process/How to	98.17%	0.923	0.923
27.	Judging/DM—Principles/Criteria	96.35%	0.875	0.876

Table 4.2 Reliability for Decision-making Elements

#	Element	Average Pairwise Percent Agreement (%)	Average Pairwise Cohen's Kappa (κ)	Average Pairwise Krippendorff's Alpha (α)
28.	Judging – Classroom or Competition	99.09%	0.96	0.96
29.	Translate Judging to other contexts?	99.09%	N/D	0
30.	DM: No context	100%	1	1
31.	DM: Executive/Administrative	100%	N/D	N/D
32.	DM: Cooperative/Deliberative	100%	1	1
33.	DM: Personal	99.09%	0.774	0.747
34.	DM: Other contexts	99.09%	N/D	0
35.	Guidelines	98.17%	0.934	0.934
36.	Procedure	97.26%	0.666	0.654
37.	"Weighing"/Scenario resolution	96.35%	0.452	0.412
38.	Examples	99.09%	0.9	0.896
39.	Exercises (specific to DM)	96.35%	0.72	0.715
40.	Tolerance of Uncertainty/Ambiguity	99.09%	0.774	0.796
41.	Criteria Awareness	96.35%	0.607	0.583
42.	Ethical criteria	99.09%	0.862	0.853
43.	Cost-Benefit Analysis	96.35%	0.382	0.412
44.	Listening/Note taking/Flowing	99.09%	0.95	0.952
45.	Presumption/Burden of proof	100%	N/D	N/D
46.	Rules/Format	99.09%	0.774	0.796

#	Element	Average Pairwise Percent Agreement (%)	Average Pairwise Cohen's Kappa (κ)	Average Pairwise Krippendorff's Alpha (α)
47.	Stock Issues, Disadvantages,…	100%	1	1
48.	Critical Theory/Kritiks	100%	N/D	N/D
49.	Translate specific elements?	99.09%	N/D	0
50.	Research/Personal knowledge	95.43%	0.719	0.738

Note. N/D = undefined for this variable due to invariant values.

Notes

[1] The researcher conducted searches using the Google search engine to locate syllabi for high school and college courses on argumentation and debate. While the search was not scientifically rigorous (given the problems noted in the methods section with this approach) almost every class used a textbook, and all the textbooks noted were in the sample of textbooks for the study. While it was the researcher's subjective determination that the syllabi followed the structure of the textbooks used, this conclusion was based on evidence such as specific chapters being listed for specific days of class, and the topics listed for those days corresponding closely to the titles of the chapters in the textbooks.

[2] Data was not available for books with sales of less than 60 units.

CHAPTER 5
RESULTS, ANALYSIS, AND CONCLUSIONS

In the introduction, I hypothesized that current argumentation and debate textbooks focus on argument construction rather than decision-making. This contention seems to be supported by the data. As expected, while the vast majority of the books (65 of the 73 textbooks in the sample) covered argument construction, and some covered what might be considered precursor skills for decision-making, none of them provided comprehensive instruction for decision-making.

Demographic Results

Thirty-one books covered some form of debate, with 20 providing instruction on policy debate, 8 on value debate, 6 on parliamentary debate, and 9 covering other forms of debate (e.g., student congress, deliberative/cooperative debate, etc.). Twenty-seven books were about argumentative writing and 15 were more general argument theory textbooks (defined by scores of "1" on element #9, but "0" on elements #18 and #19). Most (63) included discussion questions or exercises and 37 included a glossary of terms, as indicated in Table 5.1.

Argument Theory

Fifty-nine books devoted at least one chapter to argument theory elements. More than half of the books (37) spent at least one page covering the definition of argument, distinguishing academic argument (e.g., claim and support) from vernacular uses of argument (e.g., having an argument, verbal fight, etc.), and actually more than this had some sort of definition, but did not meet the one-page minimum threshold for this element. Several books (7) covered the concept of argument fields and/or spheres, meaning either the idea that there are different fields in which arguments occur (e.g., scientific arguments require different evidence than public policy arguments, legal arguments are different from religious arguments, etc.) or the idea that public,

Table 5.1 Books with each General Element

#	Element	Books	Percent
1.	Definition of Argument	37	51%
2.	Argument Fields/Spheres	7	10%
3.	Argument Purposes	13	18%
4.	Toulmin Model	36	49%
5.	Other Models	6	8%
6.	Types/Tests of Argument	57	78%
7.	Fallacies	55	75%
8.	Types/Tests of Evidence/Support	55	75%
9.	Argument Theory	59	81%
10.	Plagiarism	18	25%
11.	Other Ethics	25	34%
12.	Glossary	37	51%
13.	Discussion/Exercises/Activities	63	86%
14.	Invention/Brainstorming/Topic analysis	55	75%
15.	Research	53	73%
16.	Argument Construction	65	89%
17.	Refutation	56	77%
18.	Argumentative Writing	27	37%
19.	Debate (any kind)	31	42%
20.	Policy Debate	20	27%

#	Element	Books	Percent
21.	Value Debate	8	11%
22.	Parliamentary Debate	6	8%
23.	Other (Identify):	9	12%
24.	Audience Analysis	44	60%
25.	Judging/Decision-making—Paradigms	7	10%
26.	Judging/Decision-making—Process/How to	10	14%
27.	Judging/Decision-making—Principles/Criteria	13	18%

private, and technical arguments have different characteristics. Another 13 paid at least some attention to the idea that argument can be for different purposes, meaning the idea that we engage in argument for different reasons (e.g., some arguments are about persuasion, some arguments are about winning, some arguments are about trying to produce the best outcome, some arguments are about finding the truth, etc.).

About half (36) of the books covered the Toulmin model of argument and 6 presented other argument models, although it should be noted that most of these seemed to be the Toulmin model with only the names changed (e.g., the ARE model with assertion, reasoning, and evidence, instead of claim, warrant, and data). Most books covered different types and/or tests of argument (57), fallacies (55), and different types and/or tests of evidence (55), though only 42 covered all three of these elements with another 8 covering two of the three. Complete results for the argument theory elements are presented in Table 5.1.

Ethics

Eighteen of the 27 argumentative writing textbooks covered plagiarism and/or how to avoid it, but only 6 addressed any other ethical issues (e.g., fabrication of evidence, taking evidence out of context, etc.). None of the debate books addressed the issue of plagiarism. However, 13 debate and 6 argument theory books did cover other ethical issues, as reflected in Table 5.1.

Argument Construction

The single highest score (65) on any element was for argument construction (element #16), meaning how to assemble and/or organize material to effectively support a position. There were similarly high numbers for related elements. Fifty-five textbooks covered invention, brainstorming, and/or topic analysis, though this was an admittedly broad category of how to generate arguments in a given area, which included: looking for common themes and differences

in analyzing propositions of fact, value, policy; brainstorming; thinking of relevant arguments; thinking of what the focus of a given topic will be; planning for research; and similar concepts. Fifty-three textbooks provided at least some advice on how to research, whether to generate ideas or find support for arguments. Fifty-six books covered the concept of refutation, though again it should be noted that this was defined broadly to include acknowledging opposing viewpoints (e.g. in a position paper), not just how to refute in a debate setting. Again, these specific results can be seen in Table 5.1.

Audience

Forty-four books discussed the concept of audience analysis, defined as the idea that different audiences have different characteristics, thus requiring speakers to adapt their arguments, their support, or their style of presentation to effectively communicate with those different audiences. Seven texts covered judging paradigms, meaning sets of assumptions or criteria that judges apply when reviewing a debate that might affect their decision. Elements #26 and #27 were largely subsumed by the more specific breakdown covered by elements #28-50 (the decision-making elements). These results are found in Table 5.1.

Decision-making

As expected, none of the textbooks in the sample met all of the criteria outlined in Chapter 3 (See Table 5.2). Only 14 textbooks covered any facet of decision-making (operationalized as a score of "1" on any element #26-50). Ten covered some aspect of judging debates and, while all 10 of those votes provided some guidelines for judging classroom or competition debates (e.g., judges should be fair to both teams, judges should not make decisions based on their own personal views, etc.), only one (Muir & Butt, 2008) provided a systematic procedure for doing so (i.e., step one, step two, step three, etc.). One argumentative writing book by Chaffee, Stout, and McMahon (2008) provided a basic procedure for decision-making—

Table 5.2 Books with each Decision-making Element

#	Element	Books	Percent
28.	Judging – Classroom or Competition	10	14%
29.	Attempt to translate Judging to other contexts?	0	0%
30.	Decision-making: No context	2	3%
31.	Decision-making: Executive/Administrative	0	0%
32.	Decision-making: Cooperative/Deliberative	1	1%
33.	Decision-making: Personal	1	1%
34.	Decision-making: Other contexts	0	0%
35.	Guidelines	12	16%
36.	Procedure	2	3%
37.	“Weighing” issues/Scenario resolution	1	1%
38.	Examples	3	4%
39.	Exercises (specific to decision-making)	5	7%
40.	Tolerance of Uncertainty/Ambiguity	2	3%
41.	Criteria Awareness	2	3%
42.	Ethical criteria	2	3%
43.	Cost-Benefit Analysis	3	4%
44.	Listening/Note taking/Flowing	8	11%
45.	Presumption/Burden of proof	0	0%
46.	Rules/Format	2	3%
47.	Stock Issues, Disadvantages, Counterplans	1	1%

#	Element	Books	Percent
48.	Critical Theory/Kritiks	0	0%
49.	Attempt to translate specific elements?	0	0%
50.	Research/Personal knowledge	8	11%

bizarrely located in the middle of a chapter on how to write a rough draft. However, it did not provide any guidance or criteria for how to get through any of the individual steps (e.g., Step 3 includes "evaluate the pros and cons," but does not suggest any criteria for deciding what is a "pro" and what is a "con," or how you would determine the relative weights of the pros and cons involved). Two books (Govier, 2005; Reike, Sillars & Patterson, 2009) devoted some attention to decision-making without any consideration of the context in which the decision is made. Both were argument theory textbooks and functioned under the assumption that evaluating statements based on argument theory elements (e.g., are there any fallacies?, is the supporting evidence biased?) was sufficient to make a decision. However, in fairness, Reike, Sillars, and Patterson (2009) do cover different fields of argument (e.g., Science, Law, Government) and Gouvier's (2005) one example of an extended decision-making question is a public policy issue.

None of the books covering judging attempted to translate judging skills into other contexts, meaning that none of them attempted to explain how skills developed through judging debates could be applied to other contexts, in terms of similarities and differences. For example, a book that suggested that the process for judging a debate could help with making personal decisions, such as choosing a major, and then explained how to transfer those skills from one context to the other would have counted in this category. None of the books covered decision-making from an executive or administrative perspective (i.e., how would you approach decision-making if you were a high school principal, congressional representative, president, or similar role where you were responsible for making decisions that affected other people). Only one book (Snider, 2008) explicitly covered the question of how to figure out the relative weights of advantages and disadvantages, given competing policy options. Three books provided examples of decision-making and 5 offered exercises related to decision-making.

None of the books discussed how presumption or burden of proof factor into the decision. Just 2 of the books talk about how rules or the format of a decision-making activity could affect a decision, and then only in the context of judging competitive debates. Only 2 books discussed the concepts of ambiguity or tolerance of uncertainty and how they might affect the decision-making process. Also, 2 books suggested that criteria can change in different contexts and that decision-makers need to be aware of the criteria they use. And 2 of the textbooks suggested that ethical concerns should enter into a decision.

While many of the debate textbooks included material on how to construct arguments such as affirmative cases, disadvantages, and counter plans, only one book (Snider, 2008) discussed how these argument types factor into a decision and none of the textbooks covered how critical theory could or should affect decision-making. Furthermore, none of the textbooks discussed how to use these argument types for a decision other than judging a competitive or classroom debate or attempt to translate them into other contexts at all.

Eight books included the importance of listening and note-taking or flowing for making a good decision, but almost all of these references were limited to: "You should take notes to make sure you do not miss or forget any important arguments in a debate." None really discussed how to integrate those notes into a decision or their importance to any context other than judging competitive debates. An additional 8 books covered the role of personal knowledge in decision-making, but again all of these references were to judging debates and almost all of them said the same thing: "You should judge the debate based on the arguments presented in the round, and not let your personal views affect the outcome." Three books mention cost benefit analysis, but only Snider (2008) really discusses how to figure out those costs and benefits, and then only in the context of judging a debate.

Furthermore, even though many of these elements were present in some of the textbooks, they tended not to match up. For example, Makau and Marty (2001) has deliberative argument, but does not cover judging, does not have a very strong argument theory section and does not cover argument in any other contexts. Also, Rieke, Sillars, and Peterson (2009) briefly discuss the concept of criteria awareness and argument in different fields, but they are not as clear as they could be and they do not provide explicit examples of how criteria change from field to field (and, of course, they do not cover debate at all, suggest any type of judging or decision-making practice, etc.). Some books separately advocate practice and advocate judging, but do not advocate any judging practice.

