Curriculum Development in the 21st Century

Mary M. Ernsberger

American InterContinental University Online
Abstract

Before making plans for the future, it is important that one looks at where we’ve already been. In this essay, theories in curriculum development from the early part of the 20th century are reviewed in order to provide a foundation upon which 21st century curricula can be built. New theories, from the latter part of the 20th century, on learning styles, cultural diversity education, curriculum mapping, and alternative applications of learning materials and exploring the use of philosophy to bring new light to old concepts are discussed. Finally, the author’s thoughts on how these concepts could potentially fit together and form a framework on which curriculum for the 21st century could be designed.
Curriculum Development in the 21st Century

In order to move forward and address the needs of curriculum development in the 21st century, it is necessary to analyze what has gone before. Analysis allows a closer look at what areas have or are currently working in a program, what areas failed to provide a viable solution to the original issue at hand, obvious or potential gaps in modes of presentation, assessment or evaluation and a clear opportunity for change. This essay hopes to present a comprehensive view on a potentially valid curriculum path focused on elementary and secondary aged learners, more specifically on Grades 3-5, 6-8 and 9-12. The path leads to a student-centered, cooperative, integrated learning environment that respects the contributions of its teachers and students alike.

The analysis begins with Ralph W. Tyler and his Rational Linear Approach to curriculum development. Much of what Tyler presented is still in use today following the enactment of the No Child Left Behind (NCLB) legislation in 2002. Tyler’s perspective approaches curriculum theory from both a theoretical aspect, as a body of knowledge to be transmitted, and as a product, or an attempt to achieve certain ends in students (Smith, 1996, 2000). The primary focus on outcomes or meeting specific learning objectives has led other curriculum theorists to label the theory as too strict in that it did not allow teachers the freedom to make adjustments to meet student needs (Marsh & Willis, 2007). Tyler recognized that the source of knowledge came from more than one area. He recognized that learners, the surrounding community and specialists in the subject being taught were all able to contribute valuable input into developing curriculum. Tyler’s vertical and horizontal organizational theories appear to be part of the foundation for more recent philosophies on learning like constructivism and integrated learning. Vertical organization refers to the building of knowledge or where each individual learning
experience builds up or adds to what was learned in the lesson before it. Horizontal organization happens when a new learning experience is reinforced by learning experiences in other subjects like when a teacher can take information from a history lesson on the gold rush and apply it to the chemistry lesson on the constituents of gold. The product end of Tyler’s perspective refers to the use of scientific measurements to determine whether learning has actually occurred. With the enactment of the No Child Left Behind Act, the United States government has identified the need for states to measure whether learning is taking place in their schools and at what level, in exchange for federal funding. The state standards that have resulted appear to have taken student contribution out of the classroom. In exchange, teachers have taken the stage and are now responsible for pouring enormous mounds of information into their learners just so the learners can recite it back in the form of standardized tests. The end result is that students leave high school poorly prepared for either the work force or the collegiate environment. After 10 years, consensus among many states is that the time has come to look at other options for curriculum development to fill in the gaps NCLB has left learners with.

Following Tyler, Decker Walker stepped in with his platform for curriculum development. Walker referred to his plan as a naturalistic model. He stated that better curricula could only be developed if the individuals involved understood the complexity of it (Smith, 1996, 2000). Walker called it a process of deliberation which really is license for individuals to gather together and argue over who has the best idea and who knows how to make it work better than anyone else. Walker conducted experiments to show his process would work, however, most were large scale projects with substantial funding and lots of time. The process failed to address the actual implementation of the curriculum, any type of evaluation to determine whether
it was successful or ideas on how to incorporate changes if it was not working. Curricula freedom came in the form of Elliot W. Eisner.

