

Reaching All of Your Students in Social Studies

Todd Twyman
Gerald Tindal

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Abstract

Students with disabilities often have difficulty understanding expository history texts in high school. This article presents an integrated curriculum/instruction/assessment approach to teaching history that increases content comprehension and problem-solving skills of students with learning disabilities in inclusive classrooms. Concept-based Instruction (CBI) adapts social studies curricula in three phases. First, texts are organized into concepts that have defining attributes, which are explicitly aligned to state standards. The concept/attribute structure is the rule set for students to access the implicit concepts in the text. Second, visual displays are used during instruction. The visual displays help students to focus their reading and represent consistent practice routines. Third, curriculum-based measures monitor student comprehension progress, and problem-solving questions assess knowledge application. CBI is flexible enough to be used in conjunction with any instructional method and helps teachers to be more efficient and effective to meet the range of abilities in inclusive classrooms.

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Introduction

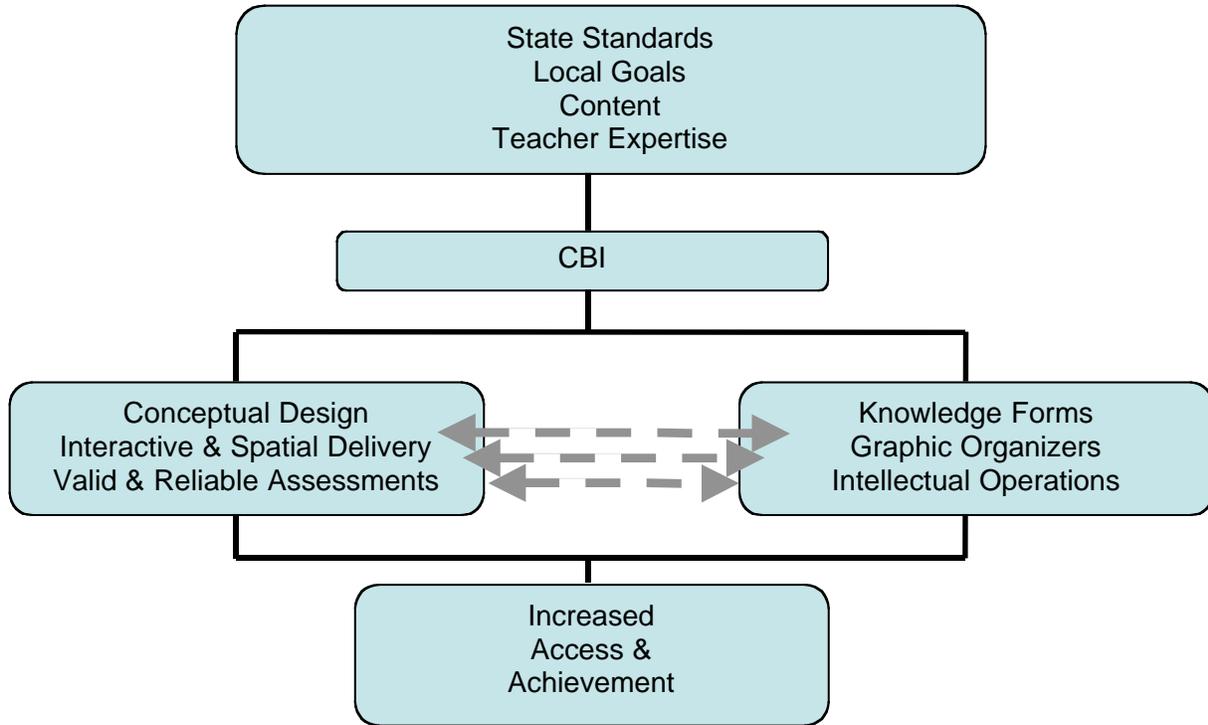
Jan is a high school social studies teacher, who, while teaching students with learning disabilities in his inclusive classroom, has lamented that despite his best efforts these students will not meet the statewide benchmarks that assess their content knowledge and problem solving skills. Meeting statewide standards has, of course, become a major focus for schools under the *No Child Left Behind Act* (NCLB), but finding effective research based practices mandated by NCLB is proving difficult to educators. Jan, like all conscientious teachers, is always on the lookout for effective teaching tools, but he has found little in the field that is both research-based *and* practical to use in his highly diverse classroom.

