Teaching in the Face of Academic Diversity: Unit Planning and Instruction by Secondary Teachers to Enhance Learning in Inclusive Classes

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Abstract

Teacher planning is a highly personal process, one that may be relatively complex when teachers attempt to differentiate instruction. Planning and individualizing instruction also may be problematic, particularly in secondary school settings, because of the curricular demands and the systemic variables that distinguish secondary from elementary schools (Cuban, 1993; Schumaker & Deshler, 1988). The purpose of this study was to explore how secondary teachers make decisions about differentiation in units of content instruction. Questions were developed and posed to the teachers during telephone interviews to document changes in teacher planning processes in conjunction with the development and use of the Unit Organizer Routine. Detailed qualitative analysis of teacher responses revealed that they began thinking more carefully about their emphasis on certain aspects of the content, the organization of content as presented by texts, and the difficulty of learning certain aspects of the content. Despite these changes in planning and unit development, teachers' classroom assessment methods remained unchanged.

Since former Assistant Secretary of Education Madeline Will penned a report to the Secretary of Education titled "Educating Students with Learning Problems—A Shared Responsibility" (Will, 1986), there has been considerable debate over the movement to educate more students with disabilities more frequently in general education classrooms. Services to students with high incidence disabilities have become central within this debate, particularly students with learning disabilities since they are usually educated for at least part of the day in general education classes (U. S. Department of Education [USDOE], 2004). This makes planning and instructional delivery by the general classroom teacher of central importance in order to meet the needs of students with learning disabilities, as well as lower achieving students, as Berliner (1984) noted, "The final arbiter of what it is that gets taught is the classroom teacher" (p. 53).

Teacher Planning

Teacher planning is a highly personal process. Teachers often plan wherever and whenever they can steal a few moments since available planning time during the school day is often used for administrative tasks rather than reflection (Joint Committee on Teacher Planning for Students with Disabilities [JCTPSD], 1995; Lenz, Bulgren, & Boudah, 1994; Travis & Folio, 2001). A simple outline may be the closest thing to a personal plan outside of those offered in published teacher guides (Boudah, Deshler, Schumaker, Lenz, & Cook, 1997). The process of reflective planning is solitary by nature and thus is not easily captured or taught to others.

Unit Planning

Teacher planning that specifically addresses instructional units has many of the same characteristics as other kinds of planning (e.g., lesson planning and course planning). It is nested within longer (yearly) and shorter (weekly and lesson) types of planning in which teachers generally proceed through four steps: (a) gathering content materials, (b) analyzing the content, (c) listing learning activities, and (d) sequencing content and corresponding activities (Clark & Peterson, 1986; JCTPSD, 1995).

As in other types of planning, the focus of unit planning is first and foremost on content and activities that address district and state curriculum goals (Brown, 1988; Hawbaker, Balong, Buckwalter, & Runyon, 2001; Morocco, 2001). In developing instructional units, and perhaps also daily plans, teachers seldom look beyond sources of information readily available to them such as texts, workbooks, curriculum guides, and the Internet (Borko & Niles, 1987; JCTPSD, 1995; Yildirim, 2003). The teacher's goal for unit planning is then to sequence the information for students. By doing this, teachers function more as curriculum *implementers* rather than curriculum *planners* (Boudah et al., 1997; Brown, 1988).

Even though potentially valuable models exist for unit planning (Jitendra, Edwards, Choutka, & Treadway, 2002; Morocco, 2001; Wolfe & Hall, 2003), instructional units may simply be defined in scope and length by textbook chapters and classroom activities. Moreover, rather than addressing important educational goals and objectives, teachers often focus on activities that they believe students will like and those that will maintain a peaceful classroom, (JCTPSD, 1995). In addition, student understanding of unit content is typically evaluated by a summative unit test (Callaway, 1988; JCTPSD, 1995; Morocco, 2001).

Planning Differences by Grade Levels

Planning and individualizing instruction may be particularly problematic in secondary school settings because of curricular demands as well as the systemic variables that differentiate secondary from elementary schools (Cuban, 1993; Schumaker & Deshler, 1988). Secondary settings (middle school, junior high, and senior high) differ from elementary settings in terms of missions, staff development methods, number of students taught by a given teacher, teachers' perceptions of their roles, and scheduling configurations that limit opportunities to meet individual needs (Lenz, Schumaker, & Deshler, 1991).

