

Criteria for Selecting Era 3, 21st Century Outcomes Curriculum Materials*

By Elliott Seif and Frank Champine ¹

The development of curricular programs that meet the demands of a 21st century, Era 3 education is a complex process that requires a thoughtful, on-going curriculum renewal process. Unfortunately, many districts do not take the time to develop a careful process for curriculum renewal that supports 21st Century teaching and learning¹

One of the most helpful tools to have in an effective curriculum renewal-development process is a materials and textbook selection process that promotes the selection of Era 3, 21st century teaching and learning materials. Developing an effective materials/textbook selection process is important, because curriculum materials and textbooks often help to determine what teachers are able to do and are likely to do in the classroom. They can either support or undermine an Era 3 curriculum approach.

A number of criteria are described below that can be used for selecting effective 21st Century, Era 3 curriculum and textbook materials:

Criteria #1 –Do the materials focus on core big ideas and/or essential questions?

Effective 21st century curriculum materials and textbooks are focused around a few key ideas that allow for a teacher to concentrate learning and create in-depth lessons. The materials usually identify “big ideas” developed through the materials and often include essential questions for each chapter or unit. Unfortunately, many materials have a long list of goals, with a limited focus on big ideas and/or essential questions. Some materials also incorporate questions as goals, but write a long list of questions that are not really essential in nature (they focus on factual information).

Look for the extent to which the materials identify a limited number of big ideas – concepts, themes, issues, etc. – that promote student understanding, and include provocative essential questions around which knowledge is examined. Look for these big ideas and essential questions to truly limit the number of items that are studied and learning, and allow for indepth learning and inquiry development. Be aware that these big

¹ This materials selection process was adapted by Elliott Seif from one developed by Frank Champine, former K-12 social studies supervisor for the Neshaminy School District, and elementary and secondary teachers in the Neshaminy School District, Langhorne, Pennsylvania.

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ideas may be explicitly stated but can be also implicitly developed within the materials and textbooks.

Criteria #2 – Do the materials require learners to learn and use a variety of Era 3 inquiry and investigative skills?

Effective Era 3 materials constantly ask students to learn and use five key inquiry and investigative skills. Students are both provided with and develop essential questions and core understandings, search for, find, evaluate and process information and data, think deeply and reflectively by interpreting data and giving opinions backed by facts, applying their knowledge to new situations, explaining solutions to problems, giving presentations, writing frequently in many different formats, and so on. These skills are continually woven and embedded into the fabric of the materials through both instructional strategies and assessments.

There are also ample opportunities to both learn and use a variety of high-level processes and skills, such as research and scientific inquiry, strategic reading, the writing process, problem-solving and decision making, and creative thinking.

Look for continual instruction and assessment opportunities for students to learn and use the five critical Era 3 skill areas– to be able to ask questions, define problems, search for and process information, explain, interpret, apply, give perspectives, empathize, present results, communicate often and communicate effectively-reflect on their own learning and growth. Also look for ample opportunities to learn and to use high level processes and skills, such as research, scientific inquiry, strategic reading, writing, problem solving and decision-making, and creative thinking.

Criteria #3 – Do the materials include valid and varied assessments - both traditional and performance-based – that support the application and transfer of knowledge and skills?

Many materials vary in the nature and types of suggested assessments. However, it is rare to find materials that incorporate both traditional multiple choice, true-false, sentence completion assessments along with more open-ended and thoughtful assessments, such as writing prompts, performance tasks, project results, and self-reflective journals. Also – many assessments included with curriculum materials are not valid in measuring the goals stated in the materials, often because a different committee from the textbook developers developed the assessments apart from the goals and text of the materials. Few materials examine how to incorporate formative assessments that help students to achieve success over time. And relatively few assessments enable students to apply and transfer learning to new and novel situations, in order to demonstrate their understanding and consider how learning applies to real life situations.

Look for a variety and balance between traditional assessments, performance tasks, and self-reflection activities, and between summative and formative assessments. Look for

the validity of the assessments – the connections between the assessments and the goals of the materials. How do assessments help students to apply and transfer learning in order to demonstrate understanding and apply learning to new and novel situations?

Criteria #4 –Are the materials focused around interactive and engaging activities?

One measure of a powerful curriculum can be found in the nature of the suggested activities. Are the activities designed to insure successful mastery and understanding (the “effectiveness” of the activities)? Do they help students to engage in inquiry into essential questions? Do they help students to explain and explore their understanding on a regular basis? Are many of the activities “constructivist” in nature – that is, require continual interactions between teachers and students and require students to “make meaning” through the activities? Do the activities tend to “hook” students and hold their interest?

Look for activities that promote in-depth learning, help students master understanding, inquire into essential questions, explain and explore their understanding, promote interaction between teachers and students, motivate student learning, and help students make meaning.