The *Individuals with Disabilities Act* (IDEA) stipulates that all students have the same opportunities to learn from the same curriculum, and for Jan, as well as most social studies teachers, his curriculum means the textbook. However, typical social studies textbooks are chronologically linear and full of isolated facts. And, though Jan wants all of his students to be able to understand the importance of history and its impact on today's society, focusing on an inordinate amount of facts inhibits his students with learning disabilities from identifying the global concepts, and thus understanding the underlying relationships that link those concepts together in different contexts. In essence, the historical stories in the text hinder his students from generalizing their knowledge to different contexts. Jan's situation is not unique in that in any given class there are several students with learning disabilities who need differentiated instruction. Consequently, Jan needed a teaching strategy to overcome the constraints

of both the range of abilities and curriculum to increase his students' chances for success.

Jan was specifically looking for an instructional approach that (a) organized the curriculum to meet the learning needs of the broadest constituency possible, (b) minimized learning barriers and maximized individual performance during the learning process, (c) was aligned to the state standards, and (d) research-based; a daunting task indeed. Fortunately Jan was working within a research to practice model (see Prater, 2002) that provided him with resources and guidance to approach teaching social studies differently. University researchers collaborated with Jan to help him incorporate a curriculum/instruction/assessment alignment strategy into his teaching to help him make appropriate content-specific information decisions to increase student achievement, called Concept-based Instruction (CBI). See Figure 1.

Figure 1. Concept-based instruction conceptualized.



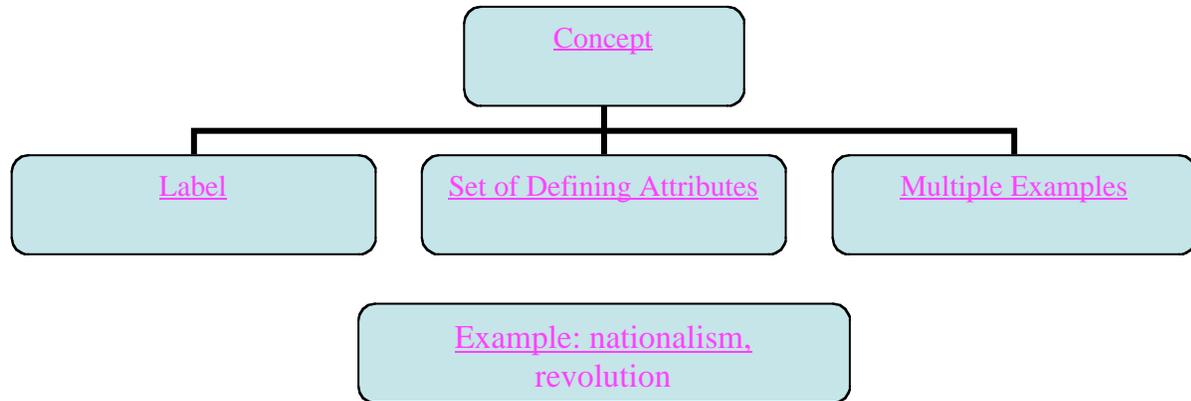
This article discusses how Jan used CBI to increase his students' access to the "hidden" concepts of history, which has dramatically improved his students' comprehension and problem-solving skills.

Concept-based Instruction

CBI is a strategy that adapts and aligns the curriculum to instruction and assessment by

organizing content information into concepts. Generally, concepts are labels for one or two word abstractions representing major themes or "big ideas" implicit to the text, e.g. nationalism, imperialism, colonialism, etc. Concepts have a set of attributes, or characteristics that help the reader discriminate between examples and non-examples of the concept (Figure 2).

Figure 2. Concept/attribute schematic.



When combined, the concept/attribute structure helps to highlight only the critical information in the text. Focusing on examples that fit into the concept/attribute structure enhances student access in making connections across chapters. In other words, as the student reads a different chapter using the same concept and attribute set, he or she can begin to stitch together the commonalities between the examples in the text and form generalizations. What separates CBI from other forms of concept learning approaches is that CBI explicitly uses defining attributes, as well as integrating a taxonomy of specific behaviors into instruction and practice routines. These routines have been shown to increase comprehension and problem solving skills for a broad range of students.