There are also threshold issues to consider when interpreting the results. Books may mention a concept, but not devote a full page to it, and would thus appear in the results as having not covered the concept at all. Books may also technically meet the definition, and would appear in the results as having covered a concept, when in fact they do a terrible, or even sometimes misleading, job of it.

While few of the textbooks covered decision-making skills explicitly, many books did cover some of the decision-making precursors discussed in Chapter 3, which could help many students to develop the skills on their own, or at least improve their decision making skills somewhat. These results make it easy to see how current argumentation and debate instruction improves critical thinking and has the potential to improve decision-making ability. However, they also illustrate how argumentation and debate instruction could be improved.

Limitations

While every effort was made to make this sample of argumentation and debate textbooks as comprehensive as possible, I cannot guarantee that it includes every textbook currently available. It is possible that there are argumentation and debate books that escaped my attention.

Bookscan admitted that their sales data, the most comprehensive currently available, were not particularly good for tracking textbook sales, because while 75% of the US market reports to them, very few college bookstores do. The claims about critical thinking and decision-making texts from other fields are based on a limited sample. A comprehensive review of political science, public policy, psychology, and philosophy textbooks would be necessary to fully substantiate the claims that these books are no better in their coverage of decision-making elements than argumentation and debate books in the communication and language arts area.

There are obvious limitations to evaluating textbooks in this manner. Scoring for presence/absence cannot provide an assessment of quality. Some individual results are even misleading: Verlinden (2005) was one of the few texts to clearly address both argument fields and argument purposes, but did so for only about one-half page each, so scored as not having either. Conversely, some texts cover issues enough to meet the coding threshold, even though their description of the issue is incomplete or misleading. Burton and McDonald (2008), for example, scored as covering types and tests of argument and types and tests of supporting evidence, though they only cover three types of argument and three types of supporting material, which leaves out a great deal of useful information.

Chapter 3 calls for classes that model competitive policy debate as closely as possible, based on the available literature. One difficulty is the lack of literature on the benefits of other forms of debate (e.g., Parliamentary, Lincoln-Douglas, etc.). It may be that participation in these other forms of debate would also serve as good models, but there is, as yet, little or no evidence to support that claim. Several studies also indicate that the skill of the teacher matters a lot to the success of instruction and area of critical thinking (Willingham, 2007), so the recommendations in this chapter certainly cannot be considered a panacea. Another limit, already mentioned in

Chapter 2 is the distinction between participation in competitive policy debate and taking an argumentation and debate class, which is an unknown quantity, and suggests the need for further testing of the recommendations to follow.

Recommendations

Despite these potential limits, there seems to be sufficient evidence to offer some suggestions both for further research and for actions argumentation and debate instructors can take now. In addition to further research, these actions include: selecting among existing textbooks, revising existing textbooks, writing new textbooks, filling in gaps in textbooks with supplementary material or activities, and coaching in a manner that maximizes criteria awareness and decision-making.

Further Research

The most obvious areas for further research are studies to address the issues raised in the previous section. An analysis of books and other fields related to decision-making, such as public policy, business, economics, psychology, etc. would help to determine if there are other, better, approaches to teaching decision-making, and may indicate facets of decision-making not uncovered by this study. Studies of argumentation and debate syllabi, as well as survey work and interviews with argumentation and debate instructors would provide a better, more comprehensive picture of the current state of argumentation and debate instruction. As indicated in the previous section, more work needs to be done on the potential benefits to participation in forms of debate other than policy debate. While some specific suggestions and exercises are provided in the next section, many of the recommendations need to be expanded and given more detail. As approaches, exercises, and textbooks are developed, they should be compared and tested empirically.

Future research should also address the questions of how to prioritize elements. This is an important consideration given how limited the available class time already is and given how much additional time could potentially be devoted to decision-making elements. This is further complicated by the disparate paces with which different groups of students move through the material.

Textbook Selection

Arguably the easiest and least intrusive step instructors could take would be to use the results of this content analysis to select their next text. Table B1 (in Appendix B) provides scores for each textbook, both overall and for decision-making elements. While making a decision based purely on the number of elements covered would probably be inadvisable, it could probably at least serve to exclude textbooks with the least coverage. Specific elements could also serve to help narrow down the options. Tables B2 - B6 provide the complete results for each book for each element. For example, Instructors who want to include policy debate could start with books marked "1" for element # 20; those who want some sort of debate practice, but are not sure about which type of debate they want to pursue could start with books marked "1" for element # 19.

Textbook Revision

Authors of textbooks included in this content analysis might decide to augment missing (or undercovered) elements in the material they cover. Most, if not all of the texts could benefit from more extensive coverage of decision-making, but in many cases, minor modifications to go a long way to improving the reach of existing sections. For example, as noted in the results, many already cover judging classroom or competition debates and provide some guidelines. If some of these texts did a little more to cover how to weigh issues, included recommended practice activities, and discussed how some of these skills might transfer to personal decision-

making, they would significantly increase their potential to help students. Obviously this might not be appropriate for all textbooks (e.g., argument writing books are not necessarily designed to provide comprehensive instruction in argumentation and debate; they may be designed for a composition course).

New Textbooks

Another option, given that many existing textbooks seem to cover argument construction and debate elements reasonably well already, would be for one or more authors to write new textbooks designed to supplement existing material. Still on another option would be for one or more authors to write a new textbook from scratch, with the intent to integrate argument construction, argument evaluation, and decision-making elements throughout the text. This would require a significant effort, but would offer the advantage of integrating the material more smoothly and seamlessly.

Instructors

Rather than trying to address shortcomings with textbooks, instructors could simply elect to fill in the missing material on their own. Instructors could make handouts covering various elements of decision-making, or include such material in a course packet. Instructors could also opt to offer a separate class in decision-making. This option may be especially appealing, given how much material would need to be covered to provide comprehensive decision-making instruction, but is also often out of the instructor's hands based on constraints within their department. Instructors could also add new classroom activities to work in conjunction with existing activities, such as adding a judging element to a series of in class debates.

To help students understand the importance of criteria awareness, it would probably help for the instructor to first explain the basic concept of decision making criteria, provide some examples of different criteria that might be used in different situations, and explain how different

criteria could yield different decisions, even in the same situation. The instructor could then solicit different decision making situations from the class and enlist the aid of the class in generating lists of criteria that would or would not be appropriate in those situations.

Once the basic idea is clear, the students should practice establishing and applying criteria as much as possible in as many different contexts as possible. There are a number of ways these concepts could be combined, but the following exercises illustrate a few possibilities for how it could be done with only minor adjustments to a typical argumentation and debate syllabus, as long as it includes several in-class debates.

Exercise 1: The first two groups will have their in-class debate. The rest of the class will be given ballots and asked to render a decision, but will not be given specific criteria to do so. After the debate, the class will talk about which way they voted and why, with an eye to identifying the various criteria used. We would follow up with a discussion about these criteria, why they were used, whether or not they should be used for in-class debates, etc.

Exercise 2: The next two groups would have their in-class debate. The rest of the class would be given ballots and asked to judge using the criteria of a traditional competitive policy debate round, with emphasis on rules and fairness. After the debate, we would discuss the decisions the class made and whether or not those decisions fit the criteria we established. If time permits, we could compare the criteria used in this situation to criteria that would be used in other situations.

Exercise 3: We would use the same set up as Exercise 2 except the class would be given one of four different judging paradigms: speech/delivery, stock issues, policymaker, or concerned citizen (with no formal debate training). After the debates, we would discuss how

well the two teams did when viewed from each of the different paradigms and discuss how well the class did in adhering to the judging criteria they were given for each paradigm.

Exercise 4: This would follow the same procedure as Exercise 3, except the class would be given certain characters and judge the debate from the perspective of those characters. For example, if the topic was US trade policy with China, some students might play the part of the Chinese president and his advisers, some might be Chinese companies, some might be the US president and his advisers, some might be US companies, some might be representatives from states with trade interests in China, some might be representatives from states without trade interests in China, some might be trade representatives from Japan or the European Union, etc. Once again, we would both evaluate the debate from those various perspectives and see how closely the class could adhere to different sets of criteria as they evaluate the debate. This would provide an interesting twist on Mitchell's (2000) approach, and would be additive to the benefits of participating in a switch-side debate, instead of trading off with them.

Exercise 5: This could be the same as Exercise 4 except that, before the debate, students would be charged with generating a list of characters and criteria for these characters on their own. They might then each judge the debate as their character, or the instructor might collect the character and criteria sheets and randomly distribute them to the class, so that students would not know ahead of time what perspective they would be using.

Exercise 6: As with the other exercises, two teams would have their in-class debate, but this time the class would try to reach an actual decision on the policy question using the cooperative argumentation approach outlined by Makau & Marty (2001). This could even be combined with a role-playing setting. For example, the class might consider itself a commission charged with providing a recommendation to the President on whatever the issue in the debate is.

While the class might not be able to reach a consensus, they might be able to outline what additional information they would need to know, or what further questions they would want to ask before making a final decision or providing a final recommendation.

Exercise 7: Students could be required to judge their own debate as if they were the teacher.

Exercise 8: Students could be asked to judge a single debate from more than one perspective. For example, they might write one ballot from the perspective of an argument teacher and one ballot from the perspective of a concerned citizen.

These exercises are to some degree interchangeable. While Exercises 1-6 are set up as a progression, each exercise building on the previous exercise, Exercises 7 & 8 could be substituted for some of the others or mixed in at any point. If there are enough debates, it may be helpful to repeat some of the exercises to practice and to reinforce the concepts involved.

Coaches

In Chapter 2, I discussed some misconceptions about current argumentation and debate practice put forward by the proponents of Invitational Debate. While I conclude that their generalizations about switch side debate are not accurate, I would be just as inaccurate if I claimed that none of the unfortunate practices they described ever occurred. There are some debaters who show no respect for their opponents and there are some debaters who focus on winning to the exclusion of any other educational purpose. As explained previously, many coaches establish a team environment that checks these negative impulses, but this is not something that should be taken for granted.

Coaches should emphasize the educational aspects of debate as well as the competitive aspects, and could follow many of the recommendations directed at instructors in the previous section. In particular, coaches should emphasize the cooperative and deliberative facets of

debate as well as the competitive ones. This can easily be accomplished in a manner consistent with the team's competitive goals through activities like cooperative brainstorming on the topic and strategy sessions which tests multiple competing responses to opposing cases. Coaches should encourage debaters to do their own research as well as sharing research produced by the rest of the team. It would be helpful to students to talk about the similarities and differences between debate and "real-world" decision-making, and how students might translate their debate skills into their own decision making processes. It would also be helpful to students if coaches encourage them to judge debates when they have an opportunity, or at least watch debates with others and discuss their reactions.

Conclusion

The need for improving student critical thinking and decision-making skills is urgent. There is a clear need for decision makers who can address complex problems and find ethical, feasible solutions. We cannot solve those problems if we do not produce skilled decision-makers, we cannot produce skilled decision-makers without effective approaches to teaching decision-making, and we cannot even assess our current approaches without knowing what material we currently teach. Research has established that argumentation and debate instruction is an effective method for improving critical thinking ability in students. Despite this clear relationship, there is room for improvement. William Keith (2007) argued that despite the ongoing nature and mixed results of this struggle for improvement, there is room for hope:

> The apparent mismatch between popular government and the scale and complexity of modern life…continues to confound us, and every other modern democracy as well. We certainly do value our democratic ideals, but humans are fallible, and so is their decision making. John Dewey saw human thought and life as a continuous process of making choices to solve problems, whether they are smaller, more local problems (what to have for dinner) or larger problems (the best response to global warming). At each level, human beings' ongoing attempts to perfect their decisions seem to meet with mixed success, yet their hope persists that decision making can be improved. (p. 2)

Yet, our continued improvement should not be something that we take for granted. In Chapter 1, I made the case that changes in government policy are not a substitute for public education to increase critical thinking and decision-making. Despite this orientation, it is clear to me that argumentation and debate instruction relies on support from school and government officials. High school argument classes have been cut to facilitate more attention to standardized tests (Matthews, 1997). High school and college debate programs are often among the first targets of budget cuts (Blake, 1994; Sowa-Jamrock, 1994; Summerfield, 1997) and even when funds are available, debate teams seldom receive the funding or attention given to other programs, especially sports (Lombard, 1997; Lowe, 1997). None of the recommendations I propose mean anything if debate programs and/or argumentation classes cease to exist. While the primary audience of this monograph is argumentation and debate instructors, I hope some of the material herein will help make the case to high school principals, school boards, department chairs, and other university administrators that argumentation and debate education is a valuable investment. Paul and Willsen (1995) concluded that the case for improving critical thinking and decision-making skills should continue to grow stronger:

> What we can be sure of is that the persuasiveness of the argument for critical thinking will only grow year by year, day by day—for the logic of the argument is simply the only prudent response to the accelerating change, to the increasing complexity of our world. No gimmick, no crafty substitute, can be found for the cultivation of quality thinking. The quality of our lives can only become more and more obviously the product of the quality of the thinking we use to create them. (p. 16)

Again, however, we should not assume that this case will be self-evident. Additional work in this area should continue to refine our ability to teach critical thinking and decision-making skills, and provide further evidence for its value as a pedagogical approach.

