Book Review
Constructing Change in America's Classrooms

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Preparing Change Agents for the Classroom: From Paradigm to Practice (Cole, 2012a) challenges teacher educators to embrace constructivism as a teaching philosophy in their teacher preparation classes in order to encourage "change agency" in teacher candidates. Cole (2012b) defines "change agency" as teachers' willingness to challenge traditional teaching methods and seek to use more learner-centered methods in an attempt to truly meet the needs of their students. The two core concepts on which the book's main argument hinge are the value of constructivism and the importance of modeling in the teacher education classroom. As used in this text, constructivism maintains that learning is the process of connecting new information and experiences to existing knowledge (Cole, 2012b). Constructivism must be distinguished from constructionism which embraces the same notion of how people learn but delves deeper into teaching methodology, arguing that learning is particularly powerful when the learner is engaged in constructing a tangible object (Papet & Harel, 1991).

The value of constructivist teaching across grade levels and subject matters has been well-established in the education literature. Ciampa (2012) found that constructivist teaching methods greatly increased

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motivation in beginning readers. Similarly, Lewis and O'Brien (2012) reported that constructivist teaching methods in an elementary science class produced learners who were more self-directed and allowed them the opportunity to engage in more authentic scientific work while Ross and Willson (2012) concluded that constructivist teaching methods improved students' conceptual understanding of middle school algebra. Hernandez-Ramos and de la Paz (2009) documented an increase in middle school students' content knowledge in U.S. history as well as growth in their historical thinking skills when a constructivist project-based learning approach was utilized. Similar positive results have also been reported when constructivist approaches were employed in high school chemistry (Ferreira & Trudel, 2012) and art classes (Hesser, 2009) and in college-level teacher education (Biasutti & EL-Deghaidy, 2012), media (Hubbard, 2012) and business courses (Smart, Witt, & Scott, 2012).

More specifically, the value of teacher educators modeling desired approaches such as constructivist methods within their own classes also has much support. Loughran and Berry (2005) argued that teacher educators must be expert in modeling and discussing their specific pedagogical practices with pre-service teachers. Such skills allow teacher educators to explicitly "connect exemplary behavior with theory" (Lunenberg, Korthagen, & Swennen, 2007, p. 592), and effectively model the teaching methods they hope to impart to their students, a concept known as "congruent teaching" (Swennen, Lunenberg, & Korthagen, 2008). When teacher education courses provided opportunities for students to reflect on constructivist pedagogy in a meaningful way, students were more likely to exhibit positive changes regarding their acceptance of constructivist methods such as inquiry-based learning (Wang & Lin, 2008).

Thus, although it has been well-established in the available literature that constructivism can be an extremely beneficial teaching approach, it is also evident that few teachers leave their teacher-preparation program armed with the tools to put this approach into action in their own classrooms. One contributing factor may be a lack of effective modeling of constructivist methods in the teacher education program. Cole's *Preparing Change Agents for the Classroom: From Paradigm to Practice* addresses this concern by providing multiple vivid examples of constructivist approaches teacher educators can use to model student-centered teaching and thus inspire the adoption of similar approaches in their education students.

This edited text, with contributions by a variety of teacher-educators across disciplines, contains two types of chapters: four chapters describe general constructivist methods for teacher education classes which alternate with three chapters that focus on integrating constructivist

methods into specific subject area methods classes. Additionally, between each of the seven main chapters, Cole includes short vignettes called Turning Point essays by classroom teachers that describe their personal experiences with constructivist teaching. While these essays are generally well-written, the high level of information included in the actual chapters seems to render these vignettes somewhat superfluous.

As an introduction to general constructivist methods, Jill Cole opens this text by arguing that the role of teacher educators is to help teacher candidates develop a "toolkit" of constructivist teaching strategies. The intention is that these approaches will help teacher candidates to become "change agents," teachers who avoid teacher-centered pedagogies and emphasize student-centered methods which most closely match the way children actually learn. This chapter contains a great description of constructivist philosophy and its implications for classroom practice. The importance of modeling desired teaching approaches within the teacher preparation program stressed in this chapter echoes the views expressed in the works of Loughran and Berry (2005), Lunenberg, Korthagen, and Swennen (2007), and Swennen, Lunenbert, and Korthagen (2008) discussed above.

In one chapter, Lembo continues exploring the constructivist philosophy in her discussion of the many forces working against teacher educators who teach courses focusing on teaching methods and pedagogy as they attempt to prepare constructivist teacher candidates. For example, teacher candidates' prior experiences as a K-12 student frequently suggest that teacher-centered learning is the most appropriate instructional method and-pre-service field experiences with more traditional teachers also function to discourage would-be constructivist educators. Additionally, faculty who teach discipline specific content often rely on more traditional teaching methods which also tacitly suggests to teacher candidates that these methods are the most viable. These forces appear to work together to discourage teacher candidates from devoting themselves to constructivist methodology for their future classes. Thus, Lembo recommends that teacher educators build on candidates' natural intellectual curiosity by consistently utilizing inquiry-based learning methodology, creating a supportive learning environment, and allowing sufficient time for social collaboration.

