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Workshop to Support Vertical Articulation at Discovery Canyon Campus

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WORKSHOP TO SUPPORT

VERTICAL ARTICULATION

AT DISCOVERY CANYON CAMPUS

by

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ABSTRACT

Workshop to Support Vertical Articulation at Discovery Canyon Campus

   This project is presented in the form of a PowerPoint, which is designed to guide reading and writing teachers at Discovery Canyon Campus through a work session on curriculum alignment. The researcher reviews research on how vertical articulation and aligned curriculum contributes to higher student achievement as well as strategies for effective professional development sessions for teachers. The project is part of the longer process of developing an aligned curriculum at the researcher's school, which encompasses grades kindergarten through 12. The goal of this second step in the process is to evaluate the current curriculum against state standards so teachers will see what other work must be done to align what is taught with those standards.

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Chapter 1

INTRODUCTION

Teachers and administrators at schools with more than one grade level must

ensure that the learning experiences of students follow a logical progression in content

and skills as they move from grade to grade. In fact, a viable curriculum, one that

matches the content specified by the state or district, has the most impact on student

achievement (Marzano, 2003). In order to achieve the goal of aligned content, teachers

must collaborate as they develop curriculum at each grade level. Collaboration begins

with professional development, which has been designed to explain the problem and

generate commitment from teachers to complete the complex task, a process that may

take several months.

Statement of the Problem

Teachers are charged with the instruction of students in their content area

according to the standards of the state in which they work. Many school administrators

establish committees of content experts to develop a document that outlines which

standards based skills and concepts will be introduced, reinforced, and assessed at the

grade levels of their school. This document guides teachers in the design of curriculum

and assures that all standards and benchmarks will be taught over the course of the grade

levels at that school. The administrators at Discovery Canyon Campus, a K-12 school in

Academy School District 20 in Colorado Springs, Colorado, have established committees

for every content area with the goal to align the school curriculum to state standards and

to ensure meaningful spiraling of that curriculum across grade levels. This project was to develop the first professional development session in which teachers evaluate their initial work on mapping their curriculum and decide collaboratively on the next steps in the process.

Purpose of the Project

The purpose of the project was to design a presentation and workshop to guide teachers in the development of vertical articulation based on the proposed Colorado State Standards for Reading, Writing, and Communicating (Colorado Department of Education, 2009) at Discovery Canyon Campus. The author will lead a professional development session in January 2010 with the goal to take current units and lesson plans from teachers across the 12 grade levels and map them to the proposed standards. The professional development session will be for teachers of Language A, which is the term used by International Baccalaureate schools to designate instruction for the native language of the students. The presentation is one in which teachers set timelines and establish teams to achieve the goal of a K-12 vertical articulation plan that is aligned to the state standards.

Chapter Summary

In order to create a successful plan to align the curriculum of a content area, teachers involved in its creation must understand the value and effectiveness of such a plan. This researcher reviews research on curriculum alignment and its value to educators and students in Chapter 2. In addition, the qualities of the adult learner are explained in terms of how they play a role in the development of effective professional development sessions.

Chapter 2

REVIEW OF LITERATURE

In the field of education, the terms, curriculum alignment and vertical articulation, are closely related. Curriculum alignment refers to matching what students are taught to what they are tested on, an obvious yet not always practiced method to arrange educational plans (Bergman, Calzada, LaPointe, Lee, & Sullivan, 1998). Both processes require time, thoughtfulness, and dedication on the part of the educators involved in the development of such plans for their school. For many researchers, an aligned curriculum includes vertical articulation across grade levels. The author's goal for this project is to develop a presentation that guides teachers in the development of a vertical alignment plan for Discovery Canyon Campus, a K-12 school, in Academy District 20 in Colorado Springs.

In order to achieve an aligned curriculum, teachers in the same content area across the grade levels involved must work together effectively. Professional development, which is geared toward the needs of adult learners and is effective at the development of a collaborative atmosphere, must be part of the development of an aligned curriculum. If teachers do not understand the product they are supposed to create, or its importance, they will not work together to complete the assignment successfully.

In addition, as Fogarty and Pete (2007) discussed, participation in effective professional development sessions gives teachers the time and opportunity to change their practice so that later they realize that the change produces higher achievement.

Only when they recognize that change has occurred do teachers then alter their beliefs. The change in beliefs is the process which makes the adoption of those new practices permanent.

<div align="center">Vertical Articulation and Student Achievement</div>

The current movement in education toward standards based instruction has its origins, in part, in studies (Danielson, 2002) that showed students from low socioeconomic status (SES) neighborhoods fared far more poorly on standardized tests than those from higher SES areas. In addition, Danielson found that students in the United States did not have as strong a background in mathematics or science as students from other countries, especially Japan. The changing global economy and the need for higher level thinking skills seemed to point to the deficits in the current educational system. However, the establishment of national or state content standards does not by itself guarantee higher student achievement. Those standards have to be translated into objectives and then, finally, into lesson plans that teachers use in the classrooms.

