CURRICULUM ALIGNMENT

An Assignment Presented to

Dr. David Kommer

Inquiry Seminar – Ashland University

In Partial Fulfillment

of the Requirement for the Degree

Master of Education

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November 19, 2004
Introduction

High-stakes testing is a reality of all school districts in the state of Ohio. For some districts the implementation of these tests has had little effect on their daily academic routine. Unfortunately, this has not been the case in the Bedford City School District, especially in the building I teach in, Heskett Middle School. Heskett is a seventh and eighth grade building in which no high stakes testing currently occurs. As a result of that, our status relies solely upon the performance of the high school students on their tests. Last year, the high school failed to meet the annual yearly progress standard mandated by the No Child Left Behind Act. As a result of not meeting annual yearly progress our building, and consequently, the teachers and administration, are being intervened by the state for the next two years. We must prove that we have a plan, approved by the state, in place to correct the current situation, and must show improvement on the tests for the next two years. If we fail to improve, the consequence will be more severe, such as state selection of the curriculum or a reconstruction of the staff by the state.

But the testing issue is not only at Heskett and the high school. As a district we fail to meet the mathematics standard at every level it is tested. The need for change is obvious, but the path in which we should travel to help our students meet the standards is not. The immediate response by the teachers and administration was to focus on the test our students need to pass in order to improve our status. This lead to a direct focus on the material covered by the test, emphasizing those standards over other grade-level standards not covered on the test. We also began using the practice tests, provided by the
state, to familiarize the students with the format and vocabulary. In essence we began teaching to the test.

What follows is an account of what caused what we are experiencing in our building. A look at the standards and testing and the accountability factor that was added to the tests begins the journey. The results of the implementation of accountability, high stakes testing and teaching to the test. I will conclude with what I feel the research dictates we do to the curriculum at Heskett.

The Standards and Tests

The purpose of the standards movement was to improve the quality of education provided by our educational system. They provide clear expectations for students and teachers to follow at every level of education and have been proven to raise test scores. In an effort to assess whether or not the standards were being met, states created tests based upon the standards to ensure students were proficient in the required areas. It is the format of the tests that pose the first problem to some educators. Standardized tests are largely multiple-choice questions, which are a focus on rote memorization, instead of comprehension, evaluation, and the ability to analyze and synthesize. The students can pass the standardized tests, and scores are improving, but they do not truly understand the material (Berube, 2004 & Koretz, 1997).

This is evident in a study performed in Virginia on eighth grade students. After the students took the state mandated they were given another test. The test covered the same material, but after answering the multiple-choice question, the students had to defend their answer in a short answer format. The result was that 71% of the students,
who had passed the state test, could not pass the short answer test. They could not
explain or defend their answers (Berube, 2004).

The standardized tests also do not test other important skills, such as oral
communication, problem solving skills, and people skills. The argument is that we are
creating a generation of students who are very good test takers, but are unable to think
beyond specific types of problems found on the tests. The real world is not multiple-
choice, but that is the format in which we test our students (Coplin, 2004; Posner, 2004).

Kohn agrees with these ideas, but takes the interpretation a bit further. When
describing standards and testing, Kohn insists that the tests are evil, and their only effect
will be to dumb down the public school system. He professes that, “Intellectual life is
being squeezed out of classrooms in the name of higher standards…We are in the midst
of a national education emergency.” (Harris, 2004, ¶ 2) Kohn argues that the higher
standards do not improve upon learning; it makes learning what is required more difficult
(Harris, 2004).

Kohn summarizes his ideas into five “fatal flaws” of standards and testing. The
first flaw is that the movement has resulted in a system of rewards and punishment, or
accountability, which will be discussed later. The second flaw is that the tests are
unnecessarily difficult in an effort to appear better. The thought is that the more difficult
the test, the better the test, which is an incorrect assumption. Tests should be written in
an effort to address the skills valued by society. The third flaw is that the tests change the
focus of education onto the product, instead of the process of learning. Students are not
concerned as to what they learned, but whether or not they have passed the test. The
fourth flaw addresses the curriculum changes caused by testing. Kohn believes learning
should be centered on discovery, and believes that the movement forces educators to move away from that type of classroom. The final flaw is the format of the tests themselves. The tests are timed, largely multiple-choice, they are given too frequently, are time-consuming, and the results are misused (Harris, 2004).