Consequently, elementary and secondary teacher planning processes differ, resulting in potential impacts on students who are low achieving or those with high incidence disabilities. For example, the planning and instruction of elementary teachers is more likely to be defined as student-centered (Regan & Weininger, 1988; Yildirim, 2003). In a number of studies regarding interactive decision making, all with elementary teachers, Clark and Peterson (1986) concluded that the greatest proportion of teacher thoughts centered on student needs, abilities, and interests. More recently, Yildirim found similar results among teachers in Turkey. Conversely, studies involving secondary schools found that teacher planning processes more often focused on content (Boudah et al., 1997; Lenz et al., 1994; Morocco, 2001) rather than attending to the needs of subgroups or individual students, particularly students with disabilities. Moreover, such a content focus is often compounded by planning time constraints (e.g., Fennick & Liddy, 2001; Yildirim, 2003). As a result, content-oriented teachers typically plan for the needs of a group of average achieving students or a so-called "steering group" (Lundgren, 1972).

Planning for Inclusive Classes

To date, few original studies have examined and reported the planning decisions of general education teachers, particularly at the secondary level, regarding students in academically diverse or inclusive classes. Researchers have concluded that teachers rarely individualize for students with disabilities at the lesson level (Boudah et al., 1997; JCTPSD, 1995; Schumm & Vaughn, 1991,1992; Schumm, Vaughn, Haager, McDowell, Rothlein, & Saumell, 1995). If any adaptations do occur, elementary teachers are more likely than secondary teachers to consider alternative assignments, materials, or assessments in their planning (Schumm & Vaughn, 1991; Schumm et al.; Vaughn & Schumm, 1994). Moreover, few of these studies have been qualitative in design.

Such findings are important given the needs of students with disabilities, particularly students with learning disabilities, and because they are increasingly being educated by general education teachers in inclusive settings for a significant portion of the school day (USDOE, 2004). Students with learning disabilities bring a number of general and specific academic weaknesses to secondary classroom settings, including deficits in information processing skills (e.g., Swanson, 1987), questioning skills (e.g., Lenz, Ehren, & Smiley, 1991), cognition and metacognition skills (e.g., Wong, 1991), social interaction skills (e.g., Schumaker, Sheldon-Wildgen & Sherman, 1980), and short-term, long-term, and working memory processing skills (e.g., Swanson & Cooney, 1991). Additionally, these students often exhibit large deficits with regard to academic achievement (Deshler, Schumaker, Alley, Warner, & Clark, 1982).

Given such student demands, Schumm and Vaughn (1992) concluded that general education teachers lack confidence in their knowledge and skills to teach students with disabilities and feel as if they have little support for attempting to do so. Research has shown, however, that teachers at the elementary and secondary levels can successfully learn to plan and adapt whole-group instruction in inclusive classrooms (Boudah et al., 1997; JCTPSD, 1995), as well as enhance student literacy by teaching complex and abstract concepts more effectively to secondary students (e.g. Bulgren, Schumaker, & Deshler, 1988; Morocco, 2001).

These interventions are viewed as worthwhile by secondary teachers only when they benefit all students rather than represent individualization for just a few students (JCTPSD; Lenz et al., 1994).

This study was part of a larger project funded to investigate teacher planning. The overall purpose of the project was to examine the complex realities of planning for and teaching academically diverse secondary general education classes in which students with learning disabilities were enrolled. This article describes how secondary general education teachers plan for units of content instruction and make decisions regarding differentiated instruction when introduced to a unit organization strategy for use in academically diverse classes. The guiding research question for this investigation was: How do secondary general education teachers approach unit planning differently when introduced to an alternative way of thinking about and presenting content units to academically diverse classes?

Method

Setting

This study took place in one middle school and two high schools within a large, metropolitan area in the Midwest United States. Within the schools, there were three science classes, two history classes, and one geography class in which teachers and students participated in the study. In the participating classes, the average class size was 21 students (range: 13-28). Each of the classrooms was targeted for participation because of the wide range of student performance levels. Teachers reported that all classes contained students who were achieving at the high, average, and low ranges, as well as students identified as learning disabled or as having emotional/behavior disorders.

Participants

Teachers. Three middle school and three high school general education teachers volunteered to participate in the unit planning study, signed letters of informed consent, and were paid a small stipend. Three taught science, two taught history, and one taught geography. There were four females and two males, ranging in age from 39 to 51 years (mean = 44.5). Their total years of teaching experience ranged from 17 to 23 years (mean = 18.67). Five of the six teachers held Master's degrees.

Procedures

Cooperative study group development. A school district administrator was approached regarding our interest in building a partnership to investigate and address some of the district's instructional challenges. After a number of conversations, the researchers defined an opportunity to study general education teacher planning and instruction for meeting the needs of students with disabilities and others at-risk for school failure. An invitation to participate in this cooperative research project was mailed to social studies and science teachers in grades 6-12 in this school district. Based on the invitation, 51 teachers initially volunteered to participate in the larger study. Six of them were selected for this qualitative component.