This content analysis of argumentation and debate textbooks makes it clear that current argumentation and debate materials should devote more attention to context, criteria awareness, and decision-making. This monograph should give communication scholars a better idea of what elements of argumentation and debate are taught to students and should help to design responses to the limitations in the current approaches. Like Dewey and Keith, my hope persists that decision-making can be improved.

APPENDIX A
BOOKS INCLUDED IN THE STUDY

Barnet, S., & Bedau, H. A. (2008). *Critical thinking, reading, and writing: A brief guide to argument* (6th ed.). Boston: Bedford/St. Martins.

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Bennett, W. H. (1993). *Pragmatic debate* (4th ed.). Taos, NM: CDE.

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Faigley, L., & Selzer, J. (2009). *Good reasons: Researching and writing effective arguments* (4th ed.). New York: Pearson/Longman.

Freeley, A. J., & Steinberg, D. L. (2009). *Argumentation and debate: Critical thinking for reasoned decision making* (12th ed.). Boston: Wadsworth/Cengage.

Gage, J. T. (2006). *The shape of reason: Argumentative writing in college* (4th ed.). New York: Pearson/Longman.

Goodnight, L. (1993). *Getting started in debate* (2nd ed.). Lincolnwood, IL: National Textbook.

Goshgarian, G., & Krueger, K. (2009). *Dialogues: An argument rhetoric and reader* (6th ed.). New York: Pearson/Longman.

Govier, T. (2005). *A practical study of argument* (6th ed.). Belmont, CA: Thomson/Wadsworth.

Hanson, J. (2009, April 16). How to do policy debate. Retrieved January 31, 2010, from http://www.wcdebate.com/1policy/9-policy.htm

Hatch, G. L. (2003). *Arguing in communities: Reading and writing arguments in context* (3rd ed.). Boston: McGraw-Hill.

Hensley, D., & Carlin, D. B. (2005). *Mastering competitive debate* (7th ed.). Logan, IA: Perfection.

Herrick, J. A. (2007). *Argumentation: Understanding and shaping arguments* (3rd ed.). State College, Pa.: Strata.

Hollihan, T. A., & Baaske, K. T. (2005). *Arguments and arguing: The products and process of human decision making* (2nd ed.). Long Grove, IL: Waveland Press.

Huber, R. B., & Snider, A. (2006). *Influencing through argument* (Updated ed.). New York: International Debate Education Association.

Inch, E. S., Warnick, B., & Endres, D. (2006). *Critical thinking and communication: The use of reason in argument* (5th ed.). Boston: Pearson/Allyn & Bacon.

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Lunsford, A. A., Ruszkiewicz, J. J., & Walters, K. (2007). *Everything's an argument with readings* (4th ed.). Boston: Bedford/St. Martin's.

Makau, J. M., & Marty, D. L. (2001). *Cooperative argumentation: A model for deliberative community*. Prospect Heights, IL: Waveland Press.

Mauk, J., & Metz, J. (2009). *Inventing arguments* (2nd ed.). Boston: Wadsworth/Cengage.

Mayberry, K. J. (2005). *For argument's sake: A guide to writing effective arguments* (5th ed.). New York: Pearson.

Mayberry, K. J. (2009). *Everyday arguments: A guide to writing and reading effective arguments* (3rd ed.). Boston: Houghton Mifflin.

Meany, J., & Shuster, K. (2002). *Art, argument and advocacy: Mastering parliamentary debate*. New York: International Debate Education Association.

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Richards, J. A., & Rickett, C. S. (1995). *Debating by doing: Developing effective debating skills*. Lincolnwood, IL: National Textbook.

Rieke, R. D., Sillars, M. O., & Peterson, T. R. (2009). *Argumentation and critical decision making* (7th ed.). Boston: Pearson/Allyn & Bacon.

Rottenberg, A. T., & Winchell, D. H. (2009). *Elements of argument: A text and reader* (9th ed.). Boston: Bedford/St. Martins.

Rottenberg, A. T., & Winchell, D. H. (2009). *The structure of argument* (6th ed.). Boston: Bedford/St. Martin's.

Rybacki, K. C., & Rybacki, D. J. (2008). *Advocacy and opposition: An introduction to argumentation* (6th ed.). Boston: Allyn & Bacon/Pearson.

Shuster, K., & Meany, J. (2005). *Speak out!: Debate and public speaking in the middle grades*. New York: International Debate Education Association.

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APPENDIX B
RESULTS FOR EACH BOOK

Table B1 Individual Scores for Each Textbook

Book	Overall Score	Decision-making Score
Barnet & Bedau (2008)	13	0
Bellon & Williams (2006)	6	0
Bennett (1993)	12	0
Bennett (2007)	10	0
Branham (1991)	7	0
Broda-Bahm et al (2004)	13	0
Burgett (2007)	7	0
Burton et al (2008)	8	0
Campbell & Huxman (2003)	12	0
Chaffee et al (2008)	17	2
Clark (1998)	12	0
Corbett & Eberly (2000)	7	0
Crossmann (2006)	13	0
Edwards (2008)	13	0
Eemeren et al (2002)	6	0
Epstein (2002)	5	0
Ericson et al (2003)	9	0
Faigley & Selzer (2009a)	14	0
Faigley & Selzer (2009b)	14	0

Book	Overall Score	Decision-making Score
Freeley & Steinberg (2009)	29	6
Gage (2006)	8	0
Goodnight (1993)	11	0
Goshgarian & Krueger (2009)	13	0
Govier (2005)	13	3
Hanson (2009, April 16)	4	0
Hatch (2003)	13	0
Hensley & Carlin (2005)	18	0
Herrick (2007)	15	0
Hollihan & Baaske (2005)	16	0
Huber & Snider (2006)	11	0
Inch et al (2006)	13	0
Infante (1988)	9	0
Johnson & Blair (2006)	8	0
Knapp & Galizio (1999)	20	2
Lamm & Everett (2007)	14	0
Leigh (2005)	14	0
Lunsford et al (2007)	14	0
Makau & Marty (2001)	20	7
Mauk & Metz (2009)	15	0
Mayberry (2005)	12	0

Book	Overall Score	Decision-making Score
Mayberry (2009)	14	0
Meany & Shuster (2002)	20	4
Meany & Shuster (2003)	20	4
Merali (2006)	11	2
Miller (2007)	13	0
Muir & Butt (2008)	18	6
Munson & Black (2007)	6	0
NAUDL (2008)	7	0
Palmer & Memering (2008)	12	0
Phillips et al (1997)	20	6
Planet Debate (2009)	7	0
Ramage et al (2009)	14	0
Richards & Rickett (1995)	14	0
Rieke et al (2009)	17	4
Rottenberg & Winchell (2009a)	13	0
Rottenberg & Winchell (2009b)	13	0
Rybacki, & Rybacki (2008)	15	0
Shuster & Meany (2005)	17	6
Sinnott-Armstrong (2009)	7	0
Snider (2008)	20	6
Trapp et al (2005)	24	7

Book	Overall Score	Decision-making Score
Trefethen (2007)	7	0
Verlinden (2005)	12	0
Walton (2006)	4	0
Weston (2009)	8	0
White (2007)	15	0
Wiese & Lewis (2000)	13	0
Williams & Colomb (2007)	14	0
Wood (2007)	15	0
Wood (2008)	14	0
Wood & Goodnight (1995)	16	0
Ziegelmueller et al (1995)	10	0
Ziegelmueller & Kay (1997)	19	0

Table B2 Results for each Book, General Elements 1-9

	Element								
Book	1	2	3	4	5	6	7	8	9
Barnet & Bedau (2008)	0	0	0	1	0	1	1	1	1
Bellon & Williams (2006)	0	0	0	0	0	0	0	0	0
Bennett (1993)	0	0	0	0	0	0	0	1	1
Bennett (2007)	0	0	0	0	0	0	1	1	0
Branham (1991)	0	0	0	0	0	0	0	1	0
Broda-Bahm et al (2004)	1	0	0	1	0	1	1	1	1
Burgett (2007)	0	0	0	0	0	0	0	0	0
Burton et al (2008)	0	0	0	0	0	1	1	1	1
Campbell & Huxman (2003)	0	0	0	0	0	1	1	1	1
Chaffee et al (2008)	1	0	0	1	0	1	1	1	1
Clark (1998)	0	0	0	1	0	1	1	1	1
Corbett & Eberly (2000)	0	0	0	1	0	1	1	0	1
Crossmann (2006)	0	0	0	1	0	1	1	1	1
Edwards (2008)	0	0	0	1	0	1	0	0	1
Eemeren et al (2002)	1	0	0	0	0	1	1	0	1
Epstein (2002)	1	0	0	0	0	1	1	0	1
Ericson et al (2003)	0	0	0	1	0	1	1	0	0
Faigley & Selzer (2009a)	1	0	0	0	0	1	1	1	1
Faigley & Selzer (2009b)	1	0	0	0	0	1	1	1	1

	Element								
Book	1	2	3	4	5	6	7	8	9
Freeley & Steinberg (2009)	1	0	1	1	1	1	1	1	1
Gage (2006)	1	0	0	0	0	0	0	0	0
Goodnight (1993)	0	0	0	0	0	1	0	1	1
Goshgarian & Krueger (2009)	1	0	1	1	0	0	1	1	1
Govier (2005)	1	0	0	0	1	1	1	1	1
Hanson (2009, April 16)	0	0	0	0	0	0	0	0	0
Hatch (2003)	1	0	0	0	0	1	1	1	1
Hensley & Carlin (2005)	0	0	0	1	0	1	1	1	1
Herrick (2007)	1	0	1	1	0	1	1	1	1
Hollihan & Baaske (2005)	1	1	1	1	0	1	1	1	1
Huber & Snider (2006)	1	0	1	0	0	1	1	1	1
Inch et al (2006)	1	1	0	1	1	1	1	1	1
Infante (1988)	0	0	0	0	0	1	0	1	1
Johnson & Blair (2006)	1	0	1	0	0	1	1	0	1
Knapp & Galizio (1999)	1	0	0	1	0	1	1	1	1
Lamm & Everett (2007)	1	0	0	1	0	0	1	1	1
Leigh (2005)	1	0	0	1	0	1	1	1	1
Lunsford et al (2007)	0	0	1	1	0	1	1	1	1
Makau & Marty (2001)	1	1	1	0	0	1	1	1	1
Mauk & Metz (2009)	1	0	0	1	0	1	1	1	1

	Element								
Book	1	2	3	4	5	6	7	8	9
Mayberry (2005)	1	0	0	1	0	1	1	1	1
Mayberry (2009)	1	0	0	1	0	1	1	1	1
Meany & Shuster (2002)	0	0	0	1	0	1	1	1	1
Meany & Shuster (2003)	1	0	0	0	1	1	1	0	1
Merali (2006)	0	0	0	0	0	0	0	1	0
Miller (2007)	0	0	1	1	0	1	1	1	1
Muir & Butt (2008)	0	0	0	0	0	0	0	0	0
Munson & Black (2007)	1	0	0	0	0	1	1	0	1
NAUDL (2008)	1	0	0	0	0	0	0	1	0
Palmer & Memering (2008)	0	0	0	1	0	1	1	1	1
Phillips et al (1997)	0	0	0	0	0	1	0	0	1
Planet Debate (2009)	0	0	0	0	0	0	0	0	0
Ramage et al (2009)	1	0	0	1	0	1	1	1	1
Richards & Rickett (1995)	0	0	0	0	0	1	1	1	1
Rieke et al (2009)	1	1	0	1	0	1	1	1	1
Rottenberg & Winchell (2009a)	0	0	0	1	0	1	1	1	1
Rottenberg & Winchell (2009b)	0	0	0	1	0	1	1	1	1
Rybacki, & Rybacki (2008)	1	1	0	1	0	1	1	1	1
Shuster & Meany (2005)	0	0	0	0	0	1	0	1	1
Sinnott-Armstrong (2009)	1	0	0	0	0	1	1	0	1

	Element								
Book	1	2	3	4	5	6	7	8	9
Snider (2008)	0	0	0	0	1	0	0	1	0
Trapp et al (2005)	0	1	0	1	0	1	1	1	1
Trefethen (2007)	0	0	0	0	0	0	0	0	0
Verlinden (2005)	1	0	0	1	0	1	1	1	1
Walton (2006)	0	0	0	0	0	1	1	0	1
Weston (2009)	0	0	0	0	0	1	1	1	1
White (2007)	1	0	0	1	0	1	1	1	1
Wiese & Lewis (2000)	0	0	0	0	0	0	1	1	0
Williams & Colomb (2007)	1	0	1	1	0	1	1	1	1
Wood (2007)	1	0	1	1	0	1	1	1	1
Wood (2008)	1	0	1	1	0	1	1	1	1
Wood & Goodnight (1995)	1	0	0	1	0	1	1	1	1
Ziegelmueller et al (1995)	0	0	0	0	0	1	0	1	1
Ziegelmueller & Kay (1997)	1	1	1	0	1	1	1	1	1