Eisner approached curriculum development as an artist would approach a painting, maintaining that there are many ways that learners can construct meaning from the same experience. He stated learning is a process and the steps did not need to be taken in any particular order (Marsh & Willis, 2007). Eisner stated learning occurred when students, teachers and knowledge interacted with each other. These conversations lead to continuous evaluations and adjustments until all parties involved can reach the required outcome. In Marsh & Willis (2007), Grundy described it as an active process that allows for planning, acting and evaluating leading to an interrelated experience within the process. A fair comparison might be the teacher as a gardener and the students as the different plants growing in the garden. Each one beautiful and unique in its own way and yet an interconnected process was needed for their growth. Teachers must be the cultivators. They must grow wisdom and harvest meaning making within their classroom if their students are to flourish. But what of the influence of the growing medium (school philosophy) and the weather (community)? Eisner referred to this as the null curriculum (Smith, 1996, 2000). The influence the environment in which learning takes place has on the learning process. Eisner understood that the most subtle things, like how the information was presented, the types of assessments used, social and teacher relationships or the organization of classes can have a big influence on what type of learning happens or knowledge is retained for future use. Several theorists have taken Eisner’s philosophy on curriculum development and expanded it into alternative learning theories. Howard Gardner is one such person.
Gardner’s theory of multiple intelligences identifies eight unique ways of learning (Armstrong, 2003). He recognized that most curricula were prepared for those with a linguistic learning style. A typical school day continues to revolve around reading, writing, memorizing and reciting. Eisner stated curriculum developers should consider the limitless ways reality can be viewed along with a students’ right to choose how to modify their view. He stressed the need for a variety of learning opportunities specially on changing goals and content into actual learning events that are of importance to the students in the class. Eisner’s suggestions included the use of cross-curricula organization of content to build on the learning experience, which is similar to Tyler’s horizontal organization theory. Eisner’s terms of educational imagination and transformation takes the developer back to the concept of learning artistry providing freedom for teachers to create a variety of meaningful learning experiences for students.

If students are unable to find meaning in their classes they will simply check out. Marsh & Willis (2007) remind us of Gardner’s statement regarding a school’s responsibility to provide learning experiences that develop spatial, bodily-kinesthetic, musical, interpersonal, intrapersonal and naturalist intelligences. An open curriculum can provide these types of opportunities for all students. Eisner did not have it completely right, in my opinion, but then again no one has. But utilizing parts of his theory would provide a good foundation upon which an equitable curriculum could be developed. This is where I would begin the process of curriculum development for the 21\textsuperscript{st} century.

Curriculum development is a unique process that may be different for each school within a school district. However, I believe that the creation of guidelines that allow for the incorporation of learning opportunities from a variety of different media, technology, and perspectives could be utilized by just about every state. The biggest drawback to this plan is the
current use of standardized testing, which do not account for unique learning styles or opportunities. There are already a number of authors who have written books which have addressed the ability to conduct valid assessments, even those who have gone so far as to provide lesson plans and assessments that recognize each student’s original genius. These could replace the standardized testing materials. Dr. Mel Levine (2002) stressed the importance of ongoing teacher training opportunities to enable them to be able to identify students who are struggling with the way information is being presented or how they process it. He refers to our society’s need to label children who are struggling in the classroom. This practice would have to stop. Many students just need a teacher to believe in them and their ability to learn. Schools are encouraged to label students with disorders in exchange for additional funding. This is another practice that would be eliminated from my curriculum design. A little patience goes a long way. In Eisner’s reference to teachers cultivating learning in their classrooms, he reminds us that not all teachers are able to make the change to this new type of thought (Marsh & Willis, 2007). Classroom monitoring would have to take place to ensure that teachers who need additional training in these new techniques are identified as soon as possible. Additional teacher training in recognizing cultural diversity would be part of the curriculum design as many teachers are unaware of how much of an asset these differences can be in lesson presentation. Eisner referred to student involvement in the design process and this is an area I fully support. From my experience, students want to be actively involved in the learning process. They want to be heard, to contribute what they know and be recognized for their strengths instead of labeled for their weaknesses.