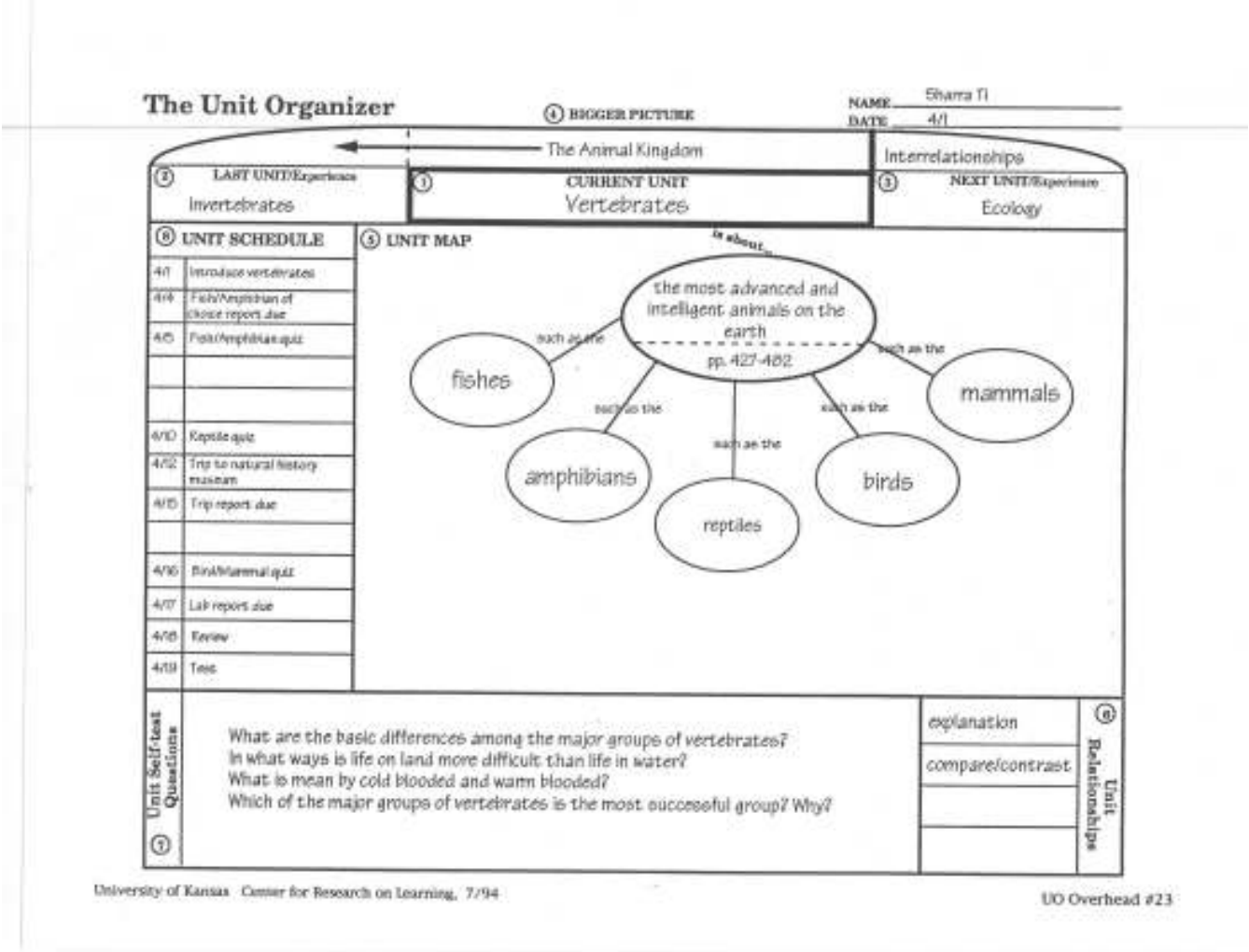
In creating a cooperative research agenda, the first challenge was to design a process to ensure that teachers' voices were heard. Initially, researchers used research methodology related to standards for conducting focus group research (Yin, 1989). Cooperative study groups were created for the purpose of discussing barriers and issues related to planning for and teaching in academically diverse classrooms. At these focus group meetings, a variety of questions were posed to teachers regarding how they perceived the challenge of teaching an academically diverse group of students.

