

Is a Conversation with a Wall Really a Conversation? A Review of Gender Issues in Recent Science Education Literature

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Introduction and Rationale

There continues to be gender disparity in the sciences, with a disproportionately small number of females involved in scientific research, especially the physical sciences. In a recent JRST editorial, Baker imploringly queried, "Where are gender and equity in science education" (Baker, 2002). This manuscript describes my effort at answering that question by looking at recent selected science education literature.

Methodology and Results

To represent mainstream science education literature, I comprehensively searched every issue of JRST (Journal of Research in Science Education), IJSE (International Journal of Science Education), and SE (Science Education) from January 1998 until the present (April 2003). This report resulted from a class assignment, which explains the short period covered by the review.

I found 68 gender-focused articles, and there was a steady annual decline in the number of gender related articles in the mainstream science education literature from 1998 until April 2003. In interpreting this finding, it is important to note that 1998 was the year in which JRST devoted two full issues to gender-related topics in science education, and that the time span of this review is quite brief. The framework that emerged for classification of articles, borrowed largely from Rennie (1998), had six categories: In papers that are *documentary* (n=17), the author seeks mainly to document and describe the gender issues in their area of study. The major difference among the next four categories is the scope at which the gender inequity problem is perceived to lie. In the *deficit* (n=1) model, the problem lies with the individual. In the *non-sexist* (n=11) model, the problem is usually to be addressed at a classroom level. In the *gender inclusive* (n=8) model, the problem lies with the curriculum, usually perpetuated by government or by textbook manufacturers. Finally, *critical feminism* (n=23), broadest in scope, looks to science itself as the source of the problem (and thus the solution). Articles classified as *other* (n=8) did not fit neatly into any of the other five categories. Critical feminist articles were the most common, though many (11 out of 23 total) of the critical feminist articles came from two 1998 JRST issues dedicated exclusively to gender issues.

Discussion

The recent decline in the number of gender-related articles is troubling on several fronts. If gender inequities in science had been resolved, and there was thus a decrease in the need for the science education community to talk about gender issues, the decline would be understandable. However, clearly this is not the case, as essentially all of the articles I reviewed are borne of a gender inequitable situation in science education that presently exists. Troubling also is that I did not need to create a category for articles reviewed called "traditional views of science." This suggests that the traditional, male-value dominated science community, so often referenced in the literature, has politely declined to even engage in the conversation. The conversation about gender issues in science education appears to be declining. The content of that waning conversation is complex and thoughtful, and contains some potentially robust strategies for addressing gender inequities in science education. But until the "other" side engages the conversation, the effect is likely to be the same as that of speaking, albeit intelligently, to a wall.

References

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