Typically, in other concept learning approaches the teacher defines the concept for the student and then moves on to referring to examples of the concept along the way during instruction. Often this approach falls short when the student is asked to use the concept

in an untaught or novel scenario. In practice, if the teacher taught about nationalism, the student may be able to apply that concept to previously taught material, like on an end of chapter test, but is not able to transfer their knowledge of nationalism to another example set, like a question on the statewide test, for example. For example, if the teacher taught about the rise of nationalism specific to early United States History, and used only examples to support the concept during that specific instructional unit, the student would unlikely be able to answer a question regarding the effect that the assassination of Archduke Ferdinand had on the beginning of WWI, i.e. the effect that nationalism had on the entangled alliances. In these models, teaching abstract concepts only with a limited example set still leaves the rules that define those concepts implicit to the student, which, for students with disabilities can create misrules and misunderstandings of important information.

Concept-based instruction, on the other hand, uses a set of defining attributes

that helps with linking the concept of nationalism across countries and eras. Using the concept/attribute structure avoids the practice of jumping right to the example with a set of rules to scaffold the concepts. The concept/attribute structure allows students to more easily identify the concept when they see it. The rule then serves as a template for students to more logically approach the text and enable them to differentiate between examples and non-examples. As the template is completed, the examples are more explicitly interconnected.

Continuing with the nationalism example, if the student knows that nationalism as a concept has three attributes: (a) an ideology based on devotion and loyalty to a nation, (b) places primary emphasis on promotion of its culture and interests, and (c) identifies with the power of historical tradition to oppose those of other nations or supranational groups, then he or she can understand that the Battle of Concord and Lexington was not the reason for the American Revolution, but that early Americans' sense of nationalism played a vital role in the conflict. Likewise, a student could then apply the same concept/attribute structure to World War I. What the student would recognize is that not only Britain's, but other countries', sense of national pride and arrogance drew them into conflict, and that the assassination of the Archduke was merely the catalyst, not the underlying reason. What is critical to remember is that nationalism links the American Revolution to WWI. The concept/attribute structure provides a bridge for students to compare and evaluate the commonalities and differences between times and settings.

Not only does the concept/attribute structure guide teacher planning, but it also can be delivered during instruction using visual adjunct displays. Visual adjunct displays,

aka concept maps, knowledge maps, or graphic organizers, have been used in conjunction with the text for several years, probably because they are intuitive tools to organize information and show relationships. In fact, there is general consensus among researchers that when visual adjunct displays are used during instruction, students with learning disabilities improve their comprehension (Kim, Vaughn, Waznek, & Wei, 2004). Using these visuals serves as a scaffold helping students develop the necessary schema to categorize the information in an organized way, so they can more easily access that information when they are approached with a unique problem solving question. (For more information regarding using visual templates for instruction, see <http://www.ncrel.org/sdrs/areas/issues/students/learning/lr2grap.htm>).

Visual displays that use a concept/attribute structure also allow teachers to support students in developing their problem solving skills, because they demonstrate underlying relationships explicitly. Representing the important facts in a logical and structured way also illustrates strategic paths for problem solving. In essence, visual displays are structured so that students can focus their reading on finding the appropriate examples of attributes, and putting those examples into the appropriate boxes. As the student fills in the boxes, patterns of relationships become clear. When used as notes, students with learning disabilities can discriminate between examples and non-examples of concepts, and then make evaluative statements using only the critical information.

Research has shown that for students who have learning disabilities, monitoring their academic progress is integral to assessing and evaluating their success. In this vein, CBI uses a combination of Curriculum-based

measures (CBM) and problem solving essays that are sensitive to low performing students. Tindal and Nolet (1996) used CBM procedures to document the general education environment within the frame of the inclusive classroom. They found that the combination of curricular materials, verbal interactions and performance outcomes were important to successful interventions – low performing students had difficulty with the standard multiple choice fact tests, yet they put together relatively reasonable responses on the essay task.