<div align="center">*Alignment of Curriculum to Standards*</div>

Marzano (2003) identified five factors at the school level that affect student achievement: (a) guaranteed and viable curriculum, (b) challenging goals and effective feedback, (c) parent and community involvement, (d) safe and orderly environment, and (e) collegiality and professionalism. The first factor is the only one which is addressed in this project. Marzano defined guaranteed and viable curriculum as a combination of the opportunity to learn and time (Marzano, 2000a, as cited in Marzano). The first factor, opportunity to learn, is described as whether students had equal access to the content and skills that the achievement tests measured. The second is whether, during the school

year, there are sufficient instructional hours for students to learn what they are supposed to learn.

Marzano (2003) found that, while state and national content standards define what is supposed to be taught, often, teachers implemented lessons that differed from those standards and, finally, that students may not have learned the content that teachers intended. Teachers make their own choices on what to cover and in what depth, which can leave students with gaps in their learning. Moreover, students in the same grade at the same school may have different gaps because of the different teachers they had, which creates a situation in which it is all but impossible for later teachers to address those deficiencies adequately. The use of a guaranteed curriculum would: (a) make it impossible for teachers to ignore the state or district guidelines for their content area, and (b) ensure that all students have the opportunity to learn what is expected at every grade level. In order to avoid teacher divergence from the predetermined curriculum, administrators must have a method to make teachers accountable for it, such as a requirement that teachers submit unit or lesson plans to their administrator.

Time is the other piece to a guaranteed and viable curriculum (Marzano, 2003). Time is defined as whether a given school staff can cover the assigned material adequately in the time allotted. To know whether there is sufficient time, educators must determine how much time is needed to teach each required skill or piece of content, and then determine whether there is enough instructional time to do just that over the course of the school year. Often, the calculation results in the realization that there must be choices made between the essential, standards based instruction, and other activities that teachers would like to cover in class. It is worthy of note that Marzano found that

educators in other countries, such as Germany and Japan, require fewer topics or concepts to be covered every year in comparison to those in the United States, and often, children in those countries spend more time in school than U.S. students.

Once the essential content is determined, curriculum developers must decide how to sequence that information so that students have multiple opportunities to learn it (Marzano, 2003). A map or a list that indicates how the skills are taught from year to year would help teachers determine whether students have had enough exposure to achieve mastery of the content or skill. While this process ensures that all students have an adequate opportunity to learn, also it is the best way to predict success for all students, regardless of SES.

Danielson (2002) discussed the concept of a logical sequence of curriculum as well. For instance, concepts such as fractions may be introduced in a simple manner at first, but revisited in more and more complex ways as students progress up through grade levels. The topic is similar, but the objectives are much different as students grow older. Obviously, high school students have a much greater capacity to understand complex ideas than elementary students, so they can build on prior knowledge of content areas with assignments and learning that require higher level thinking. Educators must map out: (a) what will be taught, (b) what must be known before new concepts are introduced, and (c) what the specific objectives are in order to develop a successful and rigorous curriculum.

It is simplistic to note that the best way to measure learning is to develop goals, instruction, and then assessments to measure whether those goals have been met (Anderson, 2002). However, this triangle, which describes curriculum alignment, is one

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of the most difficult to implement in schools. The analysis of instruction at a given school compared to its stated objectives is a complex task, given all the variables involved. However, the use of an aligned curriculum can better highlight good teaching. If teachers use proven instructional strategies to teach content that is not assessed, the results of standardized achievement tests will not reflect the effective teaching methods. Finally, the use of curriculum alignment provides a way for school officials to show accountability to their communities, in that, standardized test scores will show whether students have learned the objectives set by the state.

Clarke, Stow, Ruebling, and Kayona (2006) identified five parts that make up the framework of curriculum development: (a) set of beliefs about a content area; (b) major themes in the content area; (c) statements for each theme about the general learning goal; (d) scope and sequence grids; and (e) unit plans that define what will be learned, how teachers will know whether students have achieved mastery, and how the skills and content will be taught. As the various parts are written, teachers must expect the pieces to undergo revision, both initially and after it is first completed. To be effective, the document must be detailed and comprehensive. Clarke et al. suggested that "Each learner outcome is written for a specific level of Bloom's Taxonomy that is appropriate for the level of learning" (p. 259). The comparison between the goals and Bloom's Taxonomy may be a good way for educators to judge the effectiveness of the different parts of the framework.

Jackson (2009) discussed curriculum alignment as a way to streamline the process of teaching. If teachers think of the standards as the "final destination" (p. 57), it becomes clear that they are the learning goals, which students should be focused on for

the year. If teachers ensure that all activities are related to the learning goals, students

will have ample opportunity to practice the skills and master the content that is the focus.

In addition, it is important to communicate the objectives to both students and parents, so

everyone will be able to tell when mastery is achieved.

