

CHAPTER 18

A Balanced Curriculum

Standards and Assessments for High Performance

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Two SDP implementation coordinators describe a balanced curriculum process that responds both to the developmental needs of children and to city, state, and national standards. For schools and districts that have successfully implemented this process, the impact on student reading test scores has been uniformly positive (See Ben-Avie, this volume, p. 4, and Squires, 1998a).

Here's the scenario: The School Development Program has helped your school over the past several years. Your teams are in place. Parents are more active in school activities. The climate of the school is changing for the better. Collaboration and consensus are the rule rather than the exception. What's next? What's most important?

The next step is to examine the school's curriculum, instruction, and assessment. What are your students learning in reading and language arts, math, science, and social studies? Will the curriculum help further the students' development and improve their scores on national and state tests? Does your school have a way to monitor and evaluate its curriculum and instruction through a means other than standardized tests?

The School Development Program has a process to help schools and districts balance and align their curriculum with national, state, and local standards as well as with the six pathways of development: physical, cognitive, psychological, language, social, and ethical pathways.

If education is to improve, schools and districts must develop the capacity to describe, balance, align, and assess their curriculum. Programs, like superintendents, may come and go, but a carefully developed and balanced curriculum, unlike add-on programs, provides the structure so that current results can shape future improvement.

As the process of curriculum development begins, it is important to differentiate curriculum from other elements of the educational process:

Textbooks are not a curriculum. There's too much information for teachers to cover, let alone for students to learn. Teachers choose what's important for them without knowing how their decisions impact students as they progress through the grades. When there is no guarantee of student mastery, this year's teacher is faced with a hodgepodge as last year's students are mixed into new classes. Review now consumes the first quarter, leaving fewer instructional days for the current year's content. With less time, teachers choose to teach fewer of the grade level expectations. Students aren't prepared adequately for next year. The cycle is repeated.

State and national standards are not a curriculum. Rather they describe in general the appropriate content, but do not present a way to manage the decisions districts and schools need to make in order to create the scope and sequence of the instructional program.

Standardized and state tests are not a curriculum. The fearsome pressure teachers and administrators feel to perform well contracts the curriculum to a pinhole, a restricted funnel for the development and education of children.

How Do We Balance the Curriculum?

If textbooks, standardized tests, state standards, or add-on programs alone shoulder the load of focusing schools, the results will not meet public expectations. Only a balanced curriculum process can be a skeleton to support the tendons and muscles of powerful instruction that balances the needs of children with the demands of society.

The balanced curriculum process helps schools put child development at the center of curriculum development by building professional relationships through collaboration and consensus. The process increases management capacity to refine a school or district curriculum while maintaining accountability and commitment. The balanced curriculum process provides the tools and processes to structure the school's or district's work to identify the most important content that will support students' development and performance.

The process involves three steps: defining the curriculum, aligning and balancing the curriculum, and assessing the curriculum. This can be done at either the school or district level.

At the school level, the principal and grade-level or subject-matter representatives attend a series of four workshops in which the steps to a balanced curriculum are explained and simulations help school or district teams anticipate problems and possibilities they will encounter when the school team implements the program back at the site. District curriculum, assessment, or staff development personnel are included in the workshops and do follow-up work at the sites. The four workshops follow a standard format and are supported by manuals customized to include the appropriate standards and assessments for the site.

Session 1

Activity 1: Introduce the balanced curriculum process

Activity 2: Provide an overview and rationale for the balanced curriculum process Activity 3: Define components of a good program in the subject area

Activity 4: Outline unit titles and specify length of teaching time for each unit

Session 2

Activity 5: Read and process national standards in the content areas

Activity 6: Incorporate the developmental pathways

Activity 7: Generate activity-based objectives and descriptions for each unit

Session 3

Activity 8: Align and revise unit objectives to the state assessment system

Activity 9: Align and revise unit objectives to the standardized test objectives Activity 10: Validate

alignment and balance (internal and/or external validation)

Session 4

Activity 11: Develop assessments with formats aligned to standardized tests

Activity 12: Develop rubrics and performance assessments aligned to the unit's content

Activity 13: Forge agreements about using unit assessments to improve program

Activity 14: Develop ways to use results from unit assessments and standardized tests to improve the program

Activity 15: Plan for continued implementation.

To develop a district-wide instead of a school-specific curriculum, unit descriptions and activities are generated monthly or by some other relatively short period of time. Then district administrators and building representatives participate in sessions in which the district curriculum is balanced and aligned,

internal or external validation takes place, plans for assessment are made, and implementation and monitoring issues are discussed.