Ryken (2009) refers to the use of visual imagery in mathematics education. She stated that visualization can be thought of as both a process and a product of creation and interpretation
that can be used for the purpose of communicating ideas and advancing understanding. She describes it as an analytical reasoning process central to the discipline of mathematics. The use of visualization would be especially effective for those whose strength lies in the spatial learning arena. The majority of schools fail to recognize the benefits of alternative methods of learning as modes of reasoning. My approach to curriculum development would most certainly take advantage of them, encouraging their use on a daily basis in each and every classroom. Eisner referred to the inability of some teachers to make the adjustment to some of these ideas and that was referenced earlier when teacher training was discussed, however, Ryker (2010), too, referred to the frames of reference that teachers bring with them into the classroom. She stated that, “Reflection is seen as a key component of learning and changes in beliefs and knowledge are considered evidence of teacher learning” (p.350). The recruitment of teachers willing to explore this new type of curriculum planning would be essential to its success. Teaching and learning go hand in hand between student and teacher and this relationship should be encouraged.

Another piece of the puzzle in curriculum development understands how to relate the material to the students in the classroom. Fitchett, Starker & Good (2010) present an exciting qualitative study they completed that explored the use of a Culturally Responsive Teaching model (CRT) in the teaching of social studies. Their conceptual CRT model reminds readers of the loss of valuable input that culturally diverse classrooms bring to secondary social studies. Many “low-performing” schools are very culturally diverse. Thus far, the answer has been to throw more good money after the bad toward programs and curriculum that are not working (Blueprint for Reform, 2010). Implementing a program like the CRT model could change the way that curriculum is developed in areas other than just social studies as well as how teachers
are trained in these schools. This model promotes a student-centered learning environment which would be primary to any curriculum plan I would develop.

One more principle I would include in my curriculum development plan would be the use of Communal Philosophical Inquiry (CPI) in secondary education. By encouraging students to question concepts that have previously been presented as fact, teachers are helping them build their higher-order thinking skills. With this understanding, textbooks no longer become fact filled materials, instead they become what they have always been, and narratives of someone’s perspective that was not alive when most of the incidents took place. And terms that were once thought to only apply to one disciple are suddenly open for discussion relative to a variety of concepts (Kennedy & Kennedy, 2011). Imagine an elementary math class where the teacher poses the question, “What would the world look like without numbers?” Suddenly a child who previously hated math and had no clue how they would ever use the concepts they were being forced to learn is brought to attention. What if you asked him to describe his idea of a world without numbers? He suddenly no longer has a birthday, or a watch, or money, or a shoe size. The list could go on and on. The point is, as a teacher utilizing CPI in your classroom, you have brought numbers to life and created an interest where none existed before.

Finally, there is the need for tracking any new curriculum to see if it is being utilized as it was intended and whether schools are finding success in its implementation. Both Hayes-Jacobs (2012) and Hale (2012) provide information and training on what is called curriculum mapping. This process allows the tracking of curriculum from inception to implementation to evaluation, allowing for changes from the district level down to the individual student level. Records on the system are kept in real-time allowing constant review of what has been taught in each class, how well it worked, what changes need to be made, where the gaps in teaching are and whether the
same things are being taught over and over (Hayes-Jacobs, 2012). Curriculum maps allow a curriculum developer to utilize the standards that are currently in place as a platform they can build on with plenty of freedom for each teacher to do what they do best – teach (Hale).

So my theory for curriculum development would include all of the above, like a jigsaw puzzle with each piece creating a valuable whole model for curriculum planning. The steps for putting this together would be similar to that of the ADDIE model which allows for Analysis, Design, Development, Implementation and Evaluation. Marsh & Willis (2007) referred to the use of Planning over Analysis and added Change to the end of the model in effect making it a PDDIEC model; however, in the ADDIE model, the analysis step includes determining where the gaps are and plans to fill them are part of the design process and the Evaluation step includes change considerations, as well as the use of a proto-type for immediate feedback prior to full implementation.

The value in my curriculum development model would be in the process of providing whole child education for each child regardless of their learning strengths and weaknesses. I believe, ultimately, that is the goal of anyone in this field.
References