Continuing the broad discussion of general constructivist methods, Whitman-Smithe's chapter encourages teacher educators to utilize storytelling to promote a safe, stress-free environment and help pre-service teachers draw their own conclusions and thus, build their own understandings of the key themes. Finally, Lawton suggests that teacher educators require pre-service teachers to use a reflection rubric to guide

their journaling and lesson planning as a way to develop the habits of a reflective practitioner.

Together, these four chapters highlight the basic tenets of student-centered instruction—designing lessons that are developmentally appropriate, integrate students' prior knowledge, provide multiple authentic resources for learning, and allow students to construct their own meaning and set some of their own learning goals—and provide simple steps all teacher educators can take to integrate constructivism into their instructional repertoire.

Interspersed with these chapters are three chapters that focus on specific subject areas. Patterson illustrates constructivist strategies and techniques for the mathematics methods class and science classrooms and emphasizes that the main goals of a constructivist view of mathematics teacher should be the development of mathematical thinking and conceptual understanding which is reinforced in her discussion of constructivist science teaching which encourages students to become keen observers of the world around them as the first step in developing the inquiry tools necessary to act as a scientist. Finally, Cole explores the development of a writing workshop as a constructivist tool to help students develop and share their own writing and provide meaningful feedback to each other. The uniting thread in the teaching methods recommended in all of these chapters, as in all constructivist education, is that the students begin to assume responsibility for the quality of their own learning.

There are six "turning point" vignettes interspersed throughout the text. As discussed in the introduction by Cole, these vignettes are intended to encourage educators to embrace constructivist methods by sharing the personal, and often touching, experiences of actual teachers with student-centered instruction. For example, one teacher explains how developing a personal relationship with a troubled student helped curtail his disruptive behavior (Thompson, 2012), while another discusses how a pre-service interaction with a mentally challenged young woman ignited a pre-service teacher's passion for working with special needs populations (Stoffa, 2012). While it is possible that these inspiring accounts may move some teachers to see the value of constructivist methods, they feel somewhat superfluous in a book that accomplishes this goal through the other chapters.

While constructivism is not a new philosophy, this text provides concrete suggestions on how to integrate constructivist methodologies into the methods classroom. Many studies have shown that while suggesting active learning methods to pre-service teachers, many university methods instructors still utilize traditional teacher-centered instruction, such as lecture (Pepper, Blackwell, Monroe, & Coskey, 2012; Toy & Ok,

2012). The multiple examples of constructivist pedagogy provided in the text will be helpful to teacher educators eager to incorporate more of these strategies into their own courses. It is suggested in the text that imbuing methods courses with constructivist class activities will help aspiring teachers who take these classes to see the value of constructivist methods and will encourage them to integrate them into their own future classes.

However, the book also has two primary weaknesses. First, social studies is conspicuously absent from the subject area chapters. While social studies is mentioned briefly by Lembo, it does not receive the same attention as mathematics, science, and language arts. This is confounding as the research literature confirms that social studies is a subject that easily lends itself to constructivist pedagogy (Blaik-Hourani, 2011; Hernandez-Ramos & De La Paz, 2009; Jewett, 2011; Manfro & Coven, 2011; Sullivan, 2011). Additionally, social studies teachers comprise one of the largest segments of secondary teachers in the United States. For example, social studies is the second largest area of secondary teacher certification in the state of Florida (Florida Department of Education, 2013), and California reports considerably more full-time social studies teachers than any other subject (California Department of Education, 2012).

Second, the overall organization of the text is problematic. It would be far more logical to group all of the general teacher education chapters before the specific subject-related chapters. This suggested reorganization would easily allow for teacher educators to read the general chapters first in order to better understand constructivism as a concept, tool, and pedagogy, and then choose which of the subject area chapters most relate to their specific instruction.

Overall, I highly recommend this work for any teacher educators who desire to encourage their students to embrace constructivist teaching practices and who are eager to incorporate these practices into their education courses. Reading this book will not only inspire teacher educators to value constructivist approaches; it will provide them with classroom-tested ways of implementing them. The incorporation of more of these teaching methodologies will improve teacher education, and will positively impact students throughout our nation's education system in the future.

Reviewed Book

Cole, J. E. (Ed.). (2012). *Preparing Change Agents for the Classroom: From paradigm to practice*. Lanham, MD: Rowman & Littlefield Education, 130 pp, $50.00 (hardback), $24.95 (paperback), ISBN 978-1-610-48053-6.

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