Criteria #5 – Do the materials continually revisit and refine big ideas?

An effective Era 3 curriculum is coherent. It revisits the same ideas and develops them over time in more complex ways. For example, an effective mathematics curriculum will examine spatial relationships in more complex ways as students progress through the grades. A good understanding based US History textbook will examine the same big idea, such as “the struggle to preserve and enlarge democracy”, through multiple units so as to enhance and refine student understanding. This revisiting and refining of ideas over time are often called “learning progressions”.

Many curricula say they are coherent, but in reality there is little repetition of the same ideas and progression of learning growth over time. Look for materials that use big ideas and questions to develop ideas in greater depth and inquire into them over time (learning progressions). Examine the coherence of the materials by determining how well they revisit, refine, and reflect on ideas and/or explore the same or similar questions over time.

Criteria #6: Do the materials reflect a “developmentally appropriate” approach to student learning?

Effective curricula appropriately challenge students and provide rigorous academic learning that are developmentally appropriate. For example, reading level formulas are **not** used to produce sterile reading materials below the level of student understanding. Difficult words are **not** taken out of the text solely because of their difficulty. Where appropriate, the materials encourage teachers and students to “unpack” difficult ideas,

enlarge concepts and vocabulary, The materials are not so difficult for students that they cannot use them, but, on the other hand, the materials are not so simple that they prevent significant learning.

Look for materials that support rigorous academic learning of big ideas and essential questions, but are not so far above or below the current abilities of the learner that they stifle learning.

Criteria #7 – Are the materials geared to the diverse abilities, interests and needs of students?

Effective materials support the varied needs of students in a diverse classroom environment. The teacher's guide specifically notes differentiated strategies for various ability levels, such as choices and options, modifications, accommodations for varied learners, and appropriate enrichment activities. Special students of all types are capable of working with the materials at an independent level or with limited support from regular education or special education teacher.

Also, text, materials and instructional strategies provide a variety of activities that take into account the multiple and diverse intelligences of students. The text and materials take into account different learning styles both in the way students access information and in the suggested assessments used to assure understanding and the learning of key knowledge and skills.

Look for the ways that the materials support the varied needs of students in a diverse classroom environment, including special education students. Also look for ways that the materials and strategies incorporate multiple student intelligences and learning styles.

Criteria #8 – Is the curriculum program based on text alone, or does it include many different types of materials and resources, including technology-based learning?

If the materials are built around a text, does the text play a supporting role (not a sole one) within the entire program? For example, are there supplied ancillary materials that allow for the use of primary sources, information and data for interpretation, support for inquiry and thinking? Do the materials help create a varied and exciting dimension to the overall learning experience? Are students enabled to utilize meaningful technology elements in learning and assessment? Does the program contain suggested Internet web sites and CD-ROM's within the program that provides a meaningful expansion of the teaching experience?

If there is no text, are there varied types of resources and materials that guide learning? Do the materials lend themselves to inquiry and thinking, and create a varied and exciting dimension to the overall learning experience? Are meaningful technology elements included in both learning and assessment, including the Internet and CD ROM components?

Look for whether the text is the sole source of information or whether there are multiple resources incorporated into the materials that allow for thoughtful learning and inquiry. Look at the role technology plays in supporting the program's goals.

Criteria #9 – Do the materials encourage interdisciplinary connections?

Effective materials encourage interdisciplinary connections. For example, they may integrate big ideas and/or essential questions not only from the discipline being studied but other disciplines as well. History texts might incorporate many big ideas and essential questions from economics, government, and geography. Science materials may include big ideas and essential questions that integrate various science disciplines, such as biology, chemistry and physics. Interdisciplinary connections are also developed through the integration of processes and skills from many subjects, such as mathematics and reading connections to science and English-language arts connections to social studies.

Look for ways that the materials encourage interdisciplinary connections, such as by integrating big ideas and essential questions and/or integrating skills and processes across disciplines.

Criteria #10 – Are the materials and instructional plans well organized and easy to use (teacher friendly)?

Since teachers have so many professional functions they must perform, good organization of curriculum materials and relative ease of use are important. Good materials have clearly stated, focused goals throughout the program, with units, assessments, instructional plans and strategies clearly developed and organized around the goals. The teacher should not have to continually search for or find appropriate materials, but, in general, they should be supplied or be accessible. Teachers should be able to use the units, lessons, assessments, and support materials in a relatively easy fashion, and should be able to adapt them where necessary and appropriate. The program should also be supported with appropriate professional development if it is required to implement the program successfully.