Although an initial goal of the project was to investigate challenges that teachers faced in planning lessons that were sensitive to the needs of individuals with disabilities in the context of group instruction, it became clear that many secondary teachers' decisions that guided instruction were not being made at the lesson level; the most formal and thoughtful planning was being done at the unit level (Lenz, Schumaker & Deshler, 1991). A group of teachers then volunteered to help identify what was involved in unit planning and how unit planning could be influenced to become more sensitive to students with disabilities. This small group of teachers and researchers met monthly for about two hours over the second half of the school year. Through the discussions, the group collaboratively created the Unit Organizer Routine to use in teachers' classrooms.

The Unit Organizer Routine. The Unit Organizer Routine was designed by researchers and teachers as an on-going process to help teachers plan, introduce, and build units to enhance student learning. The Unit Organizer Routine enables teachers to help students (a) understand how a unit is part of bigger course ideas or a sequence of units, (b) understand the gist or central idea of a unit through a meaningful paraphrase of the unit title, (c) see a structure or organization of critical unit information, (d) define the relationships associated with critical information, (e) generate and answer questions regarding key unit information, (f) monitor progress and accomplishments in learning, and (g) keep the "big ideas" and structure of a unit in mind as the unit content is learned (Boudah, Lenz, Bulgren, Schumaker, & Deshler, 2000).

Classroom implementation. After the Unit Organizer Routine was developed, teachers began to use it for planning and instruction. To introduce and teach information in a unit, teachers used a visual device, called the Unit Organizer, to serve as the "centerpiece" of the routine. The Unit Organizer consisted of two pages. Typically, page one was co-constructed by the teacher(s) and students as the unit was introduced. An example of a completed first page of the Unit Organizer is presented in Figure 1. Completing the first page of the Unit Organizer often took an entire class period (i.e., 45-55 minutes) or more, depending on the amount of student discussion and content difficulty. During the remaining days of the unit (ranging from 5-21days), teachers and students co-constructed the second page, which involved adding and connecting relevant and important details in the form of an expanded visual map while participating in other lesson activities (e.g., lectures, films, small group work). A Unit Organizer was not dependent on a textbook and was often used to tie together information in a unit for which there was no textbook or to pull multiple textbook sections, chapters, or sources together to create a unit. For a more detailed description of the Unit Organizer, refer to Boudah et al. (2000). A specific example is provided in Figure 1.

Figure 1. Example Unit Organizer.



Data Sources and Collection Methods

Data included researcher notes recorded while observing three lessons of an instructional unit (the first day of the unit, a lesson in the middle of the unit, and a lesson reviewing the unit information) during one school semester and interviews conducted with the six teachers who participated in the study. Semi-structured interview questions were developed and posed to the teachers via telephone or face-to-face meetings prior to implementation of the Unit Organizer Routine and afterwards to document any potential changes in teacher planning processes. Researchers interviewed each teacher, asking questions such as: (a) What steps do you typically follow in planning units? (b) How do you organize the major topics in units? (c) How do you consider different kinds of learners in your planning? (d) What adjustments do you make to your plans as you continue through a unit? and (e) What amount of planning time do you spend prior to beginning the unit, versus the amount of planning time spent throughout the unit? After teachers began implementing the Unit Organizer Routine in their classes, the interview also included questions about how the

Unit Organizer fit into teacher plans, how it changed their plans, and how much time each teacher took to develop the Unit Organizer for each unit. Interview responses were recorded by researchers on an interview response protocol.

Roles and Possible Biases of the Researchers

Throughout the study, the role of the researchers varied. For instance, during the initial cooperative study group meetings, the role was that of *moderate participation* (Spradley, 1980) as specific on-going concerns of teachers were addressed through open, substantive dialogue. During classroom observations, the role of the researchers would be considered *nonparticipatory* (Spradley, 1980), collecting data through observational notes. During open-ended interviews, the researcher role again was *moderate participation*, as researchers and teachers engaged in conversations based on an initial set of questions.

Researchers came to the study with interest in the success of secondary students with learning disabilities in inclusive settings. Their previous research focused on the development and validation of learning strategy interventions. The researchers also brought many years of classroom teaching experience to the study, as well as questions regarding successfully educating students with high incidence disabilities in general education classrooms in the absence of adequate special education support. These experiences and interests may have influenced data interpretation.

