

curriculum, bring in outside connections, and ultimately enhance student learning with high-quality STEM instruction.

Critical Analysis

Overall, Buckner and Boyd do a terrific job at presenting ideas logically for easy implementation; they also provide a self-check rubric to help leaders evaluate how well they are creating a STEM culture through rich and rigorous learning experiences. Another helpful addition in the book is “10 Key Questions to Assess Your Learners’ 21st Century Skills”; these questions allow administrators and staff to analyze the implementation of professional development techniques and critique what is working and what is not.

There were two areas of the text, in my opinion, that could have been expanded. First, the authors could have expanded on—especially with mentioning the need for STEM education throughout all grades—how to create a STEM culture at the elementary level. The ideas throughout the book are specifically written for middle and high schools, and thus exclude almost half of a student’s education. If there is such a push for STEM education to be included in all grades, why would the authors exclude how to implement a STEM culture at the elementary level? Another area in which the authors could have expanded on is how educators individually can create a STEM culture within their classroom. The book is geared toward administrators or school leaders and how they can establish a STEM culture, but it does not detail how educators can begin the process themselves. There are situations when an administrator may not be on board with implementing STEM or even the possibility of working in a small school where such an undertaking is not feasible.

Conclusion

This fifty-two-page book is a quick, easy to read, and provides needed information for middle and high school administrators or school leaders who want to focus on creating a STEM culture in their school. A STEM culture consists of having a safe an open dialogue between all parties involved to share ideas, expand learning, and to create new opportunities for students. It is also necessary that all individuals involved, whether it is staff members, outside professionals, or students, understand the goals and expectations of the STEM culture being created. The creation of a STEM culture will not happen overnight, nor will it be an easy task. Administrators and school leaders are going to have to work alongside educators guiding and supporting them in what will be a challenging and time-consuming process.

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