Table B3 Results for each Book, General Elements 10-18

	Element								
Book	10	11	12	13	14	15	16	17	18
Barnet & Bedau (2008)	1	1	0	1	1	1	1	0	1
Bellon & Williams (2006)	0	0	1	0	0	0	1	1	0
Bennett (1993)	0	0	1	1	1	1	1	1	0
Bennett (2007)	0	0	1	1	1	1	1	1	0
Branham (1991)	0	1	0	0	1	1	1	1	0
Broda-Bahm et al (2004)	0	1	0	0	0	1	1	1	0
Burgett (2007)	0	0	1	0	1	1	1	1	0
Burton et al (2008)	0	0	0	1	0	1	0	0	1
Campbell & Huxman (2003)	0	1	0	1	1	1	1	1	1
Chaffee et al (2008)	1	1	0	1	1	1	1	0	1
Clark (1998)	1	0	0	1	1	1	1	0	1
Corbett & Eberly (2000)	0	0	0	1	1	0	1	0	0
Crossmann (2006)	0	0	0	1	1	1	1	1	0
Edwards (2008)	0	1	1	0	1	1	1	1	0
Eemeren et al (2002)	0	0	0	1	0	0	0	0	1
Epstein (2002)	0	0	0	1	0	0	0	0	0
Ericson et al (2003)	0	0	1	0	0	1	1	1	0
Faigley & Selzer (2009a)	1	0	1	1	1	1	1	1	1
Faigley & Selzer (2009b)	1	0	1	1	1	1	1	1	1

	Element								
Book	10	11	12	13	14	15	16	17	18
Freeley & Steinberg (2009)	0	1	1	1	1	1	1	1	0
Gage (2006)	0	1	0	1	1	1	1	0	1
Goodnight (1993)	0	0	1	1	1	1	1	1	0
Goshgarian & Krueger (2009)	1	0	0	1	1	1	1	0	1
Govier (2005)	0	0	0	1	0	0	1	1	0
Hanson (2009, April 16)	0	0	0	0	0	0	1	1	0
Hatch (2003)	1	0	1	1	1	1	1	0	1
Hensley & Carlin (2005)	0	1	1	1	1	1	1	1	0
Herrick (2007)	0	1	1	1	1	1	1	1	0
Hollihan & Baaske (2005)	0	1	1	1	1	1	1	1	0
Huber & Snider (2006)	0	0	0	1	1	1	1	1	0
Inch et al (2006)	0	1	0	1	1	0	1	1	0
Infante (1988)	0	0	1	1	1	0	1	1	0
Johnson & Blair (2006)	0	0	1	1	0	0	1	0	0
Knapp & Galizio (1999)	0	1	1	0	1	1	1	1	0
Lamm & Everett (2007)	1	0	1	1	1	1	1	1	1
Leigh (2005)	0	1	0	1	1	1	1	1	0
Lunsford et al (2007)	1	0	1	1	1	1	1	0	1
Makau & Marty (2001)	0	1	0	1	0	0	0	1	0
Mauk & Metz (2009)	1	0	1	1	1	1	1	1	1

	Element								
Book	10	11	12	13	14	15	16	17	18
Mayberry (2005)	0	0	0	1	1	0	1	1	1
Mayberry (2009)	1	0	0	1	1	1	1	1	1
Meany & Shuster (2002)	0	1	1	1	1	1	1	1	0
Meany & Shuster (2003)	0	1	1	1	1	1	1	1	0
Merali (2006)	0	0	1	1	0	0	1	1	0
Miller (2007)	1	0	0	1	1	1	1	0	1
Muir & Butt (2008)	0	0	1	1	1	1	1	1	0
Munson & Black (2007)	0	0	0	1	0	0	0	0	1
NAUDL (2008)	0	0	0	0	0	1	1	1	0
Palmer & Memering (2008)	1	0	0	1	1	1	1	1	1
Phillips et al (1997)	0	1	1	1	1	1	1	1	0
Planet Debate (2009)	0	0	1	1	0	0	1	1	0
Ramage et al (2009)	1	0	0	1	1	1	1	1	1
Richards & Rickett (1995)	0	1	0	1	1	1	1	1	0
Rieke et al (2009)	0	0	0	1	1	0	1	1	0
Rottenberg & Winchell (2009a)	0	0	1	1	1	1	1	1	1
Rottenberg & Winchell (2009b)	0	0	1	1	1	1	1	1	1
Rybacki, & Rybacki (2008)	0	1	1	1	1	1	1	1	0
Shuster & Meany (2005)	0	0	0	1	1	1	0	1	0
Sinnott-Armstrong (2009)	0	0	0	1	0	0	1	1	0

	Element								
Book	10	11	12	13	14	15	16	17	18
Snider (2008)	0	0	1	1	1	1	1	1	0
Trapp et al (2005)	0	0	1	1	1	1	1	1	0
Trefethen (2007)	0	1	0	1	1	0	1	1	0
Verlinden (2005)	0	1	1	1	1	0	0	1	0
Walton (2006)	0	0	0	1	0	0	0	0	0
Weston (2009)	0	0	0	0	0	1	1	1	1
White (2007)	1	0	1	1	1	1	1	1	1
Wiese & Lewis (2000)	0	0	1	1	1	1	1	1	0
Williams & Colomb (2007)	1	0	0	1	1	1	1	1	1
Wood (2007)	1	1	0	1	1	1	1	0	1
Wood (2008)	1	1	0	1	0	1	1	0	1
Wood & Goodnight (1995)	0	0	1	1	1	1	1	1	0
Ziegelmueller et al (1995)	0	0	1	1	1	0	1	1	0
Ziegelmueller & Kay (1997)	0	1	1	1	1	1	1	1	0

Table B4 Results for each Book, General Elements 19-27

	Element								
Book	19	20	21	22	23	24	25	26	27
Barnet & Bedau (2008)	0	0	0	0	0	1	0	0	0
Bellon & Williams (2006)	1	1	0	0	0	1	0	0	0
Bennett (1993)	1	1	0	0	0	1	1	0	0
Bennett (2007)	1	1	0	0	0	0	0	0	0
Branham (1991)	1	0	0	0	0	0	0	0	0
Broda-Bahm et al (2004)	1	0	0	0	1	1	0	0	0
Burgett (2007)	1	1	0	0	0	0	0	0	0
Burton et al (2008)	0	0	0	0	0	1	0	0	0
Campbell & Huxman (2003)	0	0	0	0	0	1	0	0	0
Chaffee et al (2008)	0	0	0	0	0	1	0	1	0
Clark (1998)	0	0	0	0	0	1	0	0	0
Corbett & Eberly (2000)	0	0	0	0	0	0	0	0	0
Crossmann (2006)	1	0	0	1	0	1	0	0	0
Edwards (2008)	1	1	1	0	1	0	0	0	0
Eemeren et al (2002)	0	0	0	0	0	0	0	0	0
Epstein (2002)	0	0	0	0	0	0	0	0	0
Ericson et al (2003)	1	0	0	0	0	1	0	0	0
Faigley & Selzer (2009a)	0	0	0	0	0	1	0	0	0
Faigley & Selzer (2009b)	0	0	0	0	0	1	0	0	0

	Element								
Book	19	20	21	22	23	24	25	26	27
Freeley & Steinberg (2009)	1	1	1	0	1	1	1	1	1
Gage (2006)	0	0	0	0	0	1	0	0	0
Goodnight (1993)	1	1	0	0	0	0	0	0	0
Goshgarian & Krueger (2009)	0	0	0	0	0	1	0	0	0
Govier (2005)	0	0	0	0	0	0	0	0	1
Hanson (2009, April 16)	1	1	0	0	0	0	0	0	0
Hatch (2003)	0	0	0	0	0	1	0	0	0
Hensley & Carlin (2005)	1	1	1	1	1	1	0	0	0
Herrick (2007)	0	0	0	0	0	1	0	0	0
Hollihan & Baaske (2005)	0	0	0	0	0	1	0	0	0
Huber & Snider (2006)	0	0	0	0	0	0	0	0	0
Inch et al (2006)	0	0	0	0	0	0	0	0	0
Infante (1988)	0	0	0	0	0	1	0	0	0
Johnson & Blair (2006)	0	0	0	0	0	0	0	0	0
Knapp & Galizio (1999)	1	0	0	1	0	1	1	1	1
Lamm & Everett (2007)	0	0	0	0	0	1	0	0	0
Leigh (2005)	1	0	0	1	0	0	0	0	0
Lunsford et al (2007)	0	0	0	0	0	1	0	0	0
Makau & Marty (2001)	0	0	0	0	1	1	0	0	1
Mauk & Metz (2009)	0	0	0	0	0	1	0	0	0

	Element								
Book	19	20	21	22	23	24	25	26	27
Mayberry (2005)	0	0	0	0	0	1	0	0	0
Mayberry (2009)	0	0	0	0	0	1	0	0	0
Meany & Shuster (2002)	1	0	0	1	0	0	0	1	1
Meany & Shuster (2003)	1	0	0	1	0	0	0	1	1
Merali (2006)	1	0	0	0	1	0	0	1	1
Miller (2007)	0	0	0	0	0	1	0	0	0
Muir & Butt (2008)	1	1	0	0	0	1	1	1	1
Munson & Black (2007)	0	0	0	0	0	0	0	0	0
NAUDL (2008)	1	1	0	0	0	0	0	0	0
Palmer & Memering (2008)	0	0	0	0	0	0	0	0	0
Phillips et al (1997)	1	1	1	0	1	0	0	0	1
Planet Debate (2009)	1	1	0	0	0	1	0	0	0
Ramage et al (2009)	0	0	0	0	0	1	0	0	0
Richards & Rickett (1995)	1	1	1	0	0	0	1	0	0
Rieke et al (2009)	0	0	0	0	0	1	0	0	1
Rottenberg & Winchell (2009a)	0	0	0	0	0	1	0	0	0
Rottenberg & Winchell (2009b)	0	0	0	0	0	1	0	0	0
Rybacki, & Rybacki (2008)	0	0	0	0	0	1	0	0	0
Shuster & Meany (2005)	1	0	0	0	1	0	0	1	1
Sinnott-Armstrong (2009)	0	0	0	0	0	0	0	0	0

	Element								
Book	19	20	21	22	23	24	25	26	27
Snider (2008)	1	1	0	0	0	1	1	1	1
Trapp et al (2005)	1	0	0	0	1	1	0	1	1
Trefethen (2007)	1	1	0	0	0	0	0	0	0
Verlinden (2005)	0	0	0	0	0	1	0	0	0
Walton (2006)	0	0	0	0	0	0	0	0	0
Weston (2009)	0	0	0	0	0	0	0	0	0
White (2007)	0	0	0	0	0	1	0	0	0
Wiese & Lewis (2000)	1	1	1	0	0	1	1	0	0
Williams & Colomb (2007)	0	0	0	0	0	0	0	0	0
Wood (2007)	0	0	0	0	0	1	0	0	0
Wood (2008)	0	0	0	0	0	1	0	0	0
Wood & Goodnight (1995)	1	1	1	0	0	1	0	0	0
Ziegelmueller et al (1995)	1	1	0	0	0	0	0	0	0
Ziegelmueller & Kay (1997)	1	1	1	0	0	1	0	0	0

Table B5 Results for each Book, Decision-making Elements 1-12

	Element											
Book	1	2	3	4	5	6	7	8	9	10	11	12
Barnet & Bedau (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Bellon & Williams (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Bennett (1993)	0	0	0	0	0	0	0	0	0	0	0	0
Bennett (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Branham (1991)	0	0	0	0	0	0	0	0	0	0	0	0
Broda-Bahm et al (2004)	0	0	0	0	0	0	0	0	0	0	0	0
Burgett (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Burton et al (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Campbell & Huxman (2003)	0	0	0	0	0	0	0	0	0	0	0	0
Chaffee et al (2008)	0	0	0	0	0	1	0	0	1	0	0	0
Clark (1998)	0	0	0	0	0	0	0	0	0	0	0	0
Corbett & Eberly (2000)	0	0	0	0	0	0	0	0	0	0	0	0
Crossmann (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Edwards (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Eemeren et al (2002)	0	0	0	0	0	0	0	0	0	0	0	0
Epstein (2002)	0	0	0	0	0	0	0	0	0	0	0	0
Ericson et al (2003)	0	0	0	0	0	0	0	0	0	0	0	0
Faigley & Selzer (2009a)	0	0	0	0	0	0	0	0	0	0	0	0
Faigley & Selzer (2009b)	0	0	0	0	0	0	0	0	0	0	0	0