Data Analysis

Observation and interview data were collected and analyzed prior to and after implementation of the Unit Organizer Routine. The analysis was carried out by the project researchers in stages consistent with the principles of theme analysis (Spradley, 1979; 1980) and unitizing and categorizing (Lincoln & Guba, 1985). In the first stage, after interview notes had been scripted or audiotapes transcribed, the project staff read through the entirety of the data, underlining or highlighting units of information (e.g., specific sentences from field notes or an interview quote) that appeared to be evidence of a quality, concept, or phenomenon. In the second stage, the project researchers reread the data with particular attention given to the underlined and highlighted passages. General code names for themes were written on the pages of scripted notes and transcripts (e.g., planning activities, whole group instruction). In the third stage, themes were rewritten onto three-by-five inch note cards, with the tentative theme/code name written at the top of each card. In the fourth stage, these cards were grouped and organized by concurrent or connected themes (e.g., student factors). In the fifth stage, theme organization was displayed in a diagram. In the final stage, theme organization was reviewed by another researcher connected with the study and compared to relevant literature. Any minor revisions were then made.

Trustworthiness

Trustworthiness is often demonstrated in terms of four criteria: credibility, dependability, confirmability, and transferability (e.g., Lincoln & Guba, 1985). In the current study, the criterion of credibility, also referred to as "internal validity" (Merriam, 1988) was met in a number of ways including the triangulation of multiple sources of data (interviews and observations), data collection over an extended period of time, and analysis involving the participation and feedback of the participants. Negative case analysis (Lincoln & Guba) was conducted to incorporate outlier pieces of data in theme analysis and development.

Trustworthiness is also supported in this study by meeting the criteria of dependability and confirmability, also called "reliability" and "objectivity" respectively (Merriam, 1988), in a number of ways concomitant with the criteria of credibility. First, the researcher's position and biases, as well as the purpose of the study, were discussed in previous sections, as were the reasons for selecting teachers for this study. Triangulation of multiple data sources also supports the dependability of findings. Last, a detailed audit trail was devised through the description of the data analysis and coding of units of data from field notes and interview transcriptions. After the themes were organized in the last stages of data analysis, this audit trail was analyzed by other researchers connected with the study, compared to the original data, and considered in light of relevant literature in order to address trustworthiness of analysis as well as credibility of findings and confirmability of observations. Minor revisions were made to the diagram developed in the last stage, and it became the organizer for describing the findings of the study.

Finally, trustworthiness is also supported in this study by meeting the criteria of transferability, also called "external validity" (Merriam, 1988), in ways also concomitant with the criteria of credibility. Foremost, the triangulation of multiple data sources and the detailed description of the setting, participants, and findings in the following section provide the reader with a reasonable basis for which decisions can be made regarding what information from the study can be applied to similar cases.

