

PRE-SERVICE TEACHERS' DEVELOPMENT OF LITERACY PRACTICES IN SCIENCE, MATH, AND SOCIAL STUDIES

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Early in the Literacy in the Content Areas course in the last semester of a two-year Bachelor of Education program, Keegan (a pseudonym), a teacher candidate in the secondary social studies stream, stated he did not see literacy as his responsibility in high school social studies courses, as he had “just too much curriculum content to cover.” A number of other teacher candidates jumped into the conversation and agreed they could not be expected to add literacy to the mandated outcomes for their students in math, science, and other subject areas.

The meaning of the term literacy has evolved to encompass its importance in subject areas outside of language arts. Many high school students struggle to read textbooks and other course materials and to write successfully in content area courses, such as math, science, and social studies. The more students read, the more proficient they become; they also strengthen their content knowledge as they read (Atwell, 2007; Gallagher & Ntelioglou, 2011). These are persuasive reasons for an increased focus on literacy in content areas in high school classrooms.

Like Keegan, many teacher candidates remember literacy as a focus of their language arts classes in high school and not as a part of other subject areas (Kane, 2011). Currently in Atlantic Canada, math, science, and social studies teachers are being asked to more fully incorporate literacy strategies into their teaching. Therefore, there is a gap between what teacher candidates know through their high school experiences and the current expectation that literacy should be incorporated into subject areas. This is one of the primary reasons for the Bachelor of Education course on *Literacy in the Content Areas* at this small Maritime university.

This course emphasizes *writing to learn*¹ and *public writing*² teaching strategies (Daniels, Zemelman, & Steineke, 2007) that can be used in science, math and social studies, such as writing breaks during lessons and multi genre projects. It also focuses on reading comprehension and critical thinking skills through activities like think-alouds and process checks. The purpose of the course is to provide teacher candidates with

¹ *Writing to learn* strategies refers to brief writing activities that focus on learning subject matter.

² *Public writing* projects are substantial pieces such as essays and term papers.

many ways to create an instructional environment that nurtures literacy and learning in subject areas (Alvermann et al, 2011).

A typical two-hour class in this course would involve teacher candidates in opportunities to practice some of the strategies they have read about and discussed, such as: making brochures about different kinds of cells for a biology lesson; drawing sketches or maps about their understandings of democracy in social studies; and a math lesson where students are given roles as different types of fractions (e.g., improper, simplified, or equivalent fractions) and other numbers (e.g., whole, mixed, or multiple sets of numbers) and asked to write a party invitation, a petition, or a riddle to another student who is in a different role. Experiencing a variety of ways to use literacy strategies to deepen understanding of concepts particular to subject areas enables teacher candidates to imagine using these kind of strategies in their teaching.

At the end of the Literacy in the Content Areas course, Keegan noted, "Upon arrival into the program my teaching focus was covering content. I failed to consider the significance of literacy. My understanding of teaching has grown. While it is important to cover curriculum outcomes, it can be done so that literacy is a significant focus."

Keegan's comment highlights the value of cross-disciplinary literacy teaching (Lee, Penfield, & Buxton, 2011) practices for early career teachers. We plan to follow a number of teacher candidates with the goal of determining implications for teacher education programs in supporting teacher candidates and new teachers as they develop their knowledge, skills, and attitudes as teachers of literacy in content areas.

References

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Biographies

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