Let's listen as two teachers, Anne, who teaches third grade, and Ed, who teaches sixth grade, and their principal, Deloris, discuss the balanced curriculum process in math that was implemented in their school over the last two years. These three characters are fictitious, they are a blend of principals and teachers who have worked to create balanced curricula from all over the country. I have created this dialogue to personalize the balanced curriculum process and show the professional changes in the ways teachers and principals view their roles (Squires, 1998b).

Why a “Balanced” Curriculum?

Deloris: I was initially interested in the balanced curriculum process because I knew 'just knew' that our teachers and students could do better on the tests given by the district and the state. Just because our students come from a poor neighborhood doesn't mean they perform poorly. But we did have a way to go.

Ed: A balanced curriculum that we defined as a school made planning for teaching easier. I knew that if our grade level could get together and all decide on a common curriculum, then we could divide up the planning and we wouldn't have to plan and assess all the units individually, as we had been doing before. Plus our students would then receive a consistent program in every class at the same grade level.

Anne: My initial interest came because I was not sure what should be emphasized. There are so many competing priorities. The text, which I mainly followed, didn't really have enough practice in it for many of the topics I was supposed to cover. The standardized tests we take emphasize other topics. Then our district is suggesting we teach the topics in a certain order. And I had read some articles about the new standards proposed by professional organizations of math or reading and language arts teachers. The articles suggested emphasizing more the process of coming to solutions, rather than just the solutions themselves. Of course, some of our vocal parents wanted “The Basics.” Others wanted lots of enrichment. I saw the balanced curriculum process as a way to make informed decisions so the curriculum would be focused to meet the developmental needs of my children.

Deloris: As a school administrator I saw the balanced curriculum process providing a way to avoid the duplication across the grade levels that I saw while observing classes.

Anne: That's true. Before, I spent a lot of time reviewing at the beginning of the third grade because I wasn't sure what content the students had mastered in second grade. Different second grade teachers appeared to emphasize different things. So when they configured the classes for third grade, I had to spend time figuring out where the students were.

Ed: I've found the same thing. I now know what has been emphasized in fifth grade and that students really know that content. Now I spend much less time on review and much more time on sixth grade content. My students come out ahead.

Defining the Curriculum

The past and the future combine when defining the curriculum. Defining the curriculum means teachers look backward and discuss their past practices to define the best of what, collectively, is already being done. Teachers also discuss what makes up a good subject-area program. The outcome of these discussions results in an entire faculty understanding their own standards.

Ed: We began the balanced curriculum process by talking about what we thought made up a good math program as a way to define standards for ourselves. I was surprised at how many ideas I had about teaching math; it was interesting to see that others thought the same way.

Deloris: This was another way that we started “where we were.” As a faculty we reached a consensus about what we thought made up a good math program. These were our standards that we developed ourselves. We could then take a look at each unit and see if the unit met our own standards. This helped me to understand what the staff understood about the characteristics of a good math program. Naturally, I saw some opportunities for future staff development work.

Ed: Just to piggy back on that comment: I felt that a good math program should involve hands-on problem solving experiences that were similar to math problems they will encounter outside school. Well, when I actually looked at my own instruction, and particularly my unit tests, I found I did not have very many of those “real world” problems. Our grade level is working on improving in this area.

Deloris: This is an example of how we are aligning our units to our standards. We begin with what we are doing and what we know, no reinventing the wheel. The curriculum consists of units taught sequentially. Each unit has a title and a specified amount of time; for example, a geometry unit may take two weeks. As faculty publicly share their work, scope and sequence issues surface and become resolved. Then, 2to5 important activities are agreed on by teachers at the same level or course. Everyone agrees to complete these activities, although different teachers will approach them differently depending on their class. For each activity, the group agrees on brief statements about what most children will be able to accomplish by the unit’s end. These are called “activity-based unit objectives.” Once defined in this way, each unit is a professional promise that most students will complete the work successfully.

Deloris: The next activity in the balanced curriculum process is for each grade level to define its unit titles and the approximate beginning and end dates for each unit. After all the grade levels completed the unit titles, we posted the results in the teachers’ lounge. That was a real eye opener for me. We saw that addition and subtraction was taught at each grade level through grade 6 and that out of the seven grade levels in our school, a total of a year’s worth of K-6 instruction was devoted to addition and subtraction. There was a lot of overlap between grades.

Ed: I couldn’t believe that all that time was spent and I still had a lot of kids in sixth grade struggling over subtraction.