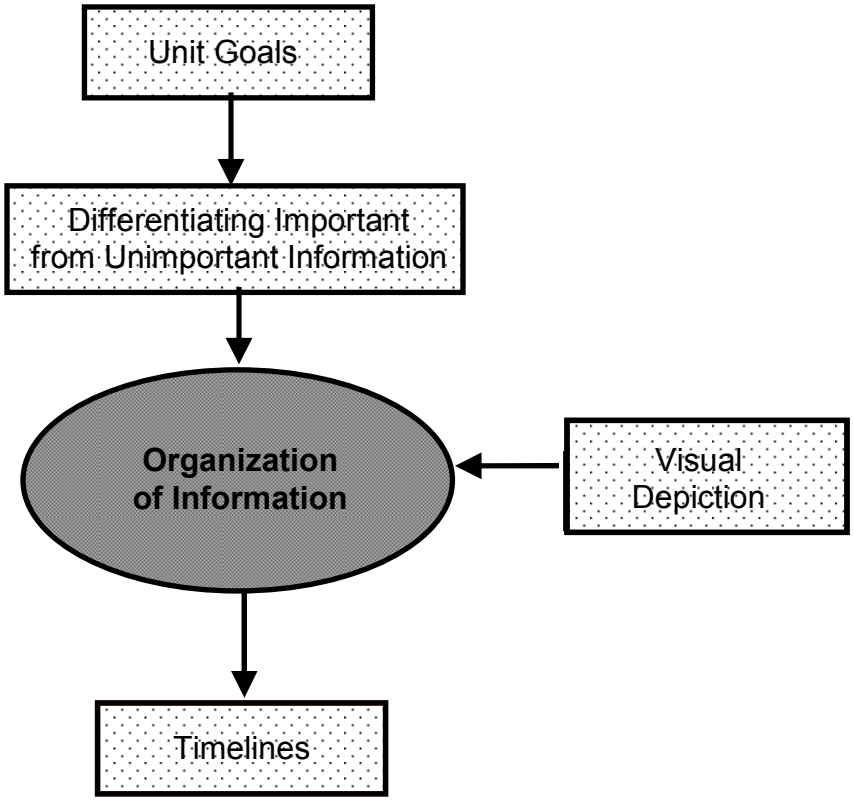
Findings

Prior to Implementation

Prior to development and implementation of the Unit Organizer Routine, researchers observed unit instruction in teacher classrooms and interviewed each teacher about unit planning and instruction. The interview topics included: (a) the steps that teachers typically followed in planning units, (b) the organization of major topics in the units, (c) the ways teachers considered different kinds of learners in their planning, (d) the adjustments made to plans as teachers taught each unit, and (e) the amount of planning time spent prior to beginning the unit versus the amount of planning time spent throughout the unit. Several themes emerged from analysis of observations and interviews. A central theme was the organization of information/content, including key ideas, concepts, and vocabulary. Related to this central theme, other concerns surfaced across teachers during responses to the interview questions. These concerns included the differentiation of important from unimportant information, unit goals, timelines, and the visual depiction of information.

Teacher themes related to initial unit planning might be depicted as shown in Figure 2. As noted, organization of information emerged as the central theme and interest for teachers. This importance is indicated with darker shading in Figure 2. Arrows between one theme and another do not necessarily represent one theme/concept/planning activity leading to another, but simply illustrate an apparent direction of influence.

Figure 2. Teacher unit planning themes prior to implementation.



The observed teachers often followed a planning process that included: (a) reviewing past materials, including the class text, and making relevant content selection decisions; (b) considering key vocabulary; (c) looking at available resources (e.g., other media); and (d) thinking about unit activities. Teachers less frequently considered unit goals, timelines, and differentiating important from unimportant information when planning for units of instruction.

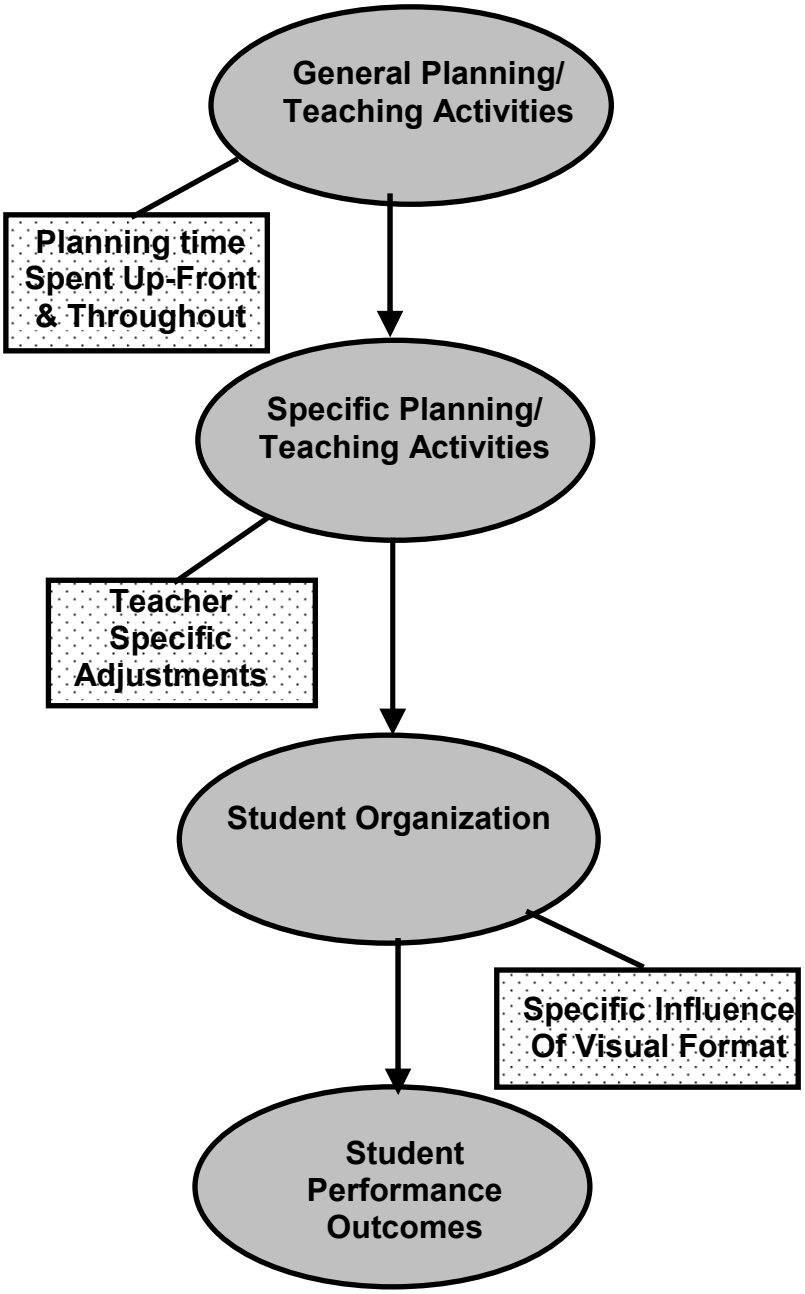
In terms of unit content organization, this group of teachers was, almost invariably, able to list the major concepts and/or parts of each unit that they expected students to know. However, teachers less often discussed the organization of those concepts and parts or provided a clear explanation of this organization. Not surprisingly, teachers indicated that some students struggled with the organization of the unit's information. These difficulties were manifested in important learning tasks such as organizing chunks of information and understanding key concepts or vocabulary. Teachers reported that lower achieving students, in particular, had difficulty understanding the interrelatedness of information and how to make abstract concepts more concrete.