Effectiveness of an Aligned Curriculum

In Camden, New Jersey, Brent and DiObilda (1993) tested the effects of

curriculum alignment when they compared the results of standardized tests among

students who were taught a curriculum aligned with the test and the results of the same

tests from students at another school, which used a direct instruction model that included

a tightly scripted curriculum. In addition, they evaluated the achievement patterns of

students who remained in the same school with the same curriculum for multiple years

compared to those who did not.

At the time of the study, Camden was an economically depressed area of about

87,000 residents (Brent & DiObilda, 1993). About half the families received welfare,

there had been a middle class exodus, and physical facilities were in disrepair. Also, the

population of poor minority children was growing. The Camden School District

administrators set a goal to raise the standardized test scores of elementary age students.

School officials aligned the reading, language arts, and mathematics curricula with the

skills measured by the Comprehensive Test of Basic Skills (CTBS; Harris, 1981, as cited

in Brent & DiObilda), which the district used as its standardized test. School officials

identified the skills on the standardized test and compared them with the skills taught in

the current curriculum. Where differences were found, the curriculum was revised, and

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supervisors helped teachers to implement the revised instructional materials. All elementary schools in the district, except Davis School, used the aligned curriculum.

Davis School was chosen to participate in Follow Through, a federally funded program created in 1967 (Brent & DiObilda, 1993). The grant program was designed to continue the education, health, and social services to low income children who had been part of the Head Start program. Federal Follow Through officials gave the city of Camden a grant in September 1988 to implement a direct instruction model at that school. Educators, who were trained in direct instruction, analyzed the objectives and broke them down into components to create teacher guides. The scripts used by the teachers included positive reinforcement and immediate corrective feedback. The Camden school officials believed that the documented success of direct instruction could be replicated at Davis School.

At first, the Davis School teachers were worried that, if they followed direct instruction rather than the aligned curriculum, the standardized test scores of students would decrease (Brent & DiObilda, 1993). However, the school administrators told them they would not be required to meet the district objectives associated with the aligned curriculum. Also, a direct instruction coach assisted the teachers in the implementation of the program.

Two elementary schools in Camden participated in the study conducted by Brent and DiObilda (1993). In both, there were kindergarten through fifth grade students; the schools were about a mile apart. One adopted the aligned curriculum, and the other implemented direct instruction from the Follow Through grant. The performance of students on both standardized tests was mixed. Also, the researchers evaluated the

performance of the stable against the performance of the more mobile students; in most cases, the stable students performed better on the standardized tests than the pupils who moved more often. Overall, the researchers found that the academic achievement of their students was promoted in both programs, because the mean scores on both tests were near the 50th percentile. Urban schools like those studied in Camden may benefit from the use of a traditional, aligned curriculum, which includes quarterly objectives, because it requires strict adherence to learning objectives that are linked to a standardized test. Difficulties may arise, the researchers suggested, if the standardized test is changed or if the district selects another assessment to give students. However, the direct instruction program, while not aligned to a specific test, also shares some of the same rigidity in teaching methods, and it proved successful with the pupils in the study.

In another study conducted in Texas, Weiher, Hughes, Kaplan, and Howard (2006) found that smaller scale reforms, which included curriculum alignment, had an impact on whether Hispanic American high school graduates planned to go to college. Six school districts were selected to participate in the federally funded program, which was titled Texans Getting Academically Prepared (TGAP); approximately 17,000 secondary students, from economically disadvantaged districts with predominantly Hispanic American enrollment, participated in the program.

The TGAP program included five distinct goals (Weiher et al., 2006), which were designed to have an impact on the teachers, students, and parents in the affected districts. Teachers received training in the following: (a) Advanced Placement (AP) teaching techniques, (b) vertical alignment of curricula, and (c) the use of specific strategies such as Thinking Maps. In addition, teachers had the opportunity to work with an advisor or a

faculty member from a local university. Second, the staff of all six districts adopted the

Recommended High School Curriculum rather than the minimum curriculum. The new

curriculum offered more courses in science, mathematics, social sciences, and languages.

All students were eligible to enroll in AP courses, and they were encouraged to enroll in

at least one of these more challenging courses. Third, district officials implemented

different methods to involve parents in their children's education; among these outreach

efforts were counseling opportunities about college entrance requirements and financial

aid during after work hours and field trips to colleges and universities. Administrators

and teachers participated in neighborhood visits to distribute information about

academically rigorous courses and college opportunities. Fourth, local business people

visited eighth and ninth grade students to discuss how education helps people achieve

personal goals, and in some areas, students had the opportunity to job shadow. Finally,

the materials, which were distributed or shown to parents, were available in English and

in Spanish. Weiher et al. found that the likelihood of parents' report of college

attendance improved with an increased number of Gaining Early Awareness and

Readiness for Undergraduate Programs (GEAR UP) events attended by students and

parents. The impact of even a few GEAR UP events for disadvantaged students was

markedly greater than for those students who were considered members of other types of

households.