Anne: The pattern was clear. We were so busy trying to get through the textbook that students just didn’t have enough time to really understand and learn some of these concepts. Because students didn’t master the content, it was repeated at the next grade level. We could get more time by making promises about what we thought kids could learn, not what we as teachers could cover.

Ed: The conflict of mastery over coverage was one that was resolved by talking about our promises to the next grade level. We would only promise what we thought most students could learn.

Deloris: The idea of teachers at one grade level making promises about what most students would learn is one of the most powerful ideas in the balanced curriculum process. I remember sitting with the fifth grade teachers when they were discussing what they could promise to sixth grade about fractions. One teacher didn’t think a promise about fractions could be made for most students, so she wanted to concentrate on division of whole numbers. Another teacher said he thought fractions were important but never covered them because time ran out at the end of the year. A third teacher said she had covered fractions but didn’t really feel that enough time had been spent so students would remember the material over the summer. So, even though fractions was a textbook chapter, the grade level reached consensus not to promise an introduction to fractions, so they could spend more time on multiplication, division, and problem solving.

Ed: As a sixth grade teacher, this really helped. I now know that my main goal is to help students understand fractions and decimals in order to solve problems. So I constructed most units for fractions or decimals. I no longer feel resentful that students don’t come to me with an introduction to fractions. I’m just happy that they really know how to solve problems using the four basic operations, but especially multiplication and division. I know the fifth grade teachers really have tried to keep their promise to me.

Anne: Discussing our promises at third grade really helped me clarify what was most important. But it also gave us a new way to 93be94 with each other. Before the balanced curriculum process, we almost never discussed what we were teaching. We assumed that since everyone had the same materials, more or less, that the same content and concepts were covered. Once we started discussing our units as promises, we found we were together on some things but not on others. Now we have a united front.

Ed: After everyone posted their unit titles in the teachers' lounge, we met and "did deals." Our "deal" with the fifth grade was that they would make sure kids knew multiplication and division. Now our sixth grade team had enough time to really come through on our promise to the seventh grade that kids would understand fractions and decimals.

Anne: I liked "doing deals." I tend to divide the year up into months, and I know what I am doing, in a general way, during each month. As a grade level, we found we agreed on the general unit topics, and we "did deals" to iron out our differences. However, I did give up one of my favorite units on geometry and making snow flakes because other things were more important and needed time. After "doing deals," which insured an appropriate scope and sequence, we developed one or two major activities for each unit and described these using activity-based unit objectives.

Ed: Coming to consensus on just 1 to 5 activities again helped us focus on what was most important for students. I tend to think and plan my teaching through activities, so this was a natural process for me. Teachers on our grade level had a great time brainstorming a list of possible activities. Then we chose the best ones.

Anne: Although agreeing on one or two activities for everyone was important, it was even more important that I had the freedom to teach the rest of the unit in a way that fit my students' needs and my own teaching style. So the process defined the most important activities in the curriculum, but we could arrive at those activities in different ways. We could also cover other related areas if we had time.

Ed: Once we had described the activities, then we attached educational objectives to the activities. For example, we wanted students to understand the concept of area (the educational objective), and we decided that students would practice estimating the areas and then confirming that estimate by placing graph paper over the object and counting the squares (the activity). So the activity-based unit objective read, "We will find the area of many objects by estimating the number of graph paper squares, then use graph paper to cover the objects and confirm our predictions."

Anne: Describing the activity and attaching the educational objectives to the activity allowed us to communicate well within and between grade levels about what our promises were all about. Before, we told each other we were concentrating on problem solving, without telling what the major activities were that students would accomplish. Now for each unit we know what the major activities are that all students will be doing. Our promises are now specific.

Deloris: The activity-based unit objectives have really helped each grade level understand what all kids should be able to do in order for the teachers to keep their promises. For example, the second grade team reviewed the activity-based unit objectives of the first grade team. They were impressed. Based on the review, they returned and made some of their activities a little more difficult. They told me that if most first graders were able to complete that activity, then the second grade teachers could challenge them a little more than they had thought was possible at first.

Ed: Having everyone on the grade level complete the same one or two activities in each unit allows us to get together and look at our students' work and talk with each other about how to further improve the quality of student work next year.

Balancing and Aligning the Curriculum

Balancing and aligning the curriculum also means looking to the future to improve on the past. To do this, teachers need to understand national and state standards that define current best practice and important content. Faculty see the congruence between their standards and those from outside sources. Then they modify the curriculum so the future is better than the past.

