

Teaching and Learning Science as Argument

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ABSTRACT: The concept of science as argument, and the view that engaging in scientific argumentation should play a key role in science education, has become widely endorsed. The case is made here that this objective will be enhanced by broad understanding of the nature of argument skills and their directions and patterns of development. A line of research directed to this goal is described. © 2010 Wiley Periodicals, Inc. *Sci Ed* 94:810–824, 2010

INTRODUCTION

A conception of science as argument has come to be widely advocated as a frame for science education (Berland & Reiser, 2009; Bricker & Bell, 2009; Driver, Newton, & Osborne, 2000; Duschl, 2008; Erduran & Jimenez-Aleixandre, 2008; Kelly, Regev, & Prothero, 2008; Kuhn, 1993; Lehrer, Schauble, & Lucas, 2008; Lehrer, Schauble, & Petrosino, 2001; Naylor, Keogh, & Downing, 2007; Nussbaum, Sinatra, & Poliquin, 2008; Osborne, Erduran, & Simon, 2004; Sampson & Clark, 2008; Simon, Erduran, & Osborne, 2006; Zohar & Nemet, 2002). Bricker and Bell (2009) identify argumentation as a “core epistemic practice” of science and accordingly claim that the goal of science education must be not only mastery of scientific concepts but also learning how to engage in scientific discourse. If so, the goal will be attainable only to the extent that we have a well articulated and empirically supported model that identifies the essential characteristics of such discourse and the skills that are needed to partake in it. The work described in this article has had as its goal the establishment of such a model.

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Teaching And Learning Argument

**Thirumalaisamy P.
Velavancorresponding**



Teaching And Learning Argument:

Unveiling the Magic of Words: A Overview of "**Teaching And Learning Argument**"

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