Look at whether the program is well-organized, how big ideas and essential questions are clearly organized and made explicit throughout the materials, how well developed and organized is each unit and lesson, how assessments and materials are integrated throughout the program, how accessible suggested outside materials are, and how easy it is to adapt the program to a teacher's own style. Also consider whether there are professional development resources available in order to implement the program successfully.

Criteria #11 – Are outside experiences, including family involvement, part of the learning experience?

Do the materials suggest multiple opportunities for connecting the curriculum to the outside world through authentic learning opportunities? Determine whether authentic experiences such as field trips, interviews, use of real problems and data, etc. are included throughout the program and are tied to big ideas and/or essential questions. The program should be organized in such a way that parents can help their child work on homework that is tied to the goals of the program. Student guides are clear and help students use a variety of study, research and thinking processes and skills. The materials also recognize the primary educational role of the family and support parents who wish to extend and foster supplemental learning experiences with their children.

Look for authentic learning experiences to be an on-going part of the curriculum materials. Also look for many opportunities for parents to work with their children in order to supplement learning experiences. Supplemental student materials, such as study guides, should also help students organize their learning and thinking.

Use figure one on the next page, a one-page summary of the key criteria, to rate curriculum materials and determine whether they are effectively developed and organized for learning in an Era 3, 21st Century world.

Figure One –Era 3, 21st Century Materials Selection Criteria

#1 –Do the materials focus on big ideas and/or essential questions?

Look for the extent to which the materials identify a limited number of big ideas – concepts, themes, issues, etc. – that promote student understanding, and include provocative essential questions around which knowledge is examined. Be aware that these big ideas may be explicitly stated but can be also implicitly developed within the materials and textbooks.

#2 – Do the materials require learners to learn and use a variety of Era 3 inquiry and investigative skills?

Look for continual instruction and assessment opportunities for students to be able to ask key questions, define problems and challenges, think deeply and reflectively, draw conclusions and apply learning, and communicate effectively. Also look for ample opportunities to learn and to use high level processes and skills, such as research, scientific inquiry, strategic reading, writing, problem solving and decision-making, and creative thinking.

#3 – Do the materials include valid and varied assessments - both traditional and performance-based – that support the application and transfer of knowledge and skills?

Look for a variety and balance between traditional assessments and performance tasks, and between summative and formative assessments. Look for the validity of the assessments – the connections between the assessments and the goals of the materials. How do assessments help students to apply and transfer learning in order to demonstrate understanding and apply learning to new and novel situations?

#4 – Are the materials focused around interactive and engaging activities?

Look for activities that help students master understanding, inquire into essential questions, explain and explore their understanding, promote interaction between teachers and students, motivate student learning, and help students make meaning.

#5 – Do the materials continually revisit and refine big ideas?

Look for materials that are coherent – e.g., use big ideas and questions to develop ideas in greater depth and inquire into them over time (learning progressions). Examine the coherence of the materials by determining how well they revisit, refine, and reflect on ideas and/or explore the same or similar questions over time.

#6: Do the materials reflect a “developmentally appropriate” approach to student learning?

Look for materials that support rigorous academic learning of big ideas and essential questions, but are not so far above or below the current abilities of the learner that they stifle learning.

#7 – Are the materials geared to the diverse abilities, interests and needs of students?

Look for the ways that the materials support the varied needs of students in a diverse classroom environment, including special education students. Also look for ways that the materials and strategies incorporate multiple student intelligences and learning styles.

#8 – Is the curriculum program based on text alone, or does it include many different types of materials, including technology-based learning?

Look for whether the text is the sole source of information or whether there are multiple resources incorporated into the materials that allow for thoughtful learning and inquiry. Look at the role technology plays in supporting the program’s goals.

#9 – Do the materials encourage interdisciplinary connections?

Look for ways that the materials encourage interdisciplinary connections, such as by integrating big ideas and essential questions and/or integrating skills and processes across disciplines.

#10 – Are the materials and instructional plans well organized and easy to use (teacher friendly)?

Look at whether the program is well-organized, how big ideas and essential questions are clearly organized and made explicit throughout the materials, how well developed and organized is each unit and lesson, how assessments and materials are integrated throughout the program, how accessible suggested outside materials are, and how easy it is to adapt the program to a teacher’s own style. Also consider whether there are professional development resources available in order to implement the program successfully.

#11 – Are outside experiences, including family involvement, part of the learning experience?

Look for authentic learning experiences to be an on-going part of the curriculum materials. Also look for many opportunities for parents to work with their children in order to supplement learning experiences. Supplemental student materials, such as study guides, should also help students organize their learning and thinking.

¹ See for example Elliott Seif, *Curriculum Renewal: A Case Study*. A Chapter of the Curriculum Renewal Handbook, ASCD, 1998. Archived in the ASCD Curriculum Handbook section of their website, www.ascd.org).