Counterargumentation and the cultivation of critical thinking in argumentative writing: Investigating washback from a high-stakes test

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A B S T R A C T

It is generally acknowledged that counterargumentation is a key factor contributing to the persuasiveness of argumentative essays; however, recent research has revealed that students tend to neglect alternative viewpoints when responding to argumentative writing prompts. This study examines how the washback effect of a high-stakes test is associated with students' neglect of counterargumentation in their essays. A pretest—posttest design was used on experimental and control groups with 125 participants at a Chinese university. The control group received instruction in argumentative writing (which typically ignores counterargumentation in mainland China), while the experimental group received instruction in argumentation which included counterarguing and refuting. The results of the study demonstrated the efficacy of explicit classroom instruction in counterargumentation. Text analysis on posttest scripts showed that the inclusion of counterarguments and rebuttals was significantly positively correlated with the overall score of an argumentative essay using the evaluative rubric of a high-stakes test. These findings may have important implications for writing prompts and rubrics as well as argumentative writing pedagogy in China and beyond. It is proposed that counterargumentation be considered in the writing prompts and rubrics of high-stakes English tests, and included in classroom instruction on argumentative writing.

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1. Introduction

The ability to persuade via good argumentation skills has long been recognized as one of the key determinants of good critical thinking ability, not only as a scholarly pursuit, but also as a means to persuade others during casual discussions. Argumentation is the practice of stating claims and offering support or reasons to justify beliefs in order to influence others (Inch & Warnick, 2010), and good argumentation skills are required for effective communication (Nussbaum & Schraw, 2007). While the desire to seek reasons to support claims may be an innate human trait best illustrated by the string of "whys" from the mouths of young children, argumentation in writing is a much more nuanced and sophisticated skill requiring training and practice.

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Argumentation has a long history dating back to at least the ancient Greeks when Aristotle classified the means of persuasion into *ethos*, *pathos* and *logos*. However, it is particularly since Stephen Toulmin introduced his audience-based scheme of argumentation (1958), which included consideration for those who do not already agree with the writer (Ramage, Bean, & Johnson, 2010), that the rhetorical applications of argumentation have become widespread.

The Toulmin model of argumentation (1958) is composed of six elements. The first four are *claims*, *data*, *warrants* and *backing*; *data* are facts that support the *claim*; *warrants* are similar to assumptions in that they authorize the inferences that arrive with the data; and *backing* is support for the warrant. The two other elements are *qualifiers*, which place limits on the strength of the initial claim, and *rebuttals*, which acknowledge that despite the careful construction of the argument, there may still be counterarguments. It is these two final elements, *qualifiers* and *rebuttals*, that are of particular interest for this study because they underscore the importance of entertaining alternative views.

This consideration of counterargumentation is key to the present study of students' writing because recent research has revealed that despite its importance, this aspect of argumentation (acknowledging counterarguments and refuting them) is often absent in the argumentative writing of English as first (L1) or second language (L2) learners. Deficiencies in counterargumentation have also been observed in the argumentative essays of Chinese undergraduates (Qin & Karabacak, 2010). In the present study, such deficiencies are associated with the writing prompts and evaluative rubric used in a high-stakes English language examination in China called Test for English Majors Band 8 (hereafter TEM8). It is hypothesized that the washback effect of TEM8, whose writing prompts and rubric completely ignore counterargumentation, may be one of the factors undermining students' persuasive abilities in argumentative essays. The salient washback of TEM8 may have caused the lack of counterargumentation in argumentative writing pedagogy for Chinese undergraduates. If this is the case, an instructional intervention in counterargumentation could result in students including counterarguments and rebuttals in their essays, and hence improve the persuasiveness of their argumentative essays. To test this hypothesis, the present study employed a pretest–posttest design on experimental and control groups to explore the effect of an instructional intervention in counterargumentation on the persuasiveness of students' argumentative essays.

2. Literature review

In argumentative writing, the writer presents arguments on an issue in order to persuade the reader to agree with a particular point of view (Chandrasegaran, 2008; Rothery, 1996; Schleppegrell, 2004). Within such a framework, persuasiveness is defined as the extent to which a writer of an argumentative essay can convince her readers of a certain stance taken. The importance of including counterarguments and rebuttals for making written argumentation persuasive has been underscored by much research (Kuhn, 1991; Leitão, 2003; Van Eemeren, Grootendorst, & Henkemans, 1996; Walton, 2007). Kuhn (1991), for example, holds that at the core of competent argumentative reasoning is the handling of supporting elements, alternative views and counterevidence, while stating that writers' failure to "envision conditions that falsify their own theory" (p. 117) is the main obstacle to effective argumentation and critical thinking. Indeed, neglecting alternative views has been considered a common weakness in the argumentative writing of students at both the secondary (e.g., Ferretti, Lewis, & Andrews-Weckerly, 2009; McCann, 1989; Yeh, 1998) and tertiary (e.g., Nussbaum & Schraw, 2007; Wolfe & Britt, 2008) levels. The tendency of students to support only their preferred viewpoint while ignoring evidence against their own positions was first termed "myside bias" by Perkins and his colleagues (Perkins, 1985; Perkins, Farady, & Bushey, 1991). Over the past two decades, myside bias has been investigated by researchers in the fields of critical thinking as well as argumentation and found to be a characteristic feature impeding the persuasiveness of students' arguments (e.g., Baron, 1991, 1995; Toplak & Stanovich, 2003; Wolfe & Britt, 2008; Wolfe, Britt, & Butler, 2009).

A number of studies have demonstrated that the inclusion of counterarguments strengthens an arguer's position and helps achieve completeness in good reasoning, and in doing so avoids myside bias. Therefore, incorporating counterarguments and refuting them are crucial for maximizing the extent of persuasiveness in argumentative writing (e.g., Crammond, 1998; Leitão, 2003; Stanovich & West, 2008; Wolfe & Britt, 2008; Yeh, 1998). Highlighting this essential role of counterarguments was a meta-analysis of 107 studies on argumentative texts conducted by O'Keefe (1999) revealing that "two-sided" messages, where opposing arguments were acknowledged, were more persuasively efficacious than "one-sided" messages (those that ignore opposing arguments).

Three studies of particular interest to the present one had counterargumentation as their central theme; two of these focused on the type of writing prompts given to student participants, while the other focused on classroom instruction. Nussbaum and Kardash (2005), who analyzed argumentative scripts from 77 undergraduates in the United States, found that by simply including a request for counterarguments (a "goal instruction") in their prompt, students significantly increased the number of counterarguments and rebuttals compared to those students who received a bare prompt. Similarly, Ferretti, MacArthur, and Dowdy (2000), in a study at the primary school level, found that specific requests for counterarguments and rebuttals in essay prompts resulted in better persuasiveness and frequencies of these argumentative elements than in bare prompts where no goal instructions were stated. As for classroom treatment in counterarguments, Nussbaum and Schraw (2007) found that two treatments, 1) an organizer that graphically illustrated how to structure an argumentative essay and 2) explicit instruction in argumentative writing, had positive, but different effects on the production of counterarguments and rebuttals in undergraduate student writing. Specifically, the latter was found to be more effective in scaffolding students' counterargumentation ability in their study.