In an effort to correct the flaws many tests present, the state of Ohio is going to great lengths to develop the new Ohio Graduation Test and improve the other proficiency tests. Watts, State Senator for the 16th district in Ohio, is the author of the law creating Ohio’s proficiency testing and a sponsor of the law that raised the standards recently. He attests that prior to the implementation of the standards and the tests, that students were graduating high school with second grade math skills and fourth grade reading levels. Raising the standards is demanding that our students perform at grade level, and are adequately prepared to move on from high school. He asserts that Ohio students will rise to the new challenges set forth by the standards and tests (Watts, 2004).

The test questions are based upon the standards and are developed by Ohio teachers and teaching experts from all areas. They are tested in Ohio schools and studied for content and format flaws. Questions that do not meet the expectations are deleted from the test. The format of the questions is not all multiple-choice. In an effort to include comprehensive and evaluation skills, the questions are also formatted in an open-ended short answer and extended response format. Ohio’s diligent effort has been recognized by receiving an A grade from the Fordham Foundation for the math standards, and a B+ from the Council of Basic Education for their rigorous review of the standards (Watts, 2004).
Accountability

Regardless of the research on the format of the tests, the tests were implemented to ensure the standards were being met. But, what if schools did not meet those standards and, as a result, did not pass those tests? There are proponents for and against accountability, and states have approached the idea of accountability differently.

One positive interpretation describes accountability as simply requiring teachers to align with the state standards. It ensures that all students are acquiring the same knowledge and that students will not fall behind because of the decision of an educator to focus on areas not required by the state. It is an effort to refocus the purpose of school back to the academic areas instead of the extracurricular areas. It is an effort to move away from the progressive ideas of Dewey and Kilpatrick, such as discovery learning, creative learning and critical thinking, the refocus being on the traditional ideas of teaching as a supply and demand. The teachers have the information and dictate the information to the students who will then show knowledge by reproducing the facts on a standardized test. This interpretation of accountability aligns with the positive consequences of accountability. For example, in California, teachers could receive cash bonuses and additional funds for programming if their students performed well (Sowell, 2002).

But not all consequences are positive. There is also another side to accountability. In some states the performance of the students on the test can determine jobs; the teachers of poorly performing students will be fired. Schools that consistently fail could be shut down and districts with low sores can be taken over by the state. For students, the results may determine if they are promoted to the next grade or the results
may determine if they receive a diploma. Even though they have earned all the required graduation credits, they will not graduate, resulting in cancelled plans for the future, such as college or a military career (Jacobson, 2003-2204; Kunen, 1997; Posner, 2004).

High stakes testing is not a new concept; it can be dated as far back the fifteenth century. It is the attachment of these severe negative consequences included in accountability that led to the rise in public awareness today (Abrams, 2003; Olson, 2004).

Effects of High Stakes Testing

In an effort to not be penalized for the performance of the students on the high-stakes tests, districts, schools, and teachers have gone to drastic measures. The most extreme is to prevent the students who cannot pass the test from taking the test at all. Studies show that there is a rise in the enrollment for ninth grade students and that fewer students are reaching the tenth grade at all compared to the last thirty years, and the cause is testing. The cause for the increase in enrollment is that students are being retained in the ninth grade if they may not perform well on the standardized tests. The students that are retained are encouraged to drop out, the drop out rate nearly tripling in the last thirty years. The districts would rather certain students not take the test in an effort to maintain appearances and avoid consequences attached to poor performance (Abrams, Gruia, Haney, Madaus, Miao, & Wheelock, 2003; Testing, 2004).