CBI also assesses problem solving with unique scenarios that are measured with a taxonomy of observable behaviors, or intellectual operations (reiteration, summarization, illustration, prediction, explanation, and evaluation). Several CBI studies have shown that students with learning disabilities in inclusive settings increase *both* their comprehension and their problem solving skills (Hollenbeck & Tindal, 1996; McCleery & Tindal, 1999; Twyman 2003; Twyman, McCleery, & Tindal, 2004a; Twyman, McCleery, & Tindal, 2004b; Twyman & Tindal, 2004).

CBI in Practice

Returning to Jan. He wanted to apply CBI to his class. His first order of business was to organize the content. Although there was a text box for each chapter to remind the student to focus on the abstract concepts of “Continuity and Change,” “Economics and Technology,” “Political and Social Systems,” “Global Interaction,” and “Geography and History,” each section merely presented stories and examples without ever explicitly addressing (or even defining) these concepts. Accessing these concepts would be difficult for even the most astute student, much less understanding and applying them across times, places, people and eras. For the

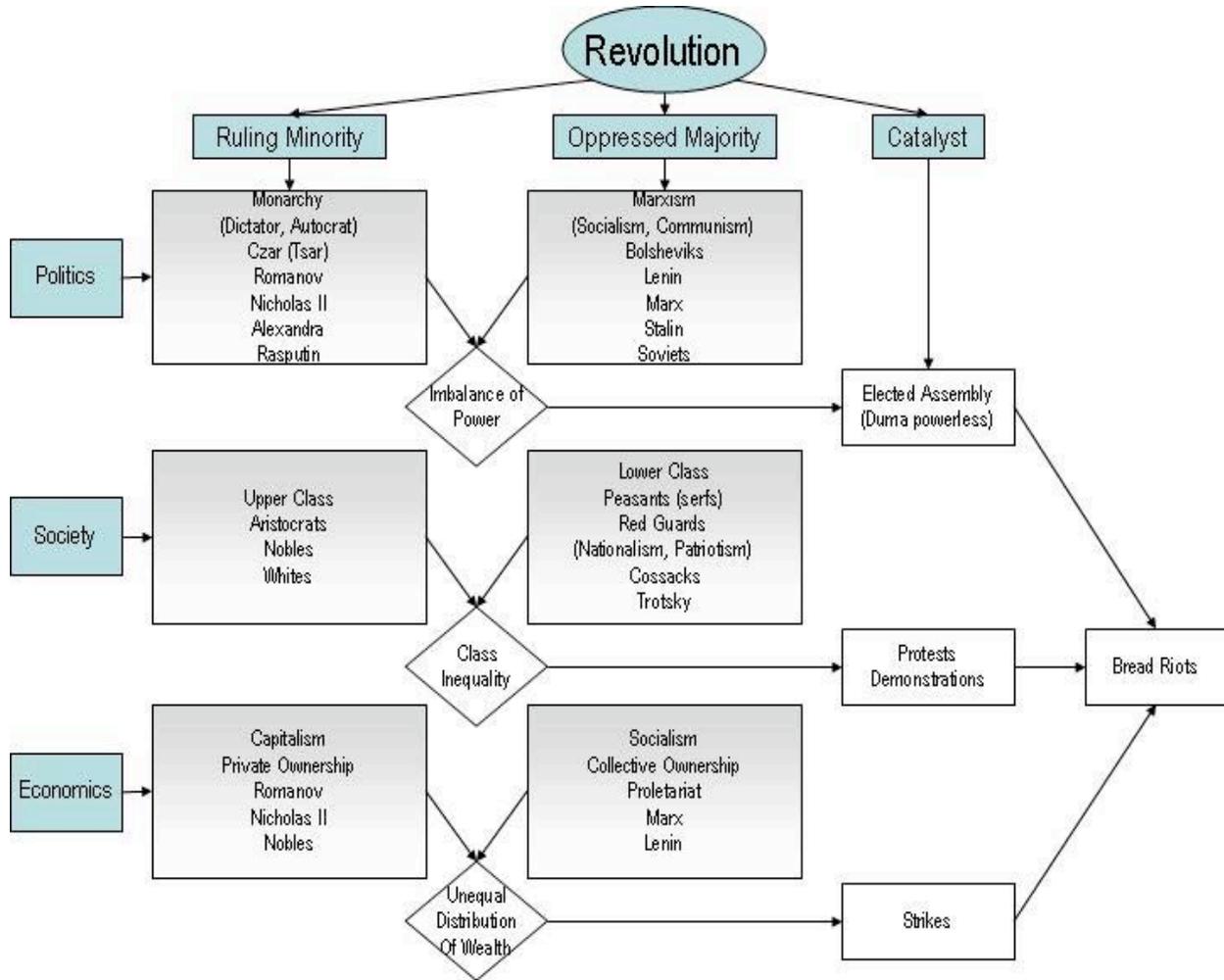
teacher, it would be next to impossible to address the concepts without a structured plan of action. Jan’s approach was to look at these concepts in the text and determine how to best fit them together into a cohesive instructional program. With the help of university researchers, Jan analyzed his text for common threads, themes, or “big ideas”. Jan noticed that the text was organized into thematic units, and one particular unit focused on chapters presenting the histories of the Agricultural, Industrial, Chinese, Russian, and Mexican revolutions. Together, Jan and his university partners determined that “revolution” was the common concept across the chapters. To make sure that the concept he chose was aligned to the state standards, Jan found that his concept-based unit matched the following standard: “Identify and understand the causes and consequences of the Russian Revolution of 1917, and the impact on politics in nations around the world” (Oregon Department of Education, 2003).