	Element											
Book	1	2	3	4	5	6	7	8	9	10	11	12
Freeley & Steinberg (2009)	1	0	0	0	0	0	0	1	0	0	0	1
Gage (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Goodnight (1993)	0	0	0	0	0	0	0	0	0	0	0	0
Goshgarian & Krueger (2009)	0	0	0	0	0	0	0	0	0	0	0	0
Govier (2005)	0	0	1	0	0	0	0	0	0	0	1	1
Hanson (2009, April 16)	0	0	0	0	0	0	0	0	0	0	0	0
Hatch (2003)	0	0	0	0	0	0	0	0	0	0	0	0
Hensley & Carlin (2005)	0	0	0	0	0	0	0	0	0	0	0	0
Herrick (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Hollihan & Baaske (2005)	0	0	0	0	0	0	0	0	0	0	0	0
Huber & Snider (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Inch et al (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Infante (1988)	0	0	0	0	0	0	0	0	0	0	0	0
Johnson & Blair (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Knapp & Galizio (1999)	1	0	0	0	0	0	0	1	0	0	0	0
Lamm & Everett (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Leigh (2005)	0	0	0	0	0	0	0	0	0	0	0	0
Lunsford et al (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Makau & Marty (2001)	0	0	0	0	1	0	0	1	0	0	0	1
Mauk & Metz (2009)	0	0	0	0	0	0	0	0	0	0	0	0

	Element											
Book	1	2	3	4	5	6	7	8	9	10	11	12
Mayberry (2005)	0	0	0	0	0	0	0	0	0	0	0	0
Mayberry (2009)	0	0	0	0	0	0	0	0	0	0	0	0
Meany & Shuster (2002)	1	0	0	0	0	0	0	1	0	0	0	0
Meany & Shuster (2003)	1	0	0	0	0	0	0	1	0	0	0	0
Merali (2006)	1	0	0	0	0	0	0	1	0	0	0	0
Miller (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Muir & Butt (2008)	1	0	0	0	0	0	0	1	1	0	1	0
Munson & Black (2007)	0	0	0	0	0	0	0	0	0	0	0	0
NAUDL (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Palmer & Memering (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Phillips et al (1997)	1	0	0	0	0	0	0	1	0	0	0	0
Planet Debate (2009)	0	0	0	0	0	0	0	0	0	0	0	0
Ramage et al (2009)	0	0	0	0	0	0	0	0	0	0	0	0
Richards & Rickett (1995)	0	0	0	0	0	0	0	0	0	0	0	0
Rieke et al (2009)	0	0	1	0	0	0	0	1	0	0	0	0
Rottenberg & Winchell (2009a)	0	0	0	0	0	0	0	0	0	0	0	0
Rottenberg & Winchell (2009b)	0	0	0	0	0	0	0	0	0	0	0	0
Rybacki, & Rybacki (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Shuster & Meany (2005)	1	0	0	0	0	0	0	1	0	0	0	1
Sinnott-Armstrong (2009)	0	0	0	0	0	0	0	0	0	0	0	0

	Element											
Book	1	2	3	4	5	6	7	8	9	10	11	12
Snider (2008)	1	0	0	0	0	0	0	1	0	1	1	0
Trapp et al (2005)	1	0	0	0	0	0	0	1	0	0	0	1
Trefethen (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Verlinden (2005)	0	0	0	0	0	0	0	0	0	0	0	0
Walton (2006)	0	0	0	0	0	0	0	0	0	0	0	0
Weston (2009)	0	0	0	0	0	0	0	0	0	0	0	0
White (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Wiese & Lewis (2000)	0	0	0	0	0	0	0	0	0	0	0	0
Williams & Colomb (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Wood (2007)	0	0	0	0	0	0	0	0	0	0	0	0
Wood (2008)	0	0	0	0	0	0	0	0	0	0	0	0
Wood & Goodnight (1995)	0	0	0	0	0	0	0	0	0	0	0	0
Ziegelmueller et al (1995)	0	0	0	0	0	0	0	0	0	0	0	0
Ziegelmueller & Kay (1997)	0	0	0	0	0	0	0	0	0	0	0	0

Table B6 Results for each Book, Decision-making Elements 13-23

	Element										
Book	13	14	15	16	17	18	19	20	21	22	23
Barnet & Bedau (2008)	0	0	0	0	0	0	0	0	0	0	0
Bellon & Williams (2006)	0	0	0	0	0	0	0	0	0	0	0
Bennett (1993)	0	0	0	0	0	0	0	0	0	0	0
Bennett (2007)	0	0	0	0	0	0	0	0	0	0	0
Branham (1991)	0	0	0	0	0	0	0	0	0	0	0
Broda-Bahm et al (2004)	0	0	0	0	0	0	0	0	0	0	0
Burgett (2007)	0	0	0	0	0	0	0	0	0	0	0
Burton et al (2008)	0	0	0	0	0	0	0	0	0	0	0
Campbell & Huxman (2003)	0	0	0	0	0	0	0	0	0	0	0
Chaffee et al (2008)	0	0	0	0	0	0	0	0	0	0	0
Clark (1998)	0	0	0	0	0	0	0	0	0	0	0
Corbett & Eberly (2000)	0	0	0	0	0	0	0	0	0	0	0
Crossmann (2006)	0	0	0	0	0	0	0	0	0	0	0
Edwards (2008)	0	0	0	0	0	0	0	0	0	0	0
Eemeren et al (2002)	0	0	0	0	0	0	0	0	0	0	0
Epstein (2002)	0	0	0	0	0	0	0	0	0	0	0
Ericson et al (2003)	0	0	0	0	0	0	0	0	0	0	0
Faigley & Selzer (2009a)	0	0	0	0	0	0	0	0	0	0	0
Faigley & Selzer (2009b)	0	0	0	0	0	0	0	0	0	0	0

	Element										
Book	13	14	15	16	17	18	19	20	21	22	23
Freeley & Steinberg (2009)	0	0	0	1	1	0	0	0	0	0	1
Gage (2006)	0	0	0	0	0	0	0	0	0	0	0
Goodnight (1993)	0	0	0	0	0	0	0	0	0	0	0
Goshgarian & Krueger (2009)	0	0	0	0	0	0	0	0	0	0	0
Govier (2005)	0	0	0	0	0	0	0	0	0	0	0
Hanson (2009, April 16)	0	0	0	0	0	0	0	0	0	0	0
Hatch (2003)	0	0	0	0	0	0	0	0	0	0	0
Hensley & Carlin (2005)	0	0	0	0	0	0	0	0	0	0	0
Herrick (2007)	0	0	0	0	0	0	0	0	0	0	0
Hollihan & Baaske (2005)	0	0	0	0	0	0	0	0	0	0	0
Huber & Snider (2006)	0	0	0	0	0	0	0	0	0	0	0
Inch et al (2006)	0	0	0	0	0	0	0	0	0	0	0
Infante (1988)	0	0	0	0	0	0	0	0	0	0	0
Johnson & Blair (2006)	0	0	0	0	0	0	0	0	0	0	0
Knapp & Galizio (1999)	0	0	0	0	0	0	0	0	0	0	0
Lamm & Everett (2007)	0	0	0	0	0	0	0	0	0	0	0
Leigh (2005)	0	0	0	0	0	0	0	0	0	0	0
Lunsford et al (2007)	0	0	0	0	0	0	0	0	0	0	0
Makau & Marty (2001)	1	1	0	0	1	0	0	0	0	0	1
Mauk & Metz (2009)	0	0	0	0	0	0	0	0	0	0	0

	Element										
Book	13	14	15	16	17	18	19	20	21	22	23
Mayberry (2005)	0	0	0	0	0	0	0	0	0	0	0
Mayberry (2009)	0	0	0	0	0	0	0	0	0	0	0
Meany & Shuster (2002)	0	0	0	0	1	0	0	0	0	0	1
Meany & Shuster (2003)	0	0	0	0	1	0	0	0	0	0	1
Merali (2006)	0	0	0	0	0	0	0	0	0	0	0
Miller (2007)	0	0	0	0	0	0	0	0	0	0	0
Muir & Butt (2008)	0	0	0	0	1	0	0	0	0	0	1
Munson & Black (2007)	0	0	0	0	0	0	0	0	0	0	0
NAUDL (2008)	0	0	0	0	0	0	0	0	0	0	0
Palmer & Memering (2008)	0	0	0	0	0	0	0	0	0	0	0
Phillips et al (1997)	0	0	1	0	1	0	1	0	0	0	1
Planet Debate (2009)	0	0	0	0	0	0	0	0	0	0	0
Ramage et al (2009)	0	0	0	0	0	0	0	0	0	0	0
Richards & Rickett (1995)	0	0	0	0	0	0	0	0	0	0	0
Rieke et al (2009)	1	1	0	0	0	0	0	0	0	0	0
Rottenberg & Winchell (2009a)	0	0	0	0	0	0	0	0	0	0	0
Rottenberg & Winchell (2009b)	0	0	0	0	0	0	0	0	0	0	0
Rybacki, & Rybacki (2008)	0	0	0	0	0	0	0	0	0	0	0
Shuster & Meany (2005)	0	0	0	1	1	0	0	0	0	0	1
Sinnott-Armstrong (2009)	0	0	0	0	0	0	0	0	0	0	0

	Element										
Book	13	14	15	16	17	18	19	20	21	22	23
Snider (2008)	0	0	0	1	0	0	0	1	0	0	0
Trapp et al (2005)	0	0	1	0	1	0	1	0	0	0	1
Trefethen (2007)	0	0	0	0	0	0	0	0	0	0	0
Verlinden (2005)	0	0	0	0	0	0	0	0	0	0	0
Walton (2006)	0	0	0	0	0	0	0	0	0	0	0
Weston (2009)	0	0	0	0	0	0	0	0	0	0	0
White (2007)	0	0	0	0	0	0	0	0	0	0	0
Wiese & Lewis (2000)	0	0	0	0	0	0	0	0	0	0	0
Williams & Colomb (2007)	0	0	0	0	0	0	0	0	0	0	0
Wood (2007)	0	0	0	0	0	0	0	0	0	0	0
Wood (2008)	0	0	0	0	0	0	0	0	0	0	0
Wood & Goodnight (1995)	0	0	0	0	0	0	0	0	0	0	0
Ziegelmueller et al (1995)	0	0	0	0	0	0	0	0	0	0	0
Ziegelmueller & Kay (1997)	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C
CODE BOOK

Coding Instructions

Please read these instructions thoroughly before you begin coding. Review all of the definitions and rules in the code book—the definitions and/or the criteria may have changed since the last version of the code sheet and codebook.

If you have any questions, contact Neil.

1. Confirm that the code sheet you are using has your number at the top. If it does not, check with Neil. Unlike the test coding, your name should NOT appear on the coding sheet for the actual sample.

2. Confirm that the title and author of the text you are about to code matches the title and author on the code sheet that you are about to use. If the title and author are not indicated, fill in the appropriate title and author in the blanks provided.

3. Review the text of each textbook. Use the code definitions on the following pages to categorize the content of each textbook, and answer the questions on the code sheet by circling the numbers in the appropriate boxes. Make sure to follow the "Rules" below and use the "Suggestions" to help.

4. Keep the Codebook with you as you are coding to help resolve questions about how certain elements should be counted.

Rules

1. Mark each element as "Yes" (present) or "No" (not present). Different elements require different levels of attention to be considered present. Make sure that the level of presence for the element reaches the threshold identified in the definition for that term. For example, the "Argument Theory" element requires at least one full chapter devoted to the concept to be marked "Yes." Even if a book devoted two pages (but less than a full chapter) to Argument Theory, it should be marked "No" since less than a full chapter is devoted to it.

2. For each item marked "Yes," please add either the chapter number (if an entire chapter is devoted to the item) or the page numbers where the element is present in the text. For example: "ch 3" or "p. 31-32."

3. Explicitness/Overtness. Concepts need to be EXPLICITLY discussed, not just suggested or implied. If the concept is implicit, rather than explicit, mark it "No." There must be intent and some level of overtness in order for an item to be marked. It is NOT enough for a text to use an individual example that implies a concept; it must explicitly identify the concept. For example, a text might use two examples of argument, one from a courtroom and one from a legislative debate. While this may imply that there are different areas in which arguments can be made, unless the text EXPLICITLY STATES that there are different Argument Fields, suggests that there are differences in the characteristics of arguments made in each field and is using the two examples to highlight those differences, the text would be coded as "No" for Argument fields.

4. Differences in terms. Different texts may use different terminology to discuss the same concepts. For example, some texts may use the term "Inherency" while others will use the term "Blame." Some texts may use the term "resolution," while others will use the term "proposition." As long as the text is clearly discussing the same concept, the concept should be marked "Yes," even if a different term is used. This does NOT mean that implied concepts should be marked "Yes" (see Rule #2).

NOTE: Some definitions specify that a particular term be used. If they do, it overrides this rule.