Another extreme response by educators to the consequences of their students poor test performance is cheating. The teachers, not the students, are doing the cheating. For it is the teacher who will suffer the consequences of a poor test score, not the student who receives the poor test score. Teachers are providing students with copies of the actual test as practice throughout the school year. As a result, when the student takes the test, they
may, or may not, have mastered the material, but they will remember the specific questions and will therefore perform well. Teachers have lost their jobs and even their teaching certificate in an effort to improve their students’ scores through this method. In a fictitious example, based upon actual occurrences, a teacher changed the problems found on an actually test slightly and provided them to her students. The author presents this as cheating as well, even though the items were altered slightly. There are many examples of teachers reverting to this extreme measure in an effort to raise their students’ tests scores (Bushweller, 1997; Popham, 2001; Zirkel, 2003).

This provides a gray area for teachers to get lost. In the preceding examples the teachers were not to use the test to help their students, but some states do provide practice tests, and copies of old tests, in an effort to provide teachers with an example of the types of questions the test will cover. Some of the questions may appear on future tests as well. But when does teaching to the test become teaching the test? Are they just different extremes of cheating? Are the states that provide the tests to the teachers encouraging cheating? I have found that the answer lies in the interpretation of the phrases teaching to the test and teaching the test. A good indication I found between whether or not it is cheating is, if the rise of test scores does not accompany the increase of student general knowledge in the area being tested, then it is cheating (Kober, 2002).

I have found that there is a profound difference between teaching to the test and teaching the test. Teaching the test, or item teaching, implies that teachers provide the students with the actual problems that will be on the test with no or minimal changes. The concepts of the problems stay the same but the names in the problems may change. This does not increase the students’ general knowledge in the subject area, because the
student is learning how to solve one type of problem not how to apply a concept or skill (Popham, 2001).

Because it is cheating, the practice of teaching the test is seen as unethical. But one author takes the idea of ethics further. In a Texas school, students were drilled daily on the specific questions from previous years’ tests. The students were given the old tests as practice tests and drilled daily only in the areas of math and reading, other areas were not taught. Thus the teachers were teaching the test (Rosengren, 2004).

The unethical treatment went beyond teaching the test. Student recess was shortened to ten minutes one day a week in an order to maximize time spent on the test items. The school day was extended three days a week, but only for students who did not perform well on the practice tests. On the day of the test, students that were ill that had the potential to raise scores, were called in, and picked up by the principal to take the test (Rosengren, 2004).

After the test, the focus on the test questions continued, but since the test was over the students had forgotten what they had memorized for the test. The rote memorization was effective to get them to pass the test, but the students had not learned anything. So, the teacher did not teach anything and the students are not receiving the best possible education. Thus the author calls for the teacher to review their ethics and return to teaching the students the required material and not to simply teach the test, despite the administrative push to do the opposite (Rosengren, 2004).

Teaching to the Test

The progression of events that led to teaching to the test began with the standards. The standards led to the creation of the test. The test led to accountability.
Accountability led to the teaching of the test. But, if the tests were created based upon the standards, then if you are teaching to the test, you are teaching to the standards. Thus, the difference between teaching to the test and teaching the test is that when you are teaching to the test, you are focusing on the standards covered on the test and required by the state. You are not providing exact test questions. The tests provided by the states are to be used as guidelines, not absolutes, in the organization of curriculum. If teachers teach the concepts, or standards, that are covered on the test, then the students will not only be able to answer the specific question that the concept applies to, but will have a full understanding of the concept itself, and will be able to support their answers and apply the situations in their everyday life as well (Kinnaman, 1998).

These ideas are also supported in another article that, in an effort to separate the phrase of teaching to the test and teaching the test even further, refers to teaching to the test as curriculum-teaching and teaching the test as item teaching. It defines curriculum teaching as teaching to the test-represented content rather that to teaching to specific test questions. It argues that item teaching will result in a misrepresentation of what the students actually know, because the test scores will be skewed, as in the example above. Curriculum teaching will result in an accurate representation of what the student has actually learned, and can demonstrate that knowledge by applying the skills to the items on the test. The concept is to teach to the mastery of a skill, not the mastery of a test. The emphasis is on what the students are learning, and encourages teachers to have the faith that if they teach the curriculum effectively, their students will pass the test (Popham, 2001).
Curriculum alignment has worked for many districts that have implemented the idea. An international study shows that implementing curriculum alignment increases scores thirty-one percentile points. Curriculum alignment also forces better teacher communication and collaboration (The benefits, 2004).