Jan defined the concept of revolution using the dictionary and was defined as “a sudden, radical, or complete change” (Merriam-Webster Dictionary, 2003). But this definition was not enough. Without falling into the same trap as the text, or other concept learning approaches, he needed a set of rules that would define his concept to help his students focus on the important material, while also setting aside the distracting, though interesting, details that often derail the lowest performing students. Because the text depicted this era as a major conflict between the “haves” and “have-nots,” Jan determined that the attributes that most appropriately fit the concept within this curriculum were the presence of a (a) ruling minority, (b) oppressed majority, and (c) catalyst for rapid change. When taken together and linked appropriately on the visual template, these attributes were the rules

that could be applied to any revolution throughout history. By using the concept/attribute structure as the frame for his instruction he could use these revolutions as examples.

His next task was to design a visual display to match his concept/attribute structure. There are several types of visual displays from which he could choose, e.g. descriptive map, sequential episodic map, compare/contrast map, problem/solution map, etc. Because his text presented the revolutions as a series of problems and solutions, he chose the problem/solution map. This visual display used simple shapes with graded color schemes to denote hierarchies, straight lines and arrows to show relationships between the concept, attributes and examples. Jan used a vertical scheme that presented the concept at the head of the page with the three attributes underneath to emphasize their hierarchical relationship and to assist in categorizing important vocabulary and factual examples. He also added an additional categorizing column that topically matched the standards (politics, economics, and society) that were placed on the left side of the graphic organizer to assist in classifying the examples of the attributes. Across the page, straight lines connected to a diamond between the attribute examples to indicate their relationships. For example, when students identified political examples of the ruling minority, there was a cell for that information. As other attribute examples were added, the problem/solution/effect rows explicated both the types of oppressive relationships between the two groups and the actions relative to each other (Figure 3).

Figure 3. Example of a visual template.



Finally, he designed a series of maze CBMs and problem-solving tasks that he could use as part of an activity, homework or quizzes. The maze task is a CBM that has been validated over the past decade as a technically adequate measure of basic reading comprehension skill (Gersten, Fuchs, Williams, & Baker, 2001). Normally, a maze task consists of passages chosen by reading difficulty with every n^{th} word deleted, resulting in

10 – 16 words deleted per 250 word passage. In the place of the deleted words are a series of word choices, usually four, with one correct answer and three distracter choices. Jan chose a passage from the text and created a maze task that reflected his concepts, attributes, and examples. See Figure 4.

Figure 4. Example of a concept maze.

Circle the best option in each bracket.