After the curriculum is defined, the curriculum is aligned to self-defined standards, national standards, the developmental pathways, state and standardized tests, and texts and other curriculum documents. Once faculty are introduced to state and national standards and assessment specifications from standardized tests, the defined curriculum is aligned to standards and assessments. To do this, a grid is used: The unit activities are listed in the left-hand column, and the standards, standardized tests, developmental pathways are column heads across the top. Teachers mark an X where there is alignment, where the vocabulary or ideas used in the standards is reflected in the activity-based unit objective.

Balance is important. Have certain standards been over- or underemphasized with too many or too few activities? The grid provides faculty with a way to ask and answer those questions.

Deloris: So each grade level has defined 10 to 15 units in math. Each unit has a range of 1 to 5 activities that are described and linked to educational objectives. We defined our own standards for a good math program. Now we get into the alignment process.

Ed: I really liked the faculty meetings in which we got to dig into the national standards proposed by the National Council of Teachers of Mathematics (NCTM). Those standards helped me to orient my own math teaching much more toward problem solving, reasoning, and communication skills, rather than emphasizing the memorization of algorithms. I found that most of my activity-based unit objectives contained problem solving, so I was able to show good alignment with problem solving sections of the grid in the NCTM standards and also on the problem solving section of the standardized test.

Anne: There's really a lot to align the curriculum to: national standards, state frameworks, our own standards, developmental appropriateness of the curriculum, the state test, our district standardized tests, and the instructional material, including text books, that we use to teach.

Ed: When we did our grid, we found that there was little alignment between the "Communications" standard of the NCTM and our activity-based unit objectives. Not many of our math activities really required students to communicate how they solved or thought about problems. Our curriculum was out of balance. I remember that we decided that we would incorporate at least one major writing assignment in each math unit. Once we decided on the activity, we rewrote our activity-based unit objectives and "realigned" by placing new checks in our alignment chart. We now had a better balance in the curriculum. And, of course, this will also help us in our reading and language arts programs as well.

Anne: At the third grade level, we found out that the state test emphasized using graphs to solve problems. Yet we had not included any activity-based unit objectives that dealt with graphing, although we thought we would cover it tangentially in a few units. Again, our curriculum was out of balance. So, we went back and revised the activity-based unit objectives to make sure students had a couple of important projects that included graphing and problem solving. When we completed that process, we had validated the curriculum from our internal perspective.

Ed: Taking a look at how our math activities aligned with the developmental pathways reinforced where we needed to pay more attention. We included more activities with manipulatives and addressed the physical pathway. Manipulatives also address the cognitive pathway (when students use manipulatives to show their understanding) and the social pathway (when manipulatives are part of group work).

Deloris: Then the grade level took their revised activity-based unit objectives from the grid and filled out a unit record sheet on which they recorded which areas each activity-based unit objective was aligned to. It seems amazing, but the result of all this work actually fits into one three-ring binder that I have on my desk. Each grade level consists of 10-15 sheets; each sheet represents a unit. This book records the staff's promises to each other and, what is more important, to the students and their parents.

Ed: Now for the first time ever in my teaching career I am confident that I am teaching and students are learning, not just covering, all the important concepts in math. I don't have to worry or feel guilty about not doing the best job for students.

Deloris: And we have managed in the space of one year to get agreement within and between grade levels about what is most important for our students to learn in math. We now have a balanced and aligned curriculum that has been validated by the school district's teachers. Next, we invited some teachers and administrators from the Association of Supervision and Curriculum Development to be our "external" validators. They took a look at the grids, validated that we had successfully aligned the activities to the standards and the standardized tests, and then made comments about areas in which they thought we were still out of balance with too much or not enough emphasis given to various areas. Parents were also pleased that other professionals had examined our curriculum in detail and judged it satisfactory, although we did continue the revision process based on their comments.

Assessing the Curriculum

Each unit is assessed in two different ways:

1. A performance assessment is designed to assess students' conceptual understanding of each activity; and
2. A format assessment gives students practice on the format and concepts aligned with standardized and/or state tests.

As a whole, the balanced and aligned curriculum represents a "bet" that student performance on both types of unit assessments will predict results on standardized assessments. We would expect high unit assessments to result in high standardized performance because teachers develop units where most students will succeed; the unit assessment shows if the promise has been kept, and the unit assessments are aligned with standardized assessments. Where this is not the case, teachers and administrators can examine and fix the problem.

Deloris: Assessment is like a bet: We're betting that if students do well on the 1's activities we describe in each unit, then they should do well on the end-of-year assessment and/or the standardized assessment. We want a predictable curriculum with no surprises or disappointments.