The Seven Principles – A Summary

When teaching to the test, or curriculum alignment, is viewed as teaching to the standards, then teaching to the test is inevitable. I discovered seven principles that outline why this happens and how it progresses, supporting the findings I have discussed thus far.

“Principle 1: The power of tests to affect individuals, institutions, curriculum, or instruction is a perpetual phenomenon. Tests produce large effects, if students, teachers, or administrators believe that results are important.” (Abram & Madaus, 2003, p. 32). The general public believes that tests are an accurate description of the quality of a school. What the public views as important, the media picks up, and as a result, the tests become important to administrators, teachers, and students. The school report cards published by the state have also pushed the performance on standardized tests into the media, making them the sole indicator of what makes a school effective (Abrams & Madaus, 2003).

“Principle 2: The more any quantitative social indicator is used for social decision making, the more likely it will be to distort and corrupt the social process it is intended to monitor.” (Abram & Madaus, 2003, p. 32). Meaning, the more important the test is, and the more severe the consequences from it, the more likely teachers are to change what they do in the classroom to raise the scores. Teachers report that they have adapted their
classroom instruction to help raise scores without improving learning (Abrams & Madaus, 2003).

“Principle 3: If important decisions are based upon test results, then teachers will teach to the test.” (Abram & Madaus, 2003, p. 33). Through the adaptations made in the classroom, in an effort to increase scores, the teachers do end up teaching to the test. The degree to which the teacher does this may vary, as previously discussed, but in most instances, the curriculum is narrowed to cover the material on the test (Abrams & Madaus, 2003).

“Principle 4: In every setting where a high-stakes testing operates, the exam content eventually defines the curriculum.” (Abram & Madaus, 2003, p. 33). Whereas our standardized tests were based off of the curriculum, not every standard in every subject area is tested. Therefore the curriculum taught does change as it is narrowed to satisfy the contents of the test (Abrams & Madaus, 2003).

“Principle 5: Teachers pay attention to the form of the questions of high-stakes tests (short-answer, essay, multiple-choice and so on) and adjust their instruction accordingly.” (Abram & Madaus, 2003, p. 33) A specific situation that results from principles three and four, this can have a positive effect. If tests are not solely multiple-choice and include short answer and extended response, then teachers will focus on writing and higher order thinking skills (Abrams & Madaus, 2003).

“Principle 6: When test results are the sole or even partial arbiter of future education or life choices, society treats test results as the major goal of schooling rather than as a useful but fallible indicator of achievement.” (Abram & Madaus, 2003, p. 33). The states that require students to pass a single test in order to graduate are negating the
efforts made by the student in their thirteen years of schooling. It de-emphasizes the importance of grades and extracurricular activities and summarizes their success in the efforts applied to passing one test (Abrams & Madaus, 2003).

“Principle 7: A high-stakes test transfers control over the curriculum to the agency that sets or controls the exam.” (Abram & Madaus, 2003, p. 34). This results in a curriculum that does not take into account the individual needs of students, teachers, or districts. The state determines which standards are the most important by including those standards in the test items. The teachers then narrow the curriculum to the test and the one-size fits all approach is taken (Abrams & Madaus, 2003).

The Curriculum

Testing is necessary and should be viewed as an integrated part of the learning process. There is no argument that the tests should be based on the curriculum, but what has also been shown is that the curriculum will change based upon the test as well. So what should teachers do to assist their students to pass the high-stakes tests, without reverting to unethical practices such as cheating, or specifically, teaching the test (Cole, 1999)?

The overwhelming answer is to teach to the test, or curriculum alignment. Curriculum alignment has proven effective for schools that are now passing state tests and improving every year as a result of it. The emphasis is not only on teaching the students the content, but informing them on what they need to know, and what they should be able to do with that knowledge, at the end of each day. Teachers have those two ideas posted in their room daily as a constant reminder to their students. They
emphasize teaching lessons that apply to real life, and linking those to the standards covered by the test (Bushweller, 1997).