Weiher et al. (2006) reported that the results must be balanced with some

limitations to the study. The Hispanic American students targeted in the study attended

schools where Hispanic Americans was the majority ethnic group, not only among the

student body but also among teachers and administrators. Weiher et al. pointed out that

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because they were the majority population, these students may not have faced the same feelings of isolation that students who are minorities in their schools must deal with on a regular basis. The situation of being a minority may present an obstacle for these students to remain in school or pursue postsecondary education. In addition, the researchers reported only on whether the students were planning to attend college, not whether the students actually did attend or achieve a postsecondary degree. However, they pointed out that this relatively small attempt at reform had meaningful, measurable results in these six Texas school districts. Weiher et al. suggested that continued efforts with these narrower interventions targeted to the most at-risk populations may achieve the desired reforms more than a wholesale change to the United States educational system.

Bergman et al. (1998) conducted a study in Texas that consisted of two parts: (a) a survey of school district superintendents about vertical articulation and teacher collaboration; and (b) an analysis of the standardized test scores of the students in the districts whose school officials responded. The researchers sent surveys to 47 South Texas school districts; 23 completed ones were returned. The possible responses for the degree of vertical alignment and collaboration ranged from 1, meaning the respondent disagreed, to 7, meaning agree. The lowest response on the question was 4 and the highest was 7. Researchers then analyzed the data from the Texas Assessment of Academic Skills (TAAS) and the percentage of Grade 10 students who passed all parts of the TAAS test.

Bergman et al. (1998) found students from all the districts included in the study showed growth in achievement, no matter the degree of vertical collaboration that was

reported. However, the researchers acknowledged limitations to the study, which

included the fact that school officials from the different districts may have had varying

definitions of vertical collaboration or alignment. In addition, because all district

officials reported some degree of vertical articulation, it was impossible to measure the

difference between these districts and others in which the teachers did not collaborate in

this manner. The researchers acknowledged that they may have received different results

if they had sent the surveys to individual schools rather than the central offices of

districts. Finally, in order to truly measure the effectiveness of vertical collaboration, it

would be important for researchers to study student achievement over several years, not

just the 3 years of this particular study.

Curriculum alignment was found to be an effective strategy to increase

mathematics achievement among third grade students in the Dekalb County School

System in Atlanta (Mitchell, 1999). Mitchell compared how third graders performed on

the Iowa Tests of Basic Skills in 1996 to their subsequent performance in 1997. All

students in the county school system were assumed to be exposed to curriculum

alignment, so the study included no control group. The school populations in the survey

area had a majority of African American students.   The curriculum alignment between

the textbooks and the objectives of the standardized test was completed in June of 1996.

The schoolwide scores were analyzed for the purpose of the study and represented more

than 6,000 third grade students.

Mitchell (1999) found that the difference in the scores from 1 year to the next was

statistically significant, $t(-2.99)$; however, there was no statistically significant difference

in the effects of curriculum alignment when analyzed by other factors such as: (a) race,

(b) gender, (c) SES, and (d) school size. After the year of alignment, there was a national curve equivalent (NCE) of 5.12 points among the students in the survey. Mitchell suggested that the use of curriculum alignment provided equity for students, at least in mathematics.

<div align="center">Professional Development for Teachers</div>

Teachers attend many professional development sessions throughout their careers, and as Fogarty and Pete (2007) described, often educators become skeptical about new strategies and plans to improve student learning. Research alone is not enough to change teacher beliefs about practices or programs. In addition, presenters must tailor the content to the needs of adult learners to engage, inform, and ultimately, convince them to try something new, which in this case, would be the alignment of their content area curriculum.

<div align="center">*How Adults Learn*</div>

Fogarty and Pete (2007) cited the three tier change process developed by Fullan and Stiegelbauer (1991). The first stage is to initiate or introduce the change. The second is to implement it, or apply the activities learned; and the third is to institutionalize the change by establishing how the use of that change will be measured in the future. The findings and process are important, because teachers are bombarded with professional development in meetings, classes, and books that describe new instructional techniques or methods. It is incredibly difficult, however, to incorporate wholesale change without effective professional development that is focused and allows time for teachers to make it part of their professional belief system.

Fogarty and Pete (2007) cited Knowles' (1973) findings related to the needs of the adult learner: (a) adults need to control how they learn; (b) they want to be able to anticipate, test and use their learning immediately; (c) the learning must result in an improvement of their performance or that of their students; (d) the learning must also tap into the expertise of the learner; and (e) the instruction must be appropriately paced. Sessions must be more collegial, in that, adults should feel comfortable to ask questions, alter the pace, and otherwise make the session more relevant to their needs and accommodating to their levels of expertise.

How to Make Professional Development Effective

Professional development must be designed with these abovementioned needs in mind and in such a way that meets the goals of the particular school or district. If teachers cannot easily see how what they learn will improve student achievement, then they will not value the professional development session. Fogarty and Pete (2007) described seven critical qualities of professional development: (a) it occurs over time; (b) it takes place at the work site; (c) it is collegial, in that, it builds a community of learners; (d) it engages the participants; (e) it is offered in a variety of formats; (f) it has identifiable goals that are measurable; and (g) it is relevant and practical. It is apparent that many of these qualities are similar to the characteristics of a successful classroom.