5. Different concepts with the same name. Conversely, the text may use a term from the code sheet but with a different meaning. Unless the criteria listed under the definition in the codebook are met, the term should be marked not present ("No"). For example, some texts refer to appeals to credibility (ethos) as "ethical" appeals. Though the term "ethical" is used, the section of the text would not count as a section on "Ethics."

6. "At least ONE PAGE" means that the equivalent of one FULL page, top to bottom, of text is devoted to the concept. It is not sufficient if the concept is merely mentioned on a page. If the text devoted to the concept is split between two pages, the coder should make a judgment about whether the combined space devoted to the element is the equivalent of one full-page.

7. The term "At least ONE CHAPTER" can be met in three different ways:

- the contents of at least one FULL chapter, from one chapter heading to the next are devoted to the element in question (e.g.: Chapter 12: Fallacies)
- the attention the text provides to the element is not concentrated in one single chapter, but includes the equivalent of at least 10 full pages of text devoted to the element across multiple chapters (e.g.: two full pages in chapter 1, three full pages in chapter 2, three full pages in chapter 3, three full pages in chapter 4, etc.)
- while they do not explicitly mention the element, the context of multiple chapters assumes the presence of the element or are devoted to subsets of the element (e.g.: the preface of the book indicates that the entire book is devoted to helping high school policy debaters compete more effectively, even though there is no single chapter labeled "policy debate")

8. Err on the side of "No." If you are having difficulty locating the element, or if you are unsure if it reaches the threshold for inclusion, or if you are unsure if it meets the criteria laid out in the codebook, the presumption should be that the element is not present. This is especially true if the element is not found in the index or table of contents of the book (though this guideline should NOT be considered absolute—some books do not have an index, some of the indexes that are present are terrible, and sometimes the term is listed by another name or under another concept).
[Note: This suggestion is meant only as a "tie-breaker—not to discourage you from marking items "Yes."]

9. If you have difficulty deciding, or if you have some residual question about your choice after making it, put an asterisk (*) beside your answer (just to the right of the "Chapter/Page #" column).

10. Follow the definitions and rules even if you think the coding is misleading in some way, for example:

- The definition or rule calls for a "No" even though the term seems to be highlighted
- The definition or rule calls for a "Yes" even though the section is bad, provides an incomplete description or doesn't properly/substantively deal with the concept

While you should code according to the letter of the definitions and rules, you should feel free to add an asterisk or add a note at the bottom of the code sheet explaining the issue. But, bottom line, don't worry too much about it. The researcher (Neil) is aware of situations where the coding will be misleading or fall short and will be highlighting and discussing examples of it in the final study.

Suggestions:

1. You should probably start with the table of contents and the index for each book. Most elements that are present, especially those that have a major section devoted to them, will be easy to find even without a close reading of the text.

2. You should not have to read the entire text to fill in the code sheet. You should, however, take your time to make sure you have marked each element accurately.

3. Keep in mind that some texts may use slightly different terms or may index by component or subset rather than the area that component belongs in. For example, the term "Ethics" might not appear in the index, but "plagiarism," or "distortion," or "fabrication" might, and would indicate that the textbook does, in fact, discuss ethics.

4. I recommend (but don't require) that you use a pencil rather than ink to mark the code sheets so that you can fix any mistakes that you might make.

5. Don't be afraid to say "No" (the element is not present). The code sheets are based on elements deemed important to the study, not necessarily common elements. Some of these elements may appear in FEW or even NONE of the textbooks reviewed. There are a few different types of textbooks included in the sample; some are focused on argument theory, some are focused on debate, some are focused on writing, but there is just one version of the code sheet used on all of them. This means that some categories will get very few marks.

6. Don't be afraid to say "Yes" (the element is present). Some elements are very common and may be repeated frequently. Don't be surprised if the same element comes up over and over again.

Definitions – Argument Theory Elements

Definition of Argument

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to an academic definition of argument
- The precise definition does not matter, but it should distinguish the concept from commonplace definitions of argument, e.g., by distinguishing a "verbal fight" from "claim and support"
- The definition itself does not, of course need to be a full page long, but the accompanying explanation or examples should be at least one page

Argument Fields/Spheres

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to describing and explaining the significance of Argument Fields or Argument Spheres
- "Argument Fields" means the idea that there are different fields in which arguments occur (e.g., scientific arguments require different evidence than public policy arguments, legal arguments are different from religious arguments, etc.)
- "Argument Spheres" means the idea that public, private, and technical arguments have different characteristics
- The text should actually use the terms "Argument Fields," "Fields of Argument," "Argument Spheres," "Spheres of Argument," or something very similar.

Argument Purposes

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to argument genres or purposes meaning the idea that some arguments are about persuasion, some arguments are about winning, some arguments are about trying to produce the best outcome, some arguments are about finding the truth, etc.
- For example, such a section might include explaining the difference between legal arguments, where each side tries to win, as opposed to a group of faculty members making arguments about how best to design a basic course that helps them all in follow-up courses

NOTE: This concept is not the same as argument fields/spheres, but there may be some overlap (especially since the argument field may have an impact on the purposes to which arguments are put)

Toulmin model

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to the Toulmin model of argument
- The Toulmin model must include a description of the structure of argument as containing at least the following elements: claim, data, and warrant
- It can be marked "Yes" even if qualifier, rebuttal, and backing are not mentioned (some texts include only the basic elements of the model, rather than the complete set)

Other argument models
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to a model of argument other than the Toulmin model (with "model" meaning a description of a general structure shared by all arguments)

Types/Tests of Argument
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to descriptions of types of arguments and tests of quality for those arguments
- The descriptions should be of general argument types, based on patterns of reasoning,
- Examples might include deductive, inductive, cause, sign, authority, analogy, etc.

The following DO NOT count:
- Terms specific to specialized forms of debate, such as disadvantages or kritiks in policy debate

Fallacies
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to fallacies
- The text should, at a minimum, provide a list of common fallacies, and should describe them
- Examples of fallacies might include: bandwagon, hasty generalization, post hoc ergo propter hoc, etc.
- The text should use the term "fallacies"

Types/Tests of Support/Evidence
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to describing how claims can and should be supported
- Examples of support might include: testimony, quotes from authorities, statistics, etc.
- Examples of tests might include: recency, relevance, qualifications, consistency, etc.

The following DO NOT count:
- Terms specific to specialized forms of debate, such as "cards" in policy debate

Argument theory
"Yes" means:
- The book has at least ONE CHAPTER explicitly devoted to argument theory
- Argument theory is defined as one or more of the first 8 categories: Definition of Argument, Argument Fields/Spheres, Argument Purposes, Toulmin Model, Other Models, Types/Tests of Argument, Fallacies, Types/Tests of Evidence/Support

The following DO NOT count:
- Theory specific to debate competition (conditionality, intrinsicness, the legitimacy of plan-inclusive counterplans, etc.)
- If the sole approach to theory is Ethos, Pathos, Logos, it does NOT count as argument theory

Definitions – General Elements

Plagiarism
Yes" means:
- The book has at least ONE PAGE explicitly devoted to the issue of plagiarism and how to avoid it
- The term "plagiarism" must be used

Other Ethics
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to a discussion of practices (other than plagiarism) that are/ are not ethical
- Examples might include: unethical use of evidence (e.g.,taking evidence out of context, fabricating or distorting evidence), unethical practices (e.g., lying), unethical goals (e.g., a speech encouraging hatred of a group), etc.
- The text must be EXPLICIT about the (un)ethical nature of the practices. If the text describes something that sounds like an ethical breach, but frames it as a fallacy or logical failing, rather than an ethical breach, IT SHOULD NOT BE COUNTED

The following DO NOT count:
- "Ethical" appeals. This is another name for ethos, or credibility appeals. It does not address ethics in the manner intended by this element
- A section on HOW to debate about ethics. This would fall under the "Value Debate" element

Glossary
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to a Glossary of argumentation and/or debate terms
- The glossary does not have to appear at the back of the book (for example one book includes a glossary as Chapter 2 of the text)

The following DOES NOT count:
- Definitions spread throughout the text or listed at the end of each chapter

Discussion/Exercises/Activities
"Yes" means:
- The text includes discussion questions, exercises, or suggested activities for practice
- This element can be marked "yes" regardless of the number of exercises/discussion questions or whether or not exercises are included for every section. As long as some exercises/discussion questions are present, this should be marked "yes."

The following DOES NOT count:
- Activities not specific to the concept in question (e.g.: speaking drills or an outline exercise WOULD count, but a general suggestion that students "should debate" does NOT count)

Invention/Brainstorming/Topic analysis
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to how to generate arguments in a given area.
- Examples might include: common themes and differences in analyzing propositions of fact, value, policy; brainstorming; thinking of relevant arguments; thinking of what the focus of a given topic will be, planning for research, etc.

Research
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to HOW TO conduct research, and the importance of research for well-supported arguments

The following DOES NOT count:
- A statement of the importance without suggestions for how to proceed
- A list of library resources without suggestions for how to proceed

Argument Construction
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to how to assemble and/or organize material to effectively support a position
- Examples might include: how to organize arguments for an editorial, how to outline a speech in favor of a given topic, or how to construct a 1AC, disadvantages, counterplans, etc.

Refutation
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to the idea that there will be opinions other than the speaker's own, and that these other positions need to be addressed
- Examples might include: anticipating counter arguments and addressing them in an argumentative essay, how to answer a disadvantage, how to give a rebuttal in a debate, etc.

Argumentative Writing
"Yes" means:
- There is at least ONE OF FULL CHAPTER devoted to how to organize arguments into an argumentative essay, editorial, article, or position paper (something for publication or public consumption)

The following DO NOT count:
- Outlining an argumentative speech
- Constructing briefs for another specialized debate format (e.g.: outlining a disadvantage for a policy debate)

Debate (Any kind)

"Yes" means:

- There is at least ONE FULL CHAPTER devoted to some form of debate (the particular kind does not matter)
- AND there is a description of the format
- AND there is a description of how to participate in that format
- There must be a perceptible intent to prepare students for participation in some form of debate
- If there is not a specific chapter labeled "debate," but the clear intent of the book is to prepare students for debate (for example, if the Preface for the book indicates that the purpose of all of the material in the book is to prepare students for debate competition), the book should be coded "Yes."

The following DOES NOT count:

- Just referring to, describing, or even listing the time limits for a particular format is NOT SUFFICIENT. ALL of the above criteria must be met

Policy Debate

"Yes" means:

- There is at least ONE FULL CHAPTER devoted to policy debate
- AND there is a description of the format AND how to participate in that format
- There must be a perceptible intent to prepare students for participation in policy debate
- This can be high school policy, college policy (ADA, CEDA, NDT), college NFA Lincoln-Douglas (one-person policy debate), or similar format
- If there is not a specific chapter labeled "policy debate," but the clear intent of the book is to prepare students for policy debate (as expressed in the preface, for example), the book should be coded "Yes."

NOTE: some older textbooks (pre-mid-seventies for college, pre-mid-eighties for high school) will just say "debate" and will not specify policy debate, because there was a time when that was the only format that existed. If it is clear from the context that the book is describing some form of policy debate, the book may be marked "Yes" even if the text does not explicitly specify "policy" debate. For example, one edition of Strategic Debate was written in 1968, when only policy debate existed at the high school and college levels, so it just says "debate."

The following DOES NOT count:

- Just referring to, describing, or even listing the time limits for policy debate is NOT SUFFICIENT. ALL of the above criteria must be met
- A section on analyzing propositions of policy that does not necessarily require debate

Value Debate

"Yes" means:

- There is at least ONE FULL CHAPTER devoted to value debate
- AND there is a description of the format AND how to participate in that format
- There must be a perceptible intent to prepare students for participation in policy debate
- This might include high school Lincoln-Douglas debate, CEDA value debate (pre-merger with NDT), etc.
- If there is not a specific chapter labeled "value debate," but the clear intent of the book is to prepare students for value debate (as expressed in the preface, for example), the book should be coded "Yes."

The following DOES NOT count:

- Just referring to, describing, or even listing the time limits for a form of value debate is NOT SUFFICIENT.
- A section on analyzing propositions of value that does not necessarily require debate

Parliamentary debate

"Yes" means:

- There is at least ONE FULL CHAPTER devoted to parliamentary debate
- AND there is a description of the format
- AND there is a description of how to participate in that format
- This might include college parliamentary debate (APDA, NPDA) or similar formats at the high school or middle school level (MSPDP)
- If there is not a specific chapter labeled "parliamentary debate," but the clear intent of the book is to prepare students for parliamentary debate (as expressed in the preface, for example), the book should be coded "Yes."