Teachers can also use a taxonomy table (see Table 1) to ensure curriculum alignment. The taxonomy table can be used to assess a complete unit to ensure a variety of instructional activities for multiple objectives. It is organized so that the cognitive process required to perform activities is evident. A good unit would cover many cognitive processes and include many activities. It also encourages the use of multiple assessments, both formal and informal. By organizing the information in the chart, the teacher can identify gaps in the unit and correct them (Anderson, 2002).

Table 1

*Taxonomy Table*

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<th>Remember</th>
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Teachers also emphasize test-taking skills with their students. They discuss the idea of pacing, emphasizing the idea not to spend too much time on any one question. They also spend extensive time on vocabulary and decoding the wording on the tests. They are taught skills to tackle multi-step word problems and short-answer or extended-response problems as well. The teachers also give practice tests. The tests are designed
similarly to the state test, but are developed by the teachers themselves (Bushweller, 1997).

Even in schools that do not agree with the notion of standardized tests, the alignment between test and curriculum is evident. A middle school based upon Gardner’s theories of Multiple Intelligences, felt the need to make accommodations for the tests, in an effort to maintain their reputation. They have not abandoned their curriculum, but have implemented a tutoring program to aide students struggling with basic skills. This shows that a curriculum does not have to be based upon rote memorization in order for students to be successful on the tests (Bushweller, 1997).

In an effort to help teachers learn to align the curriculum in an effective way, districts have hired experienced educators to aide in the process. The teachers are experts in this area, and share their knowledge with others in workshops. In some states, like Michigan, teachers have formed organizations to help low-achieving districts raise their test scores. They identify weak areas in the curriculum, and offer solutions to the discrepancies (Bushweller, 1997).

Another suggestion to help align the curriculum is to maintain open communication with other classroom teachers and administration. The discussion with administrators and teachers can provide ideas that have been tested in a classroom and have worked for your colleagues. A common planning time, or a designated meeting time to share ideas or develop new ones is essential in this process (Stine, 2000).

It is also suggested that the students get involved in the process as well. Having the students reflect and evaluate what they are learning provides immediate feedback on what the students are retaining and what they truly understand. This can be done through
journal writing or interviews on a regular basis with the students. This process also introduces the concept of writing in mathematics, an essential element in the format of some tests. This process also allows students to monitor their own learning and push the limits of their knowledge and ability (Stine, 2000).

Another recommendation to aid in aligning curriculum, and help students learn, is to take advantage of the data provided by the assessments. By studying the data, the gaps in the curriculum can be identified and modifications can be made. Another avenue that is already in place, but that can be used more effectively, is summer school. Summer school should be run in a small group setting and should not only be for students who fail, but for students at risk of low test performance. The assessment data should be used to plan the curriculum for summer school in cooperation with the most effective techniques and materials used throughout the school year (Maidenberg, 2000).

There are also many free web sites available for students, teachers, parents, and administrators that explain the standards and offer free support materials. Some recommended websites include www.nctm.org and www.statestandards.com that provide information about individual state standards as well as practice tests (Foster & Salpeter, 2000).

Other websites such as www.math.com and www.oai.org/SMART provide lesson plans that other teachers have found effective and that are aligned with the math standards. The math.com website also provides opportunities for students to learn lessons on line and follow them up with a unit quiz. These can be used to re-teach or can be utilized by students to stay ahead. There is also a homework help section and an on-
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line tutor provided. Teachers can download lesson plans and can customize worksheets on this website as well. There is also a link for parents.

The SMART consortium is a group of fifty-two school districts in northeast Ohio and is dedicated to improving science and math learning. Bedford City School District is a member of SMART, and can utilize the website to obtain current standards information and to also download lesson plans based upon the standards, that have been submitted by teachers, and approved by SMART.