Teachers' planning adjustments varied depending on the unit content. Sometimes they made no adjustments to their plans throughout the duration of a unit, but when they did, teachers were more likely to make adjustments in (a) the timeline (e.g., to spend more time on certain parts), (b) the organization of information in the unit (e.g., middle school teachers made what they called *information webs*), or (c) the visual depiction of concepts. Other adjustments included incorporating current events into unit topics.

After Unit Organizer Implementation

Based on observations and interviews conducted after teachers began using the Unit Organizer Routine, a somewhat different set of themes emerged, though the theme of organization appeared to be maintained. These themes are depicted in Figure 3. When given the Unit Organizer to use, evaluate, and revise, teachers had much more to talk about than in initial interviews in terms of their unit planning. Thus four dominant themes emerged as noted by darker shading in Figure 3. The boxes with lighter shading represent minor themes. Each of the minor themes was connected to a related major theme. Themes that refer to teacher change are grouped at the top and themes referring to student change are at the bottom. Again, the arrows between one theme and another do not necessarily represent one theme/concept/planning activity leading to another, but simply illustrate an apparent direction of influence. Teacher and student themes were connected where teacher activities appeared to impact student activities.

Figure 3. Teacher unit planning themes after implementation.



First, regarding general planning and teaching activities, teachers stated that using the Unit Organizer Routine helped them to become better organized. Other teachers noted that the Unit Organizer Routine "forces you to zero in on objectives" and "to make a timetable." Another teacher reported, "…it [the routine] refined the planning." One of the middle school teachers said that the Unit Organizer took the place of the planning book she had previously used. Instead of submitting copies of her planning book to her principal on a regular basis, she

began submitting copies of her unit organizers. Moreover, the principal was so impressed with the Unit Organizers she submitted that he asked her to conduct staff development on the Unit Organizer Routine during the following year.

Second, regarding more specific planning and teaching activities, teachers reported investing more time in planning, especially prior to introducing a unit. They agreed that "it was worth it" because they felt much more prepared throughout the unit. For another teacher, "The Unit Organizer now becomes the first step in my planning." Teachers also stated that they spent more time planning throughout the unit, particularly developing and modifying the second page of the organizer.

As teachers talked about specific behaviors related to planning and teaching, they said the Unit Organizer affected their selection and organization of content and materials. They began to question the structure of the text they were using and often organized information and understanding in novel ways. "The big decision was looking for level one topics [on the Unit Organizer]," according to one teacher. Closely related to that, another teacher mentioned that she made more choices regarding important and unimportant information. Once the decisions were made regarding the main ideas in a unit, teachers made few if any major adjustments to their plans regarding content, materials, or methods, unless it was a unit the teacher had never taught before.

The third major theme related to student organization. In the words of one teacher, "the information and organization makes more sense to kids." One high school teacher said that the Unit Organizer Routine was particularly helpful for organizing large amounts of information and details in the high school curriculum. When teachers presented and taught content not covered in the text, the Unit Organizer became a “safety net" for understanding that material, which was particularly helpful or useful for low-achieving students and those with learning disabilities. One teacher said that for some kids who struggled before, it was the visuals that "got them through" the units now.

Fourth, regarding the theme of student performance outcomes, most teachers reported high student success, particularly for students who were low-achieving or had learning disabilities. One teacher said, however, that the Unit Organizer may not have worked for some students who already had effective strategies to organize and understand chunks of information. Still, the success rate was hailed as "phenomenal" by one teacher who said that one of her students with learning disabilities went from failing grades to “B's” on unit tests. One teacher recalled that a seventh grader was jotting down information and using the Unit Organizer, when he had never written before "in his entire seventh grade career!" This teacher elaborated, saying that students would ordinarily groan by the end of the school year when faced with this kind of a task, but they did not groan that particular time. He felt strongly that students recognized the value of the Unit Organizer. Based on analysis of teacher gradebooks, however, test scores for some students with and without learning disabilities improved, while others remained about the same. Overall students with and without learning disabilities did improve on a variety of measures, as reported previously by Lenz, et al. (1993).