The following DOES NOT count:

- Just referring to, describing, or even listing the time limits for parliamentary debate is NOT SUFFICIENT. ALL of the above criteria must be met
- Debate using parliamentary procedure, such as described in Freeley & Steinberg, is actually more like student congress and should NOT be counted in this category

Other (Identify):

"Yes" means:

- There is at least ONE FULL CHAPTER devoted to some other format (not listed above)
- The chapter must reference a specific procedure and purpose
- AND there is a description of the format, procedure, or activity (there may not be a specific format with time limits)
- AND there is a description of how to participate in that format
- Examples might include: Student Congress, Rogerian argument, Karl Popper Debates, Dialogue/Discussion/Dialectic, Deliberative/Cooperative approaches (such as Makau's cooperative argument), some forms of model congress or model UN or anything that doesn't fit in one of the other categories

Audience Analysis

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to audience analysis and/or how to adapt to different audiences
- This element includes the idea that different audiences have different characteristics, and that the speaker may have to adapt their arguments, their support, or their style of presentation to effectively communicate with those different audiences
- Examples might include: how to conduct an audience analysis, a description of different judging paradigms, a description of the differences between expert judges and a public audience, etc.
- There must be a discussion or examples of HOW TO adapt in order to count (just indicating that different audiences exist is NOT enough to count). For example, listing different judging paradigms DOES NOT count, but describing how those paradigms affect how arguments will be evaluated by those types of judges DOES count

Judging/Decision-making—Paradigms

- "Yes" means:
- The book has at least ONE PAGE explicitly devoted to Judging or decision-making paradigms
- Examples might include: stock issues paradigm, policy-making paradigm, critic of argument, tabula rasa, etc.
- This can be marked "Yes" as long as the paradigms are described—it doesn't matter whether the intent of the section is just to describe, to help debaters adapt to the various paradigms, or to help judges how to frame their decisions based on one or more of the paradigms

Judging/Decision-making—Process/How to

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to actions that should be taken or steps that should be followed to judge debates, evaluate positions (collections of arguments) in order to make a decision
- This might include:
    - judging a classroom or competition debate
    - how to apply argumentation to making personal decisions
    - how to evaluate policy questions
    - any other form decision-making, as long as it is above the level of evaluating individual statements

The following DO NOT count:

- Tests of reasoning, tests of evidence
- Logical proofs, or evaluating a complex or compound argument, even if they include several statements or steps as part of the proof
- NOTE: Some texts may spell out recommended judge behavior that may be difficult to fit into one category or the other, and where they are put may depend on how they are presented. If a text simply says "Judges should flow the debate," it would count as "Judging-How To." If the text says "Judges should take a comprehensive flow and use their flow to make a fair decision," it would count as BOTH "Judging—Principles/Criteria," and "Judging-How To."

Judging/Decision-making—Principles/Criteria

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to different principles you should adopt or criteria you should use when making a decision or judging a debate
- "Principles" might include concepts like Tolerance of Uncertainty (or Ambiguity), criteria awareness, ethical concerns
- "Criteria" would include suggestions for the bases on which to make a decision (for example, describing how adopting different judging paradigms would affect how you would judge a debate, or how an approach such as Cost-Benefit Analysis can help frame a decision
- Criteria need not be those traditionally associated with evaluating argument. A text suggesting making a decision based on "Aesthetics" or "Artistry" still counts as "Yes" for providing criteria.

The following DO NOT count:

- Tests of reasoning, tests of evidence
- Logical proofs, or evaluating a complex or compound argument, even if they include several statements or steps as part of the proof

NOTE: Some texts might mix criteria for individual arguments with more general decision-making criteria. For example, Makau & Marty list criteria such as Consistency and Adequate Support (which deal with individual arguments and WOULD NOT count), as well as criteria such as Comprehensiveness and Accountability (which are ethical criteria relating to the overall decision, and WOULD count). As long as some of the elements are principles or criteria for the overall decision, the text should be marked "Yes."

NOTE: As indicated in the previous definition, some texts may spell out recommended judge behavior that may be difficult to fit into one category or the other, and where they are put may depend on how they are presented. If a text simply says "Judges should flow the debate," it would count as "Judging-How To." If the text says "Judges should take a comprehensive flow and use their flow to make a fair decision," it would count as BOTH "Judging—Principles/Criteria," and "Judging-How To."

APPENDIX D
GENERAL ELEMENTS CODE SHEET

Coder:
Text:
Author:

Argument Theory Elements

#	Element	Present?		Page/Chapter #s (Only if "Yes")
		No	Yes	
1.	Definition of Argument	0	1	
2.	Argument Fields/Spheres	0	1	
3.	Argument Purposes	0	1	
4.	Toulmin Model	0	1	
5.	Other Models	0	1	
6.	Types/Tests of Argument	0	1	
7.	Fallacies	0	1	
8.	Types/Tests of Evidence/Support	0	1	
9.	Argument Theory	0	1	

General Elements

#	Element	Present?		Page/Chapter #s (Only if "Yes")
		No	Yes	
10.	Plagiarism	0	1	
11.	Other Ethics	0	1	
12.	Glossary	0	1	
13.	Discussion/Exercises/Activities	0	1	
14.	Invention/Brainstorming/Topic analysis	0	1	
15.	Research	0	1	
16.	Argument Construction	0	1	
17.	Refutation	0	1	
18.	Argumentative Writing	0	1	
19.	Debate (any kind)	0	1	
20.	Policy Debate	0	1	
21.	Value Debate	0	1	
22.	Parliamentary Debate	0	1	
23.	Other (Identify):	0	1	
24.	Audience Analysis	0	1	
25.	Judging/Decision-making—Paradigms	0	1	
26.	Judging/Decision-making—Process/How to	0	1	
27.	Judging/Decision-making—Principles/Criteria	0	1	

If the text includes any unique elements or if you have any additional comments about the text or your ratings for the text, feel free to add them below or on the back of this sheet.

APPENDIX E
DECISION-MAKING CODE BOOK ADDENDUM

Coding Instructions
Please read these instructions thoroughly before you begin coding. If you have any questions, contact Neil.

These instructions are in addition to the previously provided codebook. You will need that code book in addition to this one to complete the code sheets.

Page and chapter rules still apply.

6. "At least ONE PARAGRAPH" can be met in two different ways:
- one FULL paragraph is devoted to the concept, from indentation to indentation (or extra space between lines to extra space between lines if that is how the book is separating paragraphs)
- the concept receives its own section heading

These additional definitions should be read in the context of DECISION-MAKING, so if the sheet asks for section on "ethics," that means ethics within the context of decision-making, not merely of a section on argumentation and/or debate ethics.

For the first section (elements 1-7), JUDGING is specific to classroom or competition debate, and DECISION-MAKING means any context for deciding other than judging. For example personal decision-making, policymaking, deciding how to vote, etc. would all count.

For the second and third sections (elements 8-23), the elements can be marked whether they appear in a section on judging, decision-making, or both.

Decision-making Definitions

Decision-making areas

Judging
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to judging debates in competition or in the classroom (as discussed above)

Attempt to translate judging into other contexts?
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to explaining how skills developed through judging debates can be applied to other contexts, both in terms of similarities and differences
- For example, a text might suggest that the process for judging a debate could help with making personal decisions, such as choosing a major, and then explain what Stock issues and disadvantages, etc. would look like in a personal decision-making situation.
- Simply stating/asserting that judging debates assists with decision-making in other contexts is insufficient. There must be an explanation, comparison, and/or example of the connection
- Simply including sections on both judging and decision-making in other contexts does not count -- there must be an explicit attempt to make the connection.

Decision-making: No context
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to making decisions, either without a discussion of context, or with the implication that context does not matter
- An example of this would be an argumentation theory book or an informal logic textbook that indicates that logic helps personal decision-making, but only considers tests of reasoning or checking for fallacies as the criteria for decision-making.

Decision-making: Executive/Administrative
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to making decisions from a position of authority and/or making decisions that affect other people
- Examples of this kind of decision-making would include a President making a national policy decision, a high school principal establishing school policy, a college department chair making decisions for the department, etc.

Decision-making: Cooperative/Deliberative
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to making decisions for a group as part of the group
- examples of this kind of decision-making include a college department committee, a co-op, some legislative bodies, a neighborhood homeowners association meeting, etc.

Decision-making: Personal
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to making personal decisions
- Examples might include: Which major should I choose? Should I buy a new or used car? etc.

Decision-making: Other contexts
"Yes" means:
- The book has at least ONE PAGE explicitly devoted to making decisions in some context other than the previous four categories

General Elements

Guidelines

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to guidelines for making a decision short of a step-by-step procedure. These could be in paragraph form or in the form of a list of tips, "do's" and "don'ts," or even a bulleted list.
- The guidelines can be about either criteria for/characteristics of a good decision, or actions that decision maker should take.
- See also Example #1: Guidelines
- The following DO NOT count:
- If a step-by-step procedure is included, it should be scored under procedure, not here.

Procedure

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to a step-by-step procedure for making decisions.
- The procedure should include the entire process, not merely how to weigh advantages versus disadvantages.
- See also Example #2: Procedure

The following DO NOT count:

- A list of guidelines, even if it includes actions that the judge or decision maker should take, unless it is in the form of a step-by-step procedure. Such a list should be stored under "Guidelines."
- A procedure for making specific comparisons, weighing issues, at the level of advantages and disadvantages or cost-benefit analysis. Such a list should be stored under Specific comparisons/ "Weighing" issues

Weighing Issues/Scenario Resolution

(also sometimes referred to as "Scenario resolution")

"Yes" means:

- The book has at least ONE PAGE explicitly devoted to how to resolve specific issues within a debate.
- See also Example #3: Weighing Issues/Scenario Resolution
- The following DO NOT count:
- If a step-by-step procedure is for the entire decision-making process included, but there is no discussion about comparing specific issues (such as advantages and disadvantages), it should be scored under procedure, not here. (If a step-by-step procedure is for the entire decision-making process included, AND there is a discussion about comparing specific issues, both elements should be scored "Yes.")
- A list of guidelines, unless it is specific to weighing issues. Otherwise, such a list should be scored under "Guidelines."

Examples

"Yes" means:

- The book has at least ONE EXAMPLE of the PROCESS of making a decision.
- The example can be from any context (judging, personal decision-making, etc.), and does not necessarily need to illustrate every step of the process (i.e., an example of calculating and weighing advantages versus disadvantages would be sufficient to count for this), but does need to illustrate the process, not just an element or two of the process.
- See Example #4: Examples

The following DO NOT count:

- Examples of specific elements of the decision-making process are not sufficient to count here. For example, if the text provides guidelines for judging, and illustrates some of those guidelines with examples, it WOULD NOT count

Exercises (specific to decision-making)

"Yes" means:

- The book has at least ONE EXERCISE explicitly devoted to practicing decision-making.
- These could be in the form of specific exercises targeting different aspects of decision-making, or could be a call for practice by judging a number of classroom or competitive debates, as long as the call is explicitly about practicing decision-making.
- A simple statement that judging debates helps improve debate skills and/or helped debaters adapt to judges is insufficient.
- See Example #5: Exercises

Specific Elements

Tolerance of uncertainty/ambiguity

"Yes" means:

- The book has at least ONE PARAGRAPH explicitly devoted to the idea of that decisions are not about absolute certainty or absolute truth.
- Examples of how this might be framed include:
    - framing decision-making as about reducing risk or improving odds (while good arguments can't guarantee success, they can increase the likelihood of success)
    - a discussion of inherent uncertainties
    - framing decision-making as not having right/wrong answers, but having better/worse answers
- See Example #6: Toleration of Uncertainty

Criteria awareness
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to the concept that decision makers need to actively consider the criteria they use before they make a final decision, and that the criteria that should be used to make a decision vary with the context of decision
- For example, the text might distinguish between judging a classroom debate and making a policy decision as an elected representative. The text might indicate that, when judging a classroom debate, competitive equity and education are the most important goals, so fairness and rules are important. Even good arguments, supported by excellent evidence, might be ignored if presented in the last speech (when the other team does not have a chance to respond). In contrast, an elected representative should be more concerned with policy outcomes, so hearing all relevant arguments and evidence is more important than concerns like "no new arguments in rebuttals."

Ethical criteria
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to the idea that decisions about appropriate criteria should be made within an appropriate ethical framework.
- For example a section on plagiarism or fabricating evidence WOULD NOT count in this context.
- A section indicating that a judge should not vote for a team that has engaged in unethical practices (such as fabricating evidence) WOULD count.
- A section indicating that a person should be ethically responsible for their personal decisions (e.g., a decision about whether or not to lie to someone) WOULD also count.

Cost-benefit analysis
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to at least a brief description of how to weigh costs and benefits (or advantages and disadvantages).
- This need not be cost-benefit analysis in the economic sense, but could include other consequences such as lives saved, lives lost, improve protection of constitutional rights, etc.

Listening/notetaking/flowing
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly advocating careful listening and notetaking or flowing in making a decision.
- For example "you should take notes or you might not remember something and therefore make a bad decision."

Presumption/burden of proof
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to how presumption factors in a decision.
- This might be framed as the status quo is innocent until proven guilty, an advocate for change has the burden of proving a need for change, etc.