Name _____

As he watched the {**Bolsheviks**, **Communists**, **Monarchists**, **nobles**} celebrate their victory in November 1917, N.N. Sukhanov was excited and nervous. These radical revolutionaries had seized power in {**Russia**, **The Soviet Union**, **Asia**, **France**} in just a few months. Their leader, {**Lenin**, **Stalin**, **Marx**, **Nicolas**}, and his comrades rose before a cheering crowd, savoring their triumph. Like the Bolsheviks, he too was a {**socialist**, **communist**, **fascist**, **czar**}, but he feared these revolutionaries.

In 1931 Sukhanov was arrested by the new government's secret police, and sent to a brutal forced-labor camp. The {**revolution**, **civil war**, **riot**, **demonstrations**} caused the deaths of millions.

The Russian Revolution began with a small incident, bread {**riots**, **demonstrations**, **throwing**, **baking**} in the capital. But it soon became one of the most important events of the century. The leaders wanted to create a new society based on the ideas of Karl Marx. Certain that {**capitalism**, **democracy**, **socialism**, **communism**} would fail; they hoped to spread the communist revolution around the world.

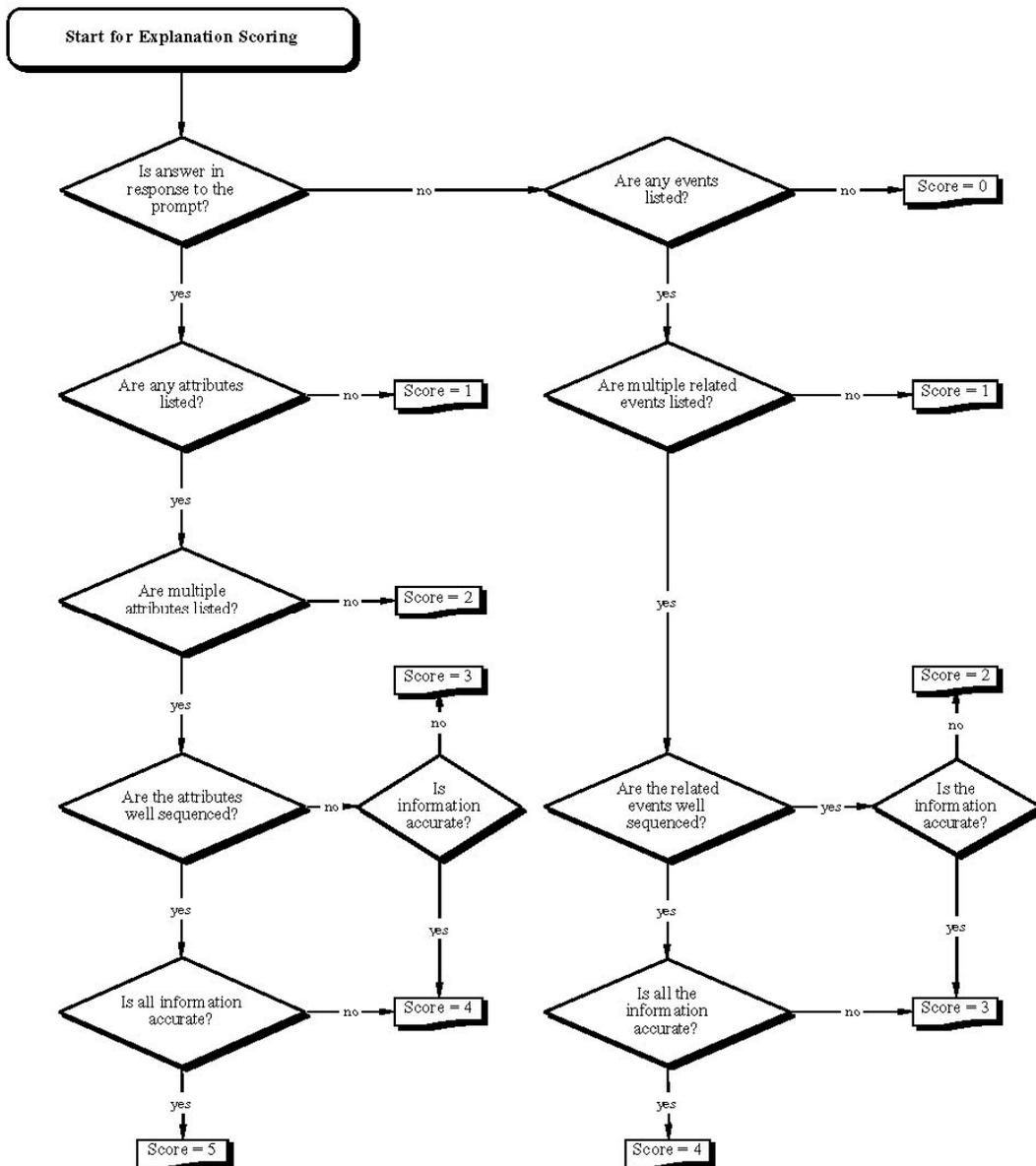
The worldwide revolution that {**Marx**, **Lenin**, **Stalin**, **Nicolas**} predicted never took place. But Lenin and his successors changed czarist Russia into the {**communist**, **socialist**, **capitalist**, **democracy**} Soviet Union. The Soviet Union's one-party politics and state-run economy served as a model for {**revolutionaries**, **peasants**, **nobles**, **Russians**} around the world for almost 75 years.

