Foreword

With their book, Mary Grassetti and Silvy Bookby provide a valuable contribution to education, sharing a myriad of perspectives for how and why technology should and can be authentically integrated into classroom instruction. Why focus on such a methodology? Why should it be deemed valuable?

Clearly many technologies have become part of our everyday lives. For example, recently, I was walking my dog on a Saturday afternoon and, Joe, a neighborhood kid came up to me and excitedly asked, “Hey, did you see me on Facebook for St. Baldricks? Did you see me?” I didn’t get a chance to answer before he said, while racing his hands across his reddish blond buzz-cut, “Feel my hair! Feel my hair!” I complied, and he said, “Isn’t it cool? I donated my hair to help kids with cancer! I’m going to do this again next year!” He then raced off to play kickball with his friends.

Joe’s story highlights that children have much to tell us, including what they value and can contribute to their world. Joe’s excitement was overflowing, and his act of kindness, and those of others, had been spread throughout the community on Facebook!

Facebook, Twitter, texting, email…the list of recent communication technologies is endless. Yet, sadly, in today’s schools, students’ voices are quieted and their contributions are greatly limited, and their use of technology, which could empower student voices and increase their abilities, is often nonexistent. Walk into any public school classroom and you will most likely see students sitting quietly at desks in rows, listening to a teacher.

Technology is not about computers and other instruments, but “about how we use them and what we find out when we do” (Fellows & Parberry, 1993). Along with communication, we can use technologies to compose ideas; record observations; make precise measures; design and construct structures and tools; create art; and gather information. Today, we are able to quickly acquire up-to-date information on the Internet, as we try to answer the questions that come to mind about current events, historical facts, places and locations. We can learn about the kinds of birds that we see and hear, the weather that is approaching—there’s an app for that! Technological tools allow for detailed and precise measurements (height, speed, light intensities, pH, etc.) and the creation of graphs and tables based on these measures. How might students use such technologies to better understand what they are investigating and communicate findings to others?

From personal experiences, today’s teachers may be knowledgeable about how to use some technologies, however they may not know how use them to aid students in their learning. As a science teacher educator, I believe that it is important to model for teachers a way of teaching that they can bring to their classrooms. It is not enough to tell teachers about technology integration, educators need to experience how their own science learning is enhanced with technological tools and so, how it could be useful to their students.
At my first university position, a graduate student offered to support my learning of new technologies and the use of them in my science methods course. As a result, preservice teachers’ communication of their science investigations of plant growth included rich, detailed descriptions—including graphs, tables, photographs and drawings—that they easily shared with peers via presentation software. With funding, I was later able to add probes to the technological tools used by my students and to employ a support person to help me.

My research and experience has shown that once teachers (like myself) are provided with professional development, see the effectiveness of an approach with their students, and are provided with ongoing support, they work feverishly to incorporate new methodologies in their classroom practices (Davis, 2003).

The chapters Grassetti and Bookby have included in this book provide teacher educators and classroom teachers with a fertile field of ideas for what might work to strengthen their students’ learning. It is a timely contribution! As it is, new and evolving national and state standards call for continued use of technologies to foster children’s learning. Keeping educators abreast of what they may integrate effectively into their instruction to increase students’ learning is of vital importance.

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REFERENCES
