The Future of Education: Are We Ready?

What are some specific thinking tools you like to use? How can you extend your repertoire of such tools?

It is imperative for teachers to address the needs of contemporary learners. Ellen White stated: "It is the work of true education . . . to train young people to be thinkers, and not mere reflectors of other people's thought."[1] This marked shift from simply acquiring facts to thinking and generating knowledge is one characteristic of a contemporary learner.

What else do we know about contemporary learners that has an impact on their development as thinkers? We know they are living and growing in the Information Age. We know they are often connected to other people and/or organizations using networks, media, and digital tools. We know they need to be professional learners to succeed in a world that changes rapidly. These factors prompt us, as professionals in the field of education, to challenge assumptions we hold about curriculum, instruction, and assessment. Dr. Heidi Hayes Jacobs and I have worked together to describe some of the impacts on education and how we look at contemporary learners based on these observations by authoring several resources, presenting workshops, and founding support systems for teachers and students such as Curriculum21 (Hayes Jacobs) and Tomorrow's Education Network (Alcock). This article explores some of our observations and shares what educators can consider as we all prepare to teach contemporary learners.

The Information Age

Today's American education system was created in 1892 by the Committee of Ten in Saratoga Springs, New York.[2] They came together to face the challenges in a new and growing industrialized world. The council realized they had to upgrade the agricultural model to prepare children for their future—one that was so different that it would challenge the very structure of the education model at the time. Instead of a single multiage classroom, they would sort children by age. Instead of the day being organized into large chunks of learning time, it would be neatly divided into periods separated by bells to prepare learners for the factory. Instead of developing basic skills in all learners until they showed some degree of mastery, the school would design tasks that would be used to distinguish learners who performed well quickly from those who did not or who took longer to learn.

Thus, a sorting method was established to be certain that "A students" would be qualified for higher levels of leadership in the industrialized world. The 100-point scale and the policy of averaging grades were embraced. Not long thereafter, in 1916, standardized tests were created to help find talent in the learner population and earmark those students for future opportunities to lead and succeed. This is the legacy of the industrialized model of education. It is time for a new model—one that is dedicated to preparing learners for a place in the Information Age.

This new model will have to meet the different needs of contemporary learners as well as the requirements of an information-saturated society and job market. Finally, it will have to prepare learners to think, communicate, and take action in a globally connected world. A model like this will shed the structures of both the agricultural and industrial models and embrace or invent new forms and structures.

BY MARIE ALCOCK

School Program Structures

In her book *Curriculum21: Essential Education for a Changing World,*[3] Heidi Hayes Jacobs describes four interconnected program structures that educators can use as they prepare contemporary learners:

- Schedule (long-term and short-term)
- Grouping patterns of learners (institutional and instructional)
- Grouping patterns of adults (multiple affiliations)
- Space (both physical and virtual)

The current policies, practices, and habits we have surrounding these program structures largely determine the ability of a school to respond to the needs of the contemporary learner. "To move our school structures into more open, fluid, and correspondingly inventive forms, we need new forms, not reform."[4] We recognize that we cannot simply "tweak" or "adjust" our industrial schedule, groupings, or even buildings to meet the needs of the 21st century. To think in fresh ways about these structures can open doors to innovative ideas and new models of schools for the Information Age.

What will these models look like? Some models may have spaces that are not defined as "classrooms" but rather defined by the type of learning that occurs there. Teachers will move groups of learners between spaces without having one space being specifically "theirs" or for certain "grades." The spaces might be called direct instruction or lecture spaces, inspiration spaces, maker spaces, and motivation spaces. Teachers will identify the kind of thinking they want the learners to develop and then plan to use the space designed to support that kind of thinking. Teachers will schedule the lecture space in the same way they schedule computer labs today. The notion that one box-shaped space can serve all the different types of thinking we are working to develop in learners limits and frustrates educators functioning within the current model.

Some models may need to have both physical and virtual space available for learning 24/7. For example, learners may experience or complete half of their program online and half of their program in garages as they build prototypes for a local oil refinery. Using space to facilitate connections and collaboration on processes that require a team, while using virtual space to connect around questions, networks, and organizational tools or apps is both logical and cost effective. An Information Age model of education can support learners as they develop the skills to self-navigate their learning, become media makers and media critics, as well as innovative designers.

Some models may develop schedules that simply move from a morning program to an afternoon program, and learners will dedicate time to granular skills development (skills such as critical thinking, collaboration, and self-management), as well as larger quest-based or project-based learning. The development of questions worth learning about will be collaboratively co-created by learner and teacher. The meeting of standards and passing of standardized tests will be a byproduct of an engaging and rich curriculum experience. In contrast with the current system, neither student nor teacher will know the outcome of the learning experience as it responds to the information found and the connections made along the way.

This notion—that a teacher must know everything before the learner does and must plan the learning experience completely since the learners will simply obey the teacher and learn what is delivered—has frustrated both teachers and learners. A pre-planned learning experience that fits all the needs and levels of students in a classroom is no longer the norm; in fact, it is not even feasible. The antiquated model based on these notions cannot keep up with the vast amount of information that is readily available to learners today.

It is clear that teachers do not need to know all of the information before students do. Rather, they need to model the learning process of how to learn and fail properly. Because failure is a basic and intricate part of the learning process, it is important that learners know exactly how to do it well and avoid the negative behaviors associated with failure such as blaming, giving up, and cheating. Teachers can model this in a curriculum where they are not expected to know everything first, but rather strive to design questions and learning experiences where they can model professional learning and exactly how it should be done. Professional development and training designed to assist teachers in learning how to model these practices is the path to developing lifelong professional learners who are prepared for the Information Age.

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Dr. Alcock has coauthored with Heidi Hayes Jacobs, Debbie Sullivan, and Ann Johnson, the Live Planner Book, Mapping to the CORE: Integrating the Common Core Standards with Your Local School Curriculum, *published by Solution Tree in 2012. She has also coauthored, with Bena Kallick, "A Virtual Continuum for Thinking Interdependently" in A. Costa and P. O'Leary, eds.,* The Power of the Social Brain: Teaching, Learning, and Using Interdependent Thinking, *published by Teachers College Press in 2013. For more information on papers and articles on curriculum mapping, gaming, leadership, and organizational change, visit http://www.lsalearning.com. Dr. Alcock writes from Lincoln Park, New Jersey.*

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4. Ibid., p. 62.