Many of the findings of Fogarty and Pete (2007) are not new. In 1979, Hutson identified similar principles. Professional development should be focused on the improvement of teachers, not on changes in student behavior. With that in mind, training should model good teaching, which includes: (a) active and self-directed learning,

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(b) freedom of choice, (c) demonstrations, (d) trials and feedback, and (e) being adaptive

to real life conditions. Fundamentally, the educational professionals who develop these

sessions should remember that teachers come to training to improve their craft, not

because they have serious deficits in ability or knowledge.

If teachers plan to lead professional development for their fellow educators, it is

imperative that they provide their colleagues with an experience that is both engaging and

valuable to their work in the classroom (Fogarty & Pete, 2007). A facilitator of

professional development should begin the presentation with an engaging activity, make

the goals of the session apparent, and include activities that will keep participants

interested and draw on their expertise to develop the end result. Sessions that allow

teachers the opportunity to merge the new learning with their own knowledge will make

it easier for them to implement the new information in the classroom.

Bull and Buechler (1996) included many of the same suggestions in a manual

they prepared for the University of Indiana. The authors went on to note that it is

important for the educators at a school to identify the needs and goals related to

schoolwide improvement. Educators and community members should play a role in the

identification of those needs, which also should be measurable. Bull and Buechler

related the comment made by one school principal, who noted that teachers had an

epiphany when they realized they could become their own experts and teach each other to

achieve the school goals. This change of mindset can happen only when the process of

constant inquiry, collaboration, and innovation is the norm.

Professional development that arises from identified need should be based on

proven practices (Guskey, 2009). There is too much vague research on the value of

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professional development at this time, and many presenters use the phrase, *research based*, too loosely. Guskey suggested that there are too many variables in a school community to effectively evaluate the effectiveness of a particular professional development. Most school officials implement more than one initiative at a time, which makes it difficult to analyze the effectiveness of one program on its own.

In addition, Guskey (2009) theorized that part of the reason that there is little research on the effectiveness of professional development is because, in part, the consultants who are paid to give the presentations do not want research to show that their seminars do not increase student achievement. Guskey recommended that school officials must be more cautious and check the research behind professional development before it is offered to educators. In addition, school officials must realize that a best practice for one school may not work in another, because the student population and other factors are variables. Instead, administrators should look at the core factors that are common to professional development and adaptable to particular situations. However, none of these proposals are possible without strong leaders who can evaluate the needs of the school or district.

An example of successful professional development is a program developed by the Program for Research and Evaluation of Public Schools (PREPS) and school districts in Mississippi (Bridges, Dilworth, & Ames, 1999). Officials from districts that were members of PREPS asked for help to improve student performance on state subject area tests. The PREPS staff and district educators created professional development that targeted this issue with the assistance of officials from the Mississippi Writing/Thinking Institute (MWTI). Representatives from the various organizations along with expert

teachers developed curricular models that matched the objectives for each content area test. At professional development sessions, teachers received the units as models for the type of curricula they were supposed to create. Also, 5 days of professional development sessions were held over the next 3 months; during these workshops, the presenters modeled effective teaching strategies in each area. Between the sessions, teachers had the opportunity to implement the units and strategies; at followup sessions, they were able to share their experiences. A survey was taken to evaluate teachers' opinions about the effectiveness of the professional development sessions. In the three content areas, Algebra I, Biology I, and United States History, teachers ranked the overall effectiveness at 4.8 on a scale of 5.0.

Similar findings were present in the study Langbort (2001) conducted on the process of professional development in the San Francisco Math Leadership Project, part of the California Mathematics Project. The goal of the project was to increase teacher knowledge and implementation of the reform movement in mathematics instruction and to create teacher leaders at individual school sites who would train others in the new methods. Also, the year long program was designed to increase confidence of teachers in this particular content area and to provide site visits and group meeting opportunities for teachers to discuss this topic. The program staff recognized and tried to address the fears that many nonmathematics teachers carry over from their own elementary education. The program began with a 3 week summer institute, which was intended to expand the teachers' knowledge of mathematics content and instructional strategies. The next phase was a year long program of support for teachers in the form of monthly meetings and support in their journey to become leaders; it was during this time that the participants led

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two seminars at their site about this subject. Teachers who participated in this program were given opportunities to conduct more training sessions or to accept other leadership roles at a district level.

Langbort (2001) reported that, after participation in the project, the teachers used more strategies for teaching mathematics and were more confident about their abilities to do so. In many cases, the teachers used the same strategies that had been practiced on them during the summer institute; these new strategies replaced many of the rote memorization techniques of their own childhood. Langbort found that the most critical element of improvement in teaching was time. The first year of training is just the initial phase to develop teacher leaders and effectiveness in teaching mathematics. The teachers who participated in this program reported that they became more actively involved in their schools, districts, and in professional organizations.