Jan also designed several problem solving questions. These questions were designed so students could use information about the Russian revolution and work backwards from the circumstances presented during the unit and *explain* what happened to create it. To ensure that reading and writing were not impeding his lowest performing or

learning disabled students in expressing their full knowledge and skill, he scored the essays for both the number of facts they used in their answer, and how well the attributes were used in the answer.

To score the second part he used a scoring flowchart developed by the university (Figure 5).

Figure 5. Flowchart scoring.



This guide had three decision points. The first decision point was if the student addressed the prompt. Second, did the student include attribute labels in his/her answer? If so, how many? Third, were there any facts to support the explanation? If so, how many? It is important to note that the flowchart was not designed to assess the style or conventions of writing, but to determine the quantity and quality of information related to the concept/attribute structure expressed in the essay.

After teaching the Russian revolution conceptually, Jan found that his students were much more organized during their reading activities and they had less trouble putting the information from their reading onto the graphic organizer than usual. When he checked for understanding after each activity, he found that even his lowest students could answer more difficult questions. What stuck out most to Jan was that these same students could put together an essay that explained what the Russian Revolution was about. Jan thought that finally he was able to get the students from the “I know they know it” stage to actually seeing their knowledge expressed fully.

He also noticed a couple of other by-products by using CBI. First it allowed him to focus his teaching. He found that once he pulled out the salient features from the text, he didn't wander into the more distracting details of the Russian revolution, for example the character of Rasputin, who was often in interesting stories, but not very useful in getting the students to understand the causes and effects of the Russian revolution relative to the space the text devoted to him. Second, he found that students who generally exhibited frustrating behaviors that distracted the class were more interested in the content and participated positively in class more, resulting in a more smooth and efficient class.

Final Thoughts

Taking a CBI approach can increase the access to the content and develop the problem solving skills necessary to succeed on state-wide tests. For students with learning disabilities, who have minimal success with content texts, combining a visual approach with a conceptual frame provides them with a bridge from the implicit text to explicit pattern-making and in an inclusive setting, CBI reaches many students in an efficient and effective way. CBI is also flexible enough to help the teacher align the overwhelming amount of material to be covered to the standards, as well as helping students to organize information and thoughts in a manner that allows them to be expressed. CBI can be considered a curriculum/instruction/assessment alignment package that educators can use to help them get the most out of their students. See Table 1.

Table 1. *Steps to using CBI*

Organize	Categorize the salient content and determine important concepts and appropriate attributes
Align	Use the standards to align your curriculum and distill the curriculum into its most important information
Design	Create visual templates to use during instruction as note taking or activity devices
Practice	Explicitly refer to the concepts and attributes during instruction and allow students to routinely practice
Assess	Monitor concept comprehension progress with concept mazes and critical thinking skills with problem-solving scenarios

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About the authors: Todd Twyman is a Visiting Assistant Professor in Educational Leadership, College of Education, University of Oregon. Gerald Tindal is Area Head and Professor, Educational Leadership, College of Education, University of Oregon.