Discussion

In this study, the process of preparing and implementing the Unit Organizer for classroom use prompted secondary general education teachers to begin questioning their emphasis on certain aspects of the content, its organization in texts, and the difficulty in learning it. The Unit Organizer Routine encouraged teachers to become more organized in their planning. Teachers seemed to spend more time planning units but reported that the benefits were worth the extra time.

In general, teachers found success in developing and using the Unit Organizer Routine and noted student success as well. They noted that the Unit Organizer Routine may work differently for short and long units. They thought the length of the unit would impact the selection of important and unimportant information, as well as the organization of chunks of content. Teachers also noted that it takes some practice to develop and use the Unit Organizer Routine. In addition, just as teacher ownership was heightened by their involvement in co-constructing the strategy, the issue of student ownership was also deemed important for the construction of a Unit Organizer.

Despite many such findings related to the overall research question, there was a discouraging note. Most teachers participating in the study did not alter their method of testing or evaluation of student performance. That is, while teachers used the Unit Organizer Routine to focus on "the big picture," the relationship of information presented in class, most teachers seemed to continue to use tests that stressed recall of facts and details when assessing students' knowledge. This is significant because as long as tests or methods of student evaluation stress memorization of details and facts, many students may not be motivated to learn other information or think about the details and facts in other ways. A teacher's approach to testing appears to send a very strong message to students regarding not only what is important to learn but how one learns (e.g., memorizing facts versus understanding concepts and relationships).

Limitations

Although this study had some of the characteristics of experimental research, strictly speaking, it was not. Therefore, the findings are limited by the methods used. That is, if more traditional quantitative, observational methods were used for measuring changes in teacher performance, the outcomes of the study may have been different. Certainly, the generalizability, in a traditional sense, is limited to the small number of teachers who participated. Given the detailed account of methods used, however, the transferability of findings may be reasonable to similar secondary settings and teachers.

Implications

Previous research has concluded that secondary teachers are less likely than elementary teachers to differentiate instruction for students with disabilities in inclusive classrooms (Schumm & Vaughn, 1991; Schumm et al., 1995; Vaughn & Schumm, 1994). However, the findings of this study suggest that, if given a tool such as the Unit Organizer

Routine, secondary teachers will consider and implement differentiated methods. Therefore, the findings complement other experimental work about enhancing practices of secondary teachers during whole-group instruction in inclusive classrooms (e.g., Bulgren et al., 1988) as well as recommendations made by Jitendra et al. (2002) and the observations of Morocco (2001) regarding unit planning and instruction.

Nevertheless, in an era of high-stakes assessment, the goals of secondary teacher planning need to shift from simply covering the curriculum to enhancing student learning of the curriculum. The fact that teachers in this study appeared to think and teach differently by incorporating a new instructional routine, yet essentially continued their previous practices of assessment, indicates the considerable disconnect between planning, teaching, and assessment. It also may be the case that these secondary teachers continued to think of assessment as simply a summative, rather than formative, activity, a practice heavily reinforced in the current era of extensive statewide testing.

In a larger context, planning, adapting, teaching, and assessing should be considered as connected parts of the entire educational process within classrooms, as advocated by Morocco (2001). Fragmentation in any part dilutes and distracts from the greater goals of learning for all students. Amidst the ever-increasing demands for accountability, a shift in assessment practices, particularly differentiated assessment, will likely require that policy makers acknowledge the value of accepting different outcomes for different learners. Alternative approaches to planning and delivering instruction in inclusive classes need to be considered a part of the broader challenge and responsibility of responding to academic diversity and promoting higher levels of learning for all students within general education classrooms (JCTPSD, 1995).

With regard to the process of systemic change, the research process utilized and the outcomes of this study may signal the value of the co-constructive process for teachers and university researchers. That is, teachers in this study were participant researchers. Teachers helped with the research and development of the Unit Organizer Routine. They reevaluated it with university researchers, revised it, and worked with it in the classroom over several units. It appears that teachers not only embraced the Unit Organizer Routine because they saw that students needed to organize unit information better, but also because teachers gained ownership of a helpful strategy through the co-constructive process. This process was, in a real sense, an “intervention” that included needs assessment, development, research, and on-going feedback. It enhanced communication between researchers and teachers during each unit, communication and feedback during telephone interviews, and dialogue during other informal meetings with the teachers. This kind of dynamic intervention (Boudah & Lenz, 2000) may be a powerful way of creating and sustaining change, particularly in secondary classrooms.

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