Chapter Summary

The national and state content standards represent an outline of what educational experts have decided children need to learn. However, often, teachers pick and choose among these standards when they deliver content to their students because there may be no guide that shows them how to ensure all students receive instruction in the essential content as defined by the standards. Schools where teachers and administrators have worked together to align the curriculum to the standards are likely to have higher achievement scores on standardized tests that measure learning of state or national standards.

The value of curriculum alignment is clear, yet the process is a difficult one. The teachers who lead professional development with the goal to create curriculum alignment

must use best practices to engage other teachers in this process. A session where adult

learners play a critical role in the creation of aligned curriculum will ensure that the

process will go beyond the workshop and into the classroom. In Chapter 3, this

researcher describes the method for the development of an aligned curriculum, the target

audience for a professional development activity, and the goals and procedures for the

session.

Chapter 3

METHOD

The purpose of the project was to design and lead a workshop to guide teachers at Discovery Canyon Campus in the development of vertical articulation based on the proposed Colorado State Standards for Reading, Writing, and Communicating (Colorado Department of Education, 2009). This author will lead a professional development session in January 2010 with the goal to evaluate the initial data that maps language arts units to standards. Prior to this session, the department chairpersons at each of the three campus levels were charged with the creation of a list of lessons matched to state standards.

At the meeting, representatives from the elementary school, middle school, and high school will evaluate what was developed. The author will guide teachers in the determination of where there is good articulation and where there are gaps, either in the content that was brought to the group or the curriculum being taught. Teachers will set timelines and establish teams to achieve the goal of a K-12 vertical articulation plan that is aligned to the new state standards.

Target Audience

This project is designed for teachers of reading and writing at the elementary, middle, and high school levels at Discovery Canyon Campus. In addition, because all content area chairpersons will develop similar content maps, the presentation will be shared among the campus wide curriculum chairpersons.

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Finally, while the presentation is only for 1 day, the product of a scope and

sequence will be used by all reading and writing teachers present and future.

<p align="center">Organization of the Project</p>

The project consists of a workshop in which teachers will review and evaluate the

work completed thus far. The format is in a PowerPoint presentation that includes time

for small group activities. This project requires a teacher leader to guide the efforts of

other colleagues so teachers will have significant input in the next step. Teachers will be

split into groups made up of various grade levels to promote collegiality as well as to

encourage different perspectives to be heard. Teachers will review the current

curriculum documents (see Appendix A) using a worksheet as a guide (see Appendix B).

The standards covered in the scope and sequence will be compared against the state

standards (see Appendix C). The activities specified in this project are designed to take

up a three-hour session, including break time.

<p align="center">Peer Assessment Plan</p>

The professional development coordinator, a fellow department chair, a teacher

earning her administrator license, and an administrator reviewed the presentation. They

were asked to provide feedback on the following questions: (a) What elements are

unclear or need further clarification? (b) Are goals for the day clearly stated? (c) Is the

length appropriate for the time allotted? (d) Do the evaluation activities offer enough time

for teachers to evaluate and reflect on the mapping completed up to this point, with

opportunities for honest discussion? (e) Do the activities provide opportunities for team

building across grade levels? (d) Does the closing activity clearly set up the next steps

that teachers will complete? This feedback was used to modify the presentation to make

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it more useful and engaging for the teachers who will be involved in the alignment of curriculum. Their feedback is discussed in Chapter 5.

Chapter Summary

The teachers at Discovery Canyon Campus have an opportunity to work with and develop curricula for all content areas that are aligned across 12 grades. While this task is by no means easy, if the teacher leader sets a tone of collegiality and professionalism, while the focus of the teachers is maintained on the task at hand, then it is possible to develop a team of content area experts who will embrace the idea of creating a curriculum plan for grades K-12. The project that teachers will see incorporates a short lecture with other activities designed to allow teachers the time to evaluate and develop the next steps in the process of curriculum alignment. In Chapter 4, this researcher presents the PowerPoint and the other activities for the January workshop.

Chapter 4

RESULTS

Introduction

This project was designed as a PowerPoint presentation to guide teachers at

Discovery Canyon Campus in analyzing how current reading and writing curriculum

matches state standards. It is one step in the long process of developing a complete scope

and sequence that is aligned to standards. The author will act as a facilitator and guide

during this work session, as teachers evaluate the curriculum across the K-12 campus.

Vertical Articulation Work Session

January 2010

Why we're here today

1. Evaluate our current curriculum.
2. Analyze how our teaching matches the standards.
3. Plan our next steps to improve alignment of our curriculum to the standards.

1. Evaluate our current curriculum

- Our current curriculum in Language A is posted around the room.

- Create groups of 3 that include one member from each level.