Ed: What we had to do was decide as a grade-level how to assess those activities. I was relieved that we didn't have to invent a whole new assessment process, since the assessments emerged from the activity-based unit objectives.

Anne: Our grade-level conversations around how to assess the activities really pushed us to think about all the issues I learned about performance assessment in my masters' program. The activities are performances. We are designing instruction, and we are promising the next grade-level that students will be able to satisfactorily complete these activities or performances. Our grade-level conversations pushed us to define for ourselves, in ways that everyone could agree on, what was a satisfactory performance.

Ed: Fortunately, we have had some staff development on rubrics, which became a useful tool for defining different levels of satisfactory and unsatisfactory performance on the unit's activities.

Anne: And we learned that while each of us had our ideas about satisfactory performance, when we sat down to combine our ideas, we usually finished with ideas that were stronger than the initial, individual ones.

Deloris: Using student work to refine rubrics really pushed teachers to become more specific about satisfactory performance. I think sharing their intuitions helped them refine and raise their own expectations.

Anne: Because we now had similar expectations and conducted the same assessments, certain columns in our grade books were the same for everyone in the grade level.

Ed: Let's not forget the other aspect of assessment. While satisfactory performance of the activities made sure students could demonstrate an understanding of the content, we also needed to make sure that there was "format alignment" in which students practiced answering questions on the unit's content in the standardized or state test format. We used the grid again, to identify which areas from the standardized assessments were covered in our units. Then we checked the testing company's resource book to see how the format of the standardized test was described.

Deloris: I am proud of this faculty because they have collaborated on having one content and one format assessment for each unit. They use the assessment as a way to discuss both student work and their own teaching approaches and strategies. Now that most of the assessments have been developed, they can reuse the assessments next year, thereby saving time usually used in creating new assessments.

Anne: I was chair of the committee that designed how we would collect the information from the unit tests to see if we had won our bet: that satisfactory performance on the unit assessment would mean good scores on the standardized test. We had representatives from each grade level and the principal on the committee. At first, teachers were suspicious of how this information would be used, particularly if it would affect their evaluations.

Deloris: I assured them that it wouldn't. I tried to be clear that we wanted to use this information to identify our strengths and needs and to see if we won the bet. But there was still some resistance. We discussed the issues fully at the School Planning and Management Team meeting.

Anne: Finally, the committee recommended to the SPMT that teachers would turn in student results to their grade-level chair, who would keep the results confidential. Then the chairs would report to the principal's secretary that teachers had completed the unit.

Deloris: In this way, I knew we would have the information on file while teachers were reassured that it would not be used in an evaluation. However, I did have enough information to know whether teachers were falling too far behind and wouldn't be able to help students understand important concepts that were promised to the next grade level. This allowed me to problem-solve with a few teachers on how to meet their promises to the next grade level when they got behind.

Ed: When we got our standardized scores back at year's end, we examined the item analysis and made a list of areas we did well in and areas where we needed improvement. Then we took out the grids that recorded the alignment. The grids showed us which activities were keyed to the tested areas. The standardized assessment confirmed the curriculum activities in which we tested well, while showing which activities needed to be strengthened. To do this, we knew the areas where we tested well and found the associated aligned unit activity. The data confirmed these units were doing the job. Then we examined the tested areas where we didn't do well, found the aligned units and activities on the grid, and went into problem-solving mode.

Anne: Were the activities difficult enough? Was the assessment really aligned? Had we spent enough time on the unit? Did we need to build in review of the concept more frequently during the year? Did we need to build this into other unit activities? Did we need to rethink and revise the unit assessment?

Deloris: Fortunately, we built in time for each grade level to spend two days during the summer completing this activity. Then, at a fall faculty meeting, we shared our work and discussed implications for the changes between grade levels. At the beginning of the year, everyone knew what promises we would make to the next grade level for the coming year, and the faculty received the published curriculum. *Anne:* Looking back, what seems to be an overwhelming task has really helped me improve how I think about what I teach. Now things seem much more logical and connected. *Ed:* I don't worry about whether the emphasis I am

placing is right and appropriate. I know it's the best our grade level knows how to do. Better yet, we know how to fix it when the program doesn't meet our expectations.

Deloris: We also need to complement the district administration for helping to bring this focus to our school. As you remember, they came after each step just to make sure we were on the right track and to learn what they needed to know about implementing this process in the schools that begin it. I feel that the structures and processes of the School Development Program directly address curriculum and child development issues in the school.

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