Rules and/or format
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to hell rules and/or format in a particular context affect appropriate criteria for a decision.
- For example a discussion of why the judge should regard topicality as a voting issue. Or a discussion of why time limits are important in competitive debate, but may be counterproductive in many deliberative settings.

Stock issues, disadvantages, counterplans
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to how these components function in the context of a judge's decision (or decisions in other contexts)

Critical Theory/Kritiks
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to these components function in the context of a judge's decision (or decisions in other contexts)

Attempt to translate specific elements
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to how to translate specific argumentation, debate, and/or judging elements into other decision-making contexts.
- For example, the text might start with what judging a topicality debate entails, and then follow with what deciding a question of topicality looks like to a district judge deciding a question of jurisdiction or someone deciding an issue of relevance making a personal decision.

Research/ Personal knowledge
"Yes" means:
- The book has at least ONE PARAGRAPH explicitly devoted to the appropriate use of the decision-makers own knowledge in making a decision (when is it okay, when is it not okay, what is okay, what is not okay).
- For example, a chapter about judging might recommend that a judge applies their personal knowledge tournament norms, but does not apply their personal bias about or knowledge of the issues in the debate.

APPENDIX F
DECISION-MAKING CODE SHEET

Coder:
Text:
Author:

Decision-making: Types

#	Element	Present?		Page/Chapter #s (Only if "Yes")
		No	Yes	
1.	Judging – Classroom or Competition	0	1	
2.	Attempt to translate Judging into other contexts?	0	1	
3.	Decision-making: No context	0	1	
4.	Decision-making: Executive/Administrative	0	1	
5.	Decision-making: Cooperative/Deliberative	0	1	
6.	Decision-making: Personal	0	1	
7.	Decision-making: Other contexts	0	1	

Decision-making: General Elements

#	Element	Present?		Page/Chapter #s (Only if "Yes")
		No	Yes	
8.	Guidelines	0	1	
9.	Procedure	0	1	
10.	"Weighing" issues/Scenario resolution	0	1	
11.	Examples	0	1	
12.	Exercises (specific to decision-making)	0	1	

Decision-making: Specific Elements

#	Element	Present?		Page/Chapter #s (Only if "Yes")
		No	Yes	
13.	Tolerance of Uncertainty/Ambiguity	0	1	
14.	Criteria Awareness	0	1	
15.	Ethical criteria	0	1	
16.	Cost-Benefit Analysis	0	1	
17.	Listening/Note taking/Flowing	0	1	
18.	Presumption/Burden of proof	0	1	
19.	Rules/Format	0	1	
20.	Stock Issues, Disadvantages, Counterplans	0	1	
21.	Critical Theory/Kritiks	0	1	
22.	Attempt to translate specific elements?	0	1	
23.	Research/Personal knowledge	0	1	

If the text includes any unique elements or if you have any additional comments about the text or your ratings for the text, feel free to add them below or on the back of this sheet.

APPENDIX G
INTERCODER RELIABILITY

Table G1 Pairwise Percent Agreement for All Coders for General Elements

		Pairwise Percent Agreement			
#	Element	Average	Coders 1 &2	Coders 1&3	Coders 2&3
1.	Definition of Argument	96.35%	97.26%	95.89%	95.89%
2.	Argument Fields/Spheres	98.17%	97.26%	98.63%	98.63%
3.	Argument Purposes	95.43%	94.52%	94.52%	97.26%
4.	Toulmin Model	100%	100%	100%	100%
5.	Other Models	95.43%	93.15%	94.52%	98.63%
6.	Types/Tests of Argument	98.17%	97.26%	98.63%	98.63%
7.	Fallacies	100%	100%	100%	100%
8.	Types/Tests of Evidence/Support	97.26%	97.26%	95.89%	98.63%
9.	Argument Theory	99.09%	98.63%	98.63%	100%
10.	Plagiarism	99.09%	98.63%	98.63%	100%
11.	Other Ethics	93.61%	94.52%	94.52%	91.78%
12.	Glossary	100%	100%	100%	100%
13.	Discussion/Exercises/Activities	100%	100%	100%	100%
14.	Invention/…/Topic Analysis	96.35%	97.26%	94.52%	97.26%
15.	Research	100%	100%	100%	100%
16.	Argument Construction	95.43%	97.26%	95.89%	93.15%
17.	Refutation	95.43%	94.52%	95.89%	95.89%

#	Element	Pairwise Percent Agreement: Average	Coders 1 &2	Coders 1&3	Coders 2&3
18.	Argumentative Writing	99.09%	98.63%	98.63%	100%
19.	Debate (any kind)	100%	100%	100%	100%
20.	Policy Debate	99.09%	98.63%	98.63%	100%
21.	Value Debate	99.09%	98.63%	98.63%	100%
22.	Parliamentary Debate	100%	100%	100%	100%
23.	Other (Identify):	100%	100%	100%	100%
24.	Audience Analysis	98.17%	98.63%	97.26%	98.63%
25.	Judging/DM—Paradigms	99.09%	100%	98.63%	98.63%
26.	Judging/DM—Process/How to	98.17%	98.63%	97.26%	98.63%
27.	Judging/DM—Principles/Criteria	96.35%	97.26%	94.52%	97.26%

Table G2 Pairwise Percent Agreement for All Coders for Decision-making Elements

#	Element	Pairwise Percent Agreement Average	Coders 1 &2	Coders 1&3	Coders 2&3
1.	Judging – Classroom or Competition	99.09%	98.63%	98.63%	100%
2.	Translate Judging to other contexts?	99.09%	98.63%	98.63%	100%
3.	DM: No context	100%	100%	100%	100%
4.	DM: Executive/Administrative	100%	100%	100%	100%
5.	DM: Cooperative/Deliberative	100%	100%	100%	100%
6.	DM: Personal	99.09%	98.63%	98.63%	100%
7.	DM: Other contexts	99.09%	98.63%	98.63%	100%
8.	Guidelines	98.17%	98.63%	97.26%	98.63%
9.	Procedure	97.26%	98.63%	95.89%	97.26%
10.	“Weighing” issues/Scenario resolution	96.35%	94.52%	95.89%	98.63%
11.	Examples	99.09%	98.63%	98.63%	100%
12.	Exercises (specific to DM)	96.35%	95.89%	94.52%	98.63%
13.	Tolerance of Uncertainty/Ambiguity	99.09%	98.63%	98.63%	100%
14.	Criteria Awareness	96.35%	94.52%	95.89%	98.63%
15.	Ethical criteria	99.09%	100%	98.63%	98.63%
16.	Cost-Benefit Analysis	96.35%	95.89%	94.52%	98.63%
17.	Listening/Note taking/Flowing	99.09%	98.63%	98.63%	100%
18.	Presumption/Burden of proof	100%	100%	100%	100%

#	Element	Pairwise Percent Agreement: Average	Coders 1 &2	Coders 1&3	Coders 2&3
19.	Rules/Format	99.09%	98.63%	98.63%	100%
20.	Stock Issues, Disadvantages,…	100%	100%	100%	100%
21.	Critical Theory/Kritiks	100%	100%	100%	100%
22.	Translate specific elements?	99.09%	98.63%	98.63%	100%
23.	Research/Personal knowledge	95.43%	94.52%	93.15%	98.63%

Table G3 Pairwise Cohen's Kappa for All Coders for General Elements

#	Element	Pairwise Cohen's Kappa Average	Coders 1 &2	Coders 1&3	Coders 2&3
1.	Definition of Argument	0.927	0.945	0.918	0.918
2.	Argument Fields/Spheres	0.895	0.842	0.916	0.926
3.	Argument Purposes	0.853	0.823	0.823	0.912
4.	Toulmin Model	1	1	1	1
5.	Other Models	0.627	0.408	0.572	0.902
6.	Types/Tests of Argument	0.948	0.923	0.961	0.961
7.	Fallacies	1	1	1	1
8.	Types/Tests of Evidence/Support	0.925	0.926	0.887	0.962
9.	Argument Theory	0.971	0.957	0.957	1
10.	Plagiarism	0.976	0.964	0.964	1
11.	Other Ethics	0.861	0.881	0.881	0.821
12.	Glossary	1	1	1	1
13.	Discussion/Exercises/Activities	1	1	1	1
14.	Invention/…/Topic Analysis	0.902	0.929	0.853	0.923
15.	Research	1	1	1	1
16.	Argument Construction	0.79	0.873	0.8	0.698
17.	Refutation	0.874	0.853	0.888	0.883
18.	Argumentative Writing	0.981	0.971	0.971	1

#	Element	Average	Pairwise Cohen's Kappa: Coders 1 &2	Coders 1&3	Coders 2&3
19.	Debate (any kind)	1	1	1	1
20.	Policy Debate	0.977	0.966	0.966	1
21.	Value Debate	0.95	0.926	0.926	1
22.	Parliamentary Debate	1	1	1	1
23.	Other (Identify):	1	1	1	1
24.	Audience Analysis	0.962	0.972	0.943	0.971
25.	Judging/DM—Paradigms	0.944	1	0.916	0.916
26.	Judging/DM—Process/How to	0.923	0.94	0.884	0.944
27.	Judging/DM—Principles/Criteria	0.875	0.9	0.814	0.912

Table G4 Pairwise Cohen's Kappa for All Coders for Decision-making Elements

#	Element	Pairwise Cohen's Kappa Average	Coders 1 &2	Coders 1&3	Coders 2&3
1.	Judging – Classroom or Competition	0.96	0.94	0.94	1
2.	Translate Judging to other contexts?	N/D	-0	-0	N/D
3.	DM: No context	1	1	1	1
4.	DM: Executive/Administrative	N/D	N/D	N/D	N/D
5.	DM: Cooperative/Deliberative	1	1	1	1
6.	DM: Personal	0.774	0.66	0.66	1
7.	DM: Other contexts	N/D	-0	-0	N/D
8.	Guidelines	0.934	0.948	0.9	0.952
9.	Procedure	0.666	0.793	0.55	0.654
10.	"Weighing" issues/Scenario resolution	0.452	0.308	0.387	0.66
11.	Examples	0.9	0.85	0.85	1
12.	Exercises (specific to DM)	0.72	0.705	0.572	0.882
13.	Tolerance of Uncertainty/Ambiguity	0.774	0.66	0.66	1
14.	Criteria Awareness	0.607	0.473	0.554	0.793
15.	Ethical criteria	0.862	1	0.793	0.793
16.	Cost-Benefit Analysis	0.382	0.38	-0.028	0.793
17.	Listening/Note taking/Flowing	0.95	0.926	0.926	1
18.	Presumption/Burden of proof	N/D	N/D	N/D	N/D

#	Element	Average	Pairwise Cohen's Kappa: Coders 1 &2	Coders 1&3	Coders 2&3
19.	Rules/Format	0.774	0.66	0.66	1
20.	Stock Issues, Disadvantages,…	1	1	1	1
21.	Critical Theory/Kritiks	N/D	N/D	N/D	N/D
22.	Translate specific elements?	N/D	-0	-0	N/D
23.	Research/Personal knowledge	0.719	0.64	0.584	0.933

Note. N/D = Cohen's kappa is undefined for this variable due to invariant values.

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ABSTRACT

ARGUMENT CONSTRUCTION, ARGUMENT EVALUATION, AND DECISION-MAKING: A CONTENT ANALYSIS OF ARGUMENTATION AND DEBATE TEXTBOOKS

by

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Critical thinking abilities, especially the advanced critical thinking abilities required for decision-making, are important to both individuals and democratic policymaking processes. Previous studies have indicated that argumentation and debate instruction can improve critical thinking abilities, but there are reasons to believe that current approaches are not as effective at developing decision-making ability as they could be, in part because they focus too heavily on argument construction, rather than argument evaluation and decision-making. In order to test which approaches to teaching argumentation and debate best encourage decision-making abilities, researchers need to know which elements are included in current argumentation and debate textbooks. No comprehensive reviews of the content of argumentation and debate textbooks exist, however, so it has not been possible to test and compare approaches.

A content analysis of 73 currently available argumentation and debate textbooks demonstrated that: (a) most textbooks provide students with the basics of argument construction, argumentation theory, and how to evaluate individual claims; (b) many textbooks provide students with important precursors for decision-making; (c) none of the textbooks provides a comprehensive approach to decision-making that includes a structure or framework for

approaching evaluation, criteria awareness, reflexivity, and practice. The conclusions include recommendations for further research, textbook selection, textbook revisions, and for instructors to bridge current gaps in textbook coverage with their own material.

AUTOBIOGRAPHICAL STATEMENT

Neil Butt graduated from Mount Vernon High School in Alexandria, Virginia in 1988. He attended George Mason University in Fairfax, Virginia, graduating with degrees in International Studies and Communication in 1993. Neil completed his Master's Degree in Communication and Policy Analysis, also from GMU, in 2000. He has coached policy debate at the high school and college level since 1988, and has taught classes at the college level since 1993, including public speaking, interpersonal and small group communication, argumentation and debate, research methods, and rhetorical criticism.