1. Evaluate

- In your groups, find the following:
  - 3 examples of how content spirals, or how later lessons build on earlier years' content
  - 2 instances of students completing the same type of project in two different grades
  - 1 epiphany or "a-ha" moment

  You have 15 minutes

1. Share findings

Next: Let's start looking at how what we do matches the state standards.

2. Analyze how our teaching matches the standards

Two parts:
- a. Standards at a glance
  - Goal: To discover whether some standards are over- or under-represented in our curriculum
- b. Closer look - match curriculum to standards
  - Goal: To discover whether curriculum covers some standards too much, too little, or just right

2a. Standards at a glance

- Groups will identify which standards are covered by our content.

- Sticky note colors represent standards. Put the correct sticky note on each lesson.

2a. Standards at a glance

Blue – 1. Oral Expression and Language Study
Red – 2. Reading for All Purposes
Green – 3. Writing and Composition
Pink – 4. Research and Reasoning

You have 10 minutes

2a. Standards at a glance findings

Next: A closer look at standards and curriculum

2b. Closer look at standards and curriculum

- Pair with another teacher of students at least three years different than yours.
- Select a packet of **standards** of a grade level that neither of you teach.
- Find the corresponding **list of concepts and standards** taught at that grade level.

2b. Closer look at standards and curriculum

- On the standards list, highlight each standard as you find it on the scope and sequence poster.
- Example:

  If the **Concept** is "cause and effect" and the standard is **3-1-c**, find Standard 3 (Writing and Composition), then highlight all of "c" under standard "1."

  Put checkmarks √ if you find multiple instances of the same standard.

2b. Closer look

As you finish one grade level, select another grade level to analyze until all are complete.

Estimated time: 25 minutes

2b. Findings from closer look

- List any general comments here:

3. Plan our next steps

- Afternoon tasks – grade level groups
    - Plan how to address any missing standards
    - Address duplication within or between grade levels

Copy of plans, plus standards checklist, back to me by end of day.

Thank you

Chapter Summary

In this chapter, this researcher presented the overview for the work session on curriculum alignment. The PowerPoint guides teachers in their analysis of how the Language A curriculum at Discovery Canyon Campus is aligned with Colorado standards on reading and writing. The results from the work session will guide teachers in the development of a curriculum that builds on learning from previous years and covers the guidelines set by the state. In Chapter 5, the researcher discusses the completed project, its limitations, findings from the peer assessment, and recommendations for further development.

Chapter 5

DISCUSSION

The purpose of this project was to develop a presentation to guide teachers in the

evaluation of the reading and writing curriculum against state standards. The

development of an aligned curriculum cannot be achieved in a single work session;

however, this project is designed to begin the process in a professional and fruitful

manner, so teachers will see that the time they spend produces valuable results. The

PowerPoint requires significant teacher participation to create a sense of buy-in so that

teachers will be committed to the project over the course of several months.

Contribution of the Project

The review of literature section of this project provides readers with the necessary

background information to understand why an aligned curriculum is beneficial for

students. In addition, it provides readers with an understanding of the need to make

professional development interactive and valuable for teachers. The PowerPoint is not a

lecture; rather it is a guide for teachers to collaboratively evaluate curriculum across the

grade levels of the campus.

Limitations

It is this researcher's opinion that this project is an example of a well-designed

professional development session on curriculum alignment. However, there are four

limitations to this project. The first limitation is that this project represents a single step

in the long-term process of aligning a reading and writing curriculum. That process is

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much larger than one professional development session and takes place over the course of several months. This presentation, then, may not be seen in the context of the entire process of curriculum alignment. The second limitation is that the project was designed without all the prerequisite materials in place. The researcher is assuming that all teachers will have completed the scope and sequence documents for every grade level by the deadline. If the documents are not complete, the work session will suffer because teachers will not have access to all the available information. Third, the researcher developed the project with only a vague idea of how much time would be available for the work session. The researcher estimated the session would last about 2 hours, and in reality, the session was planned for about 3 hours. Finally, while the curriculum alignment is an important goal for our campus, which encompasses grades kindergarten through grade 12, Discovery Canyon Campus has two other elementary schools that feed into our middle school. Curriculum alignment with those two other schools will be necessary at some point but was not feasible for this particular work session.

<div align="center">Peer Assessment Results</div>

The PowerPoint presentation and the handouts found in the Appendix were given to three educators to evaluate. Two were teachers, including one who is a campus-wide curriculum chairperson like the researcher, and the third person was the professional development coordinator at our campus.

The teachers were asked the questions that were listed in Chapter 3: (a) What elements are unclear or need further clarification; (b) Are goals for the day clearly stated? (c) Is the length appropriate for the time allotted? (d) Do the evaluation activities offer enough time for teachers to evaluate and reflect on the mapping completed up to this

point, with opportunities for honest discussion? (e) Do the activities provide opportunities for team building across grade levels? and (f) Does the closing activity clearly set up the next steps that teachers will complete? The responses to the questions were generally positive. Neither of the teachers offered any specific recommendations related to the questions.

