

Self and School: Nurturing Students' Identities as Science Writers using Wikis

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The promise of education for children and young adults is much farther reaching than specific sets of skills or content knowledge. We expect students to leave the classroom with new beliefs about themselves and about their relationship to knowledge. We hope that students learn not only the ability to perform discrete tasks in subject areas, but also the propensity to apply critical skills from these domains to improve their everyday lives. The goals of education do not end with conceptual understanding; in order to positively impact students' lives, educational experiences must initiate a transformation of identity. Not only must students be able to perform new skills, and not only must they recognize the appropriate circumstances in which to do so, but they must also reconceptualize their roles in the world outside the classroom.

Writing assignments are often used as a way to encourage students to take an active role in interpreting new experiences and knowledge and to integrate multiple sources of information with their own personal worldview. Unfortunately, students often perceive a writing assignment as yet another test of content knowledge, rather than as an opportunity to communicate something and engage in critical dialog. We believe that this attitude is directly related to the kind of self-perception that is cultivated in the classroom. If students believe their writing is simply a tool for the teacher to assess what they know--and, indeed, writing assignments are seldom read by more than an audience of one--they are unlikely to view writing as a powerful creative tool.

Our research agenda suggests that authentic writing experiences are critical to nurturing students' identities as interpreters of information sources, critical reasoners and effective communicators. Authentic activities are those that resonate with students' own interests, echo the practices of experts, relate to real world events, and whose assessment reflects the ways that students learn and are expected to use their new knowledge and skills. We are investigating whether authentic writing activities will encourage a transformation of students' everyday practices when they encounter scientific information instead of simply creating a set of extraneous practices that are relevant only in the school setting. New forms of online collaborative writing have the potential to bridge everyday and formal learning environments. In order to provide an environment in which students can pursue matters of personal interest, receive feedback from others, and think critically about the many online resources they already use, we are designing a wiki community that can supplement existing classroom activities. Students (and other community members) will author articles about science topics, evaluate online resources, and assess the work of peers as they build a public library of science resources. As a result of participating in this online community, we expect to find alterations in students' self-perceived roles with respect to learning and knowing in the sciences and a greater tendency to think critically about the information they find in a variety of online settings.