Finally, teachers are encouraged to remain current with new curriculum developments and professional opportunities. Teachers who attend workshops regularly are exposed to the latest developments, which are focused on curriculum alignment (Stine, 2000).

Implications for Heskett

The reality for students, teachers, and districts across the nation is that high-stakes standardized testing is not going to go away. The reality for Heskett is that there is no quick fix that will guarantee to improve our test scores. But, we should not panic or revert to using unethical methods to aide our students in the passing of the test. I believe the answer is curriculum alignment. The research shows that the tests are based upon the standards, and that curriculum alignment has worked for districts.

In an effort to improve our teaching methods I believe there are several steps we can take to ensure that we are moving in the right direction. Before we begin to align the curriculum, we need an avenue that provides opportunity for open communication and a free flow of ideas. I am suggesting that the monthly department meetings be reformatted to allow for a common planning time among the math department. During this time we
can discuss the progress of our efforts to align the curriculum. This will also provide a forum for teachers to share effective practices and materials with each other. The alignment process will not be easy, so this will also provide a support system when problems do arise. Constant assessment is essential for curriculum alignment to work; therefore the monthly meetings will help to keep us on track.

We should begin by evaluating our current course offerings and their alignment with the standards. Excess topics and materials should be removed, leaving the focus on those areas the test covers. The purchase of new and/or more textbooks or materials should be discussed in an effort to round out the curriculum.

We can implement the use of the expired and practice Ohio Graduation Tests. They will serve as examples of how our tests should be formatted and worded, so that students become familiar with the style. The tests will also provide examples of the type of vocabulary used on the tests. The vocabulary should be presented to the students and implemented in the classroom daily.

Because the Ohio Graduation Test does require short-answer and extended response items, more writing should be included each day in class. This can be done through frequent journal entries. Thorough explanations should be provided for students so that they can defend their answers and explain their reasoning. This will also help to inform the teachers of what the students truly learn and help the students take some responsibility in the learning process.

Effective lesson plans and materials should be shared among staff members. Teachers should also take advantage of the lesson plans available on line at the various websites. The SMART consortium is a valuable tool available to us at Heskett that we
are not utilizing. The taxonomy tables should be used to ensure that the units are well planned. Gaps in the curriculum can then be repaired prior to the teaching of the unit.

With the daily lessons, the objectives should be put on the board. With the objectives, the application of the new concept should also be displayed and discussed. This will allow students to refer to the ideas throughout the class, when they begin to get confused. It provides an anchor, and a constant reminder, of what should be mastered that day. I believe this process of focusing on daily goals provides baby steps to reaching the ultimate goal. Instead of thinking of passing the high-stakes test, the students, and the teacher, focus on what needs to be accomplished each day. I think this approach will also prove to be a stress reliever for teachers and students.

Test taking skills should also be covered on a regular basis. These skills would be practiced on the quizzes and tests each teacher provides on a regular basis. I also believe that we should develop a practice test that mimics the style of the Ohio Graduation Test, but that covers seventh and eighth grade standards. The students should be given the test in a school-wide testing situation in an effort to hone their test-taking skills. This practice test will also provide important data that can be used to further assess our efforts.

The summer school program provided to our students should also be reformatted to align with our new curriculum. Summer school should focus on the trouble areas that become evident in our data collection. It should also have a strong focus on test-taking skills. Each teacher should recommend summer school for any student that may have difficulty passing the Ohio Graduation Test. Since the requirement to pass is 75%, any student receiving 75% or lower as a final grade should be recommended for summer
school in mathematics. These students should also take reading in summer school, because the test requires a great deal of reading comprehension.

In an effort to make this transition easier for our teachers, I am recommending that each teacher continue their professional development by attending workshops and conferences. Teachers can then share what they learned with the department at the monthly staff meetings. By remaining current on new developments, we can improve our curriculum and test scores more efficiently.

This is not a comprehensive list of strategies to our students, but I feel this would be a good beginning. The implementation of curriculum alignment should be a group effort if it is to be effective. I believe these ideas will start us in the right direction and will lead us to greater ideas and higher test scores.
References


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