Both teachers praised the clarity of the goals and activities. They also thought that the activities that involved teachers moving around would be beneficial to retaining their interest. One teacher felt that including information about why vertical articulation is important would be useful, while the other did not think it was necessary because the teachers had been charged with the task anyway, and other initial meetings had dealt with this topic.

The professional development coordinator and this researcher met for about 30 minutes to discuss this project. She was so pleased with the project that she wanted all curriculum chairpersons to use the PowerPoint and handouts across all subject areas so that the results would look the same across all disciplines. She did not think that it was necessary to include any information on why vertical articulation is important; rather, she strongly recommended that every slide and every task move the process forward so teachers would see that they were making progress toward the goal of curriculum alignment. She said an entire day would be devoted to the issue of curriculum development, so she suggested that the morning session be focused on an analysis of the curriculum. For the afternoon, teachers would be able to work in grade-level groups to plan how to adjust their current curriculum to better align with the state standards. The PowerPoint was adjusted to reflect these changes.

Recommendations for Further Development

It is the recommendation of this researcher that this project become part of a manual or guidebook for other schools to develop an aligned curriculum. In addition, if teachers provide feedback to this process and subsequent work sessions include changes based on valid suggestions, then teachers will feel part of the process and may be more willing to work on this process and use the aligned curriculum.

Project Summary

Discovery Canyon Campus is an International Baccalaureate school, participates in the Teacher Advancement Program, and is a science- and math-focused school. Teachers have many obligations in addition to planning lessons for their students. The development of a curriculum that is both aligned vertically and aligned to state standards could be seen as yet another obligation to the already heavy teacher workload. The workshop described in Chapter 4 offers teachers time to evaluate and analyze what they teach and offers them an opportunity to see what is happening across many different grade levels at the campus. If teachers spend the time to develop an aligned curriculum, students will benefit from learning from an organized curriculum that builds upon previous years' learning.

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APPENDIX A

Example of Scope and Sequence Worksheet

2009-2010 Scope and Sequence
Course: 7th grade Language Arts: Braswell, Murray, Williams

Time Frame	Major Unit	Concept	CO Standard-Benchmark	Begin., Dev. or Secure	Prerequisite Skills		Supplemental Resources	Formative / Summative Assessment
Aug 26-Oct 25	*Chew on This*	*Identify purpose of the media, and pull relevant information from the reading*	*4-3-3, 4-3-a, 3-3-c*	*D*	*Reading, compre-hension, pulling relevant information from the text, inferences*	*Chew on This*	*Fast Food Nation*	*Create a brochure of relevant information*
Aug/Sept	*Chew on This*	*Identify what choices go into planning a meal*	*4-1-e*	*S*	*Reflection, writing relevant information,*	*Interview handout, parent/guardian*	*Chew on This and Fast Food Nation*	*Class discussion, and paragraph reflection*
October	*Chew on This*	*Analyze advertising techniques*	*4-3-3, 2-1-b*	*B*	*Debating*	*Chew on This*	*Fast Food Nation*	*Socratic Seminar*
October	*Chew on This*	View and analyze additional fast food/health facts in Super Size Me	4-2-1, 4-3-1, 4-3-2		Background info from Chew on This and Fast Food Nation	Super Size Me	Super Size Me curric. from DVD	

APPENDIX B

Evaluation Worksheet

Evaluate our current curriculum

Teacher: _____ Teacher: _____ Teacher: _____

Grade: Grade: Grade:

3 examples of how content spirals, or how later lessons build on earlier years' content

1.

2.

3.

2 instances of students completing the same type of project in two different grades

Project type: Grade levels completed:

1.

2.

 1 epiphany or a-ha moment

APPENDIX C

Example of Colorado Standards

Content Area: Reading, Writing and Communicating
Standard: Oral Expression and Language Study

Prepared Graduate Competencies:
➢ Use language to acquire new knowledge through questioning, listening to the ideas of others, and engaging in discussion.

Seventh Grade Expectations

Concepts and Skills students know include:

1. Apply communication skills to listen and contribute effectively in small and large group discussions.

Evidence Outcomes Students can:	21st century skills and Readiness Competencies
a. Contribute ideas, respectfully listen, and consider the views of all participants. b. Ask probing questions to seek further elaboration and clarification of ideas. c. Paraphrase, summarize, or integrate ideas heard to answer questions or propose solutions.	**Inquiry:** • What makes an effective discussion? • How can everyone contribute without a few people dominating the discussion?
	Applying Reading, Writing and Communicating to Society: • Express and support ideas with others. (expressive language) • Listen to and understand a variety of ideas. (receptive language) • Use oral communication skills to foster collaboration • Use appropriate gestures, facial expressions, posture, and body language in a variety of situations (for example: resolving conflicts, negotiating, presenting reports).
	Nature of Reading, Writing and Communicating: • Dialogues to understand and to be understood with consideration for self and others. • Presentations for different purposes and audiences. • Listening contributes to understanding.