Teaching Ideas

The four-square strategy

Michael Brunn

Teachers strive to engage their students in literacy acquisition in ways that maximize their time and materials and that are efficient and effective. We know from decades of reading research, especially in the primary grades, that the use of graphic organizers helps students understand new or difficult concepts about literacy (Dye, 2000; Robinson, 1998). Whether used to depict an entire text's structure or to illustrate related attributes of a concept, graphic and other visual organizers help students to understand interconcept relationships by presenting the information spatially. This is true in regular classrooms and is applicable to students with special needs and those whose heritage languages are not English (Ritchie & Gimenez, 1995–1996).

The central focus in designing graphic or spatial organizers for instruction is to systematically restructure the material in ways that will enhance the comprehension process. When teaching concepts, we know that making the relevant attributes explicit can facilitate children's understanding. Graphic or spatial organizers and the organizational patterns that teachers carefully select combine to influence the comprehension process in positive ways. Students can grasp the concepts in literacy acquisition and content area studies more readily within the context of a graphic or spatial organizer than they can without the illustration of the concepts' attributes (Monroe, 1997; Peters, 1975–1976). Frayer (cited in Peters, 1974–1975) developed a model for concept learning based on these conditions. The four-square strategy discussed and delineated here incorporates many of the same dynamic influences.

The power of Frayer's model lies in the visual imagery presented to the students, but not necessarily in the arrangement of the elements within the model (Peters, 1974–1975). However, in the four-square process, how the attributes are arranged in the graphic or spatial organizer is a consideration. The teacher can lead the discussion of the words and concepts toward topics past and future and focus on the objectives for student learning. The arrangement allows the teacher to have a clear understanding of what she or he wants to address in the activity, and provides the students with a schematic map (Dye, 2000).

The four-square strategy visually depicts interlinguistic relationships to students through the concrete examples of words taken from the students' work. The process is holistic and student centered; the elements being taught are derived from the "scope and sequence" of their literacy requirements and are then applied directly to their classroom work the day they are taught. It is important, then, to select the words for the four-square organizer from the students' daily work in reading and writing. We know that doing so is grounded in proven best practices for literacy instruction (Neuman & Roskos, 1998; Slavin, 1998; Watts-Taffe & Truscott, 1998).

The four-square process

In keeping with a holistic and balanced approach to instruction, the four-square strategy provides a way for teachers to demonstrate to students practical skills and knowledge in the language arts area. This strategy integrates specific aspects of phonics instruction, practice with penmanship, spelling strategies, and vocabulary building as a daily minilesson. In my current work as a teacher educator, I see teachers in many classrooms allocate a certain amount of time to literacy skills to ensure that they are meeting the requirements and that their students will score well on standardized tests. On an average day they require 20 minutes for phonics, 15 minutes for penmanship, 30 minutes for spelling, and 20 minutes for vocabulary. That constitutes a considerable amount of time spent on literacy skills *before* the students have had any opportunities to apply them in authentic activities.

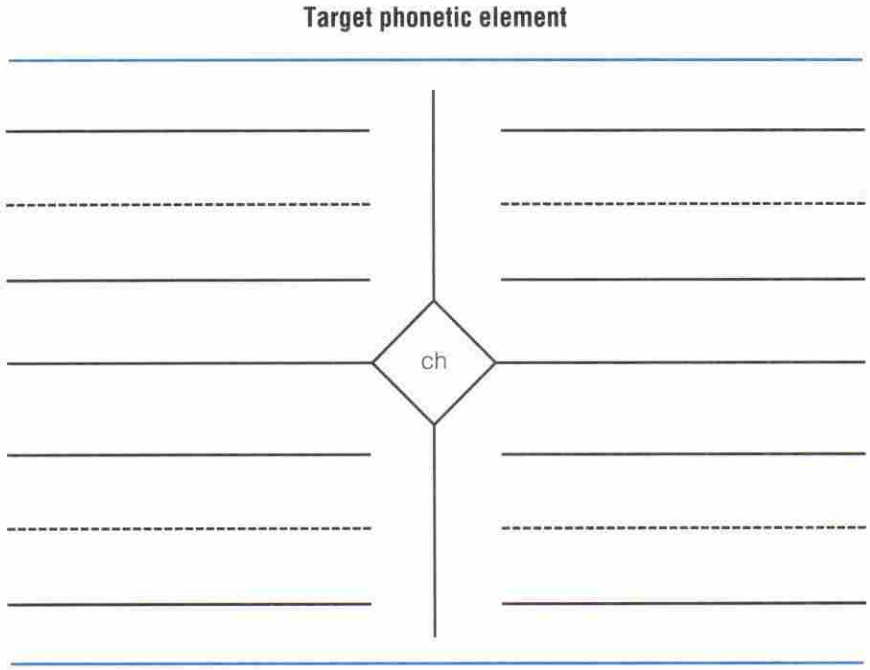
By contrast, the four-square lessons take up to 15 minutes each day, incorporate direct and indirect instruction, and use literacy-building processes and content knowledge at the same time. Moreover, the four-square lessons reflect a research-based paradigm, which incorporates interactive, directed instruction followed by a meaningful and relevant period of practice and application. They are based on the advice of Grossen (1997), Strickland (1998), and Weaver (1998) to not combine comprehension instruction with decoding or skills instruction; the focus should be on a brief, concentrated set of discrete skill

objectives. The opportunities for applying the skills will occur later throughout the instructional day as the students engage in other authentic literacy learning and related activities. The four-square strategy is purposefully designed and scheduled to be used during the start of the school day so that the students have maximum opportunities to continue to develop and support their proficiencies with these skills and knowledge throughout their day.

The following outline sets out the sequence and procedures to conduct a four-square lesson in a first-grade classroom. Lessons would ideally begin at the start of the school year, especially in the primary grades. However, the lessons based on this strategy can begin at any time during the school year when the students are ready to tackle them. The differences would occur in the scope and the focus for the time remaining in the instructional year. It is important to use the structure and the format of the four-square strategy to support what the students are attempting to do, and are engaged in doing, with language and literacy learning. My former first-grade classroom is used to illustrate the procedures, processes, and guidelines. However, the strategy also works well as an instructional tool and graphic or spatial organizer for other content areas, as I will demonstrate later.

The procedure

The planning for this strategy takes time and effort in the beginning, but requires only minimal time each week once it is underway. Before school started in the fall I determined the phonetic elements and linguistic structures my first graders needed to learn in the first marking period. This was based on the scope and sequence prescribed by the district and further delineated in the commercially prepared materials most teachers were required to use. In the beginning of the year I chose elements that I had previously found to be of general use to most first graders. I then used seasons, holidays, and the district and school events to target certain vocabulary they would and could use in their narrative writing and that they would encounter in their basal and trade book reading. When the scope and the focus were set out, I chose one of the elements to work with for a week.



In the Figure, the consonant cluster *ch* is placed in the middle of the four-square diagram for each of the five lessons for the week. While the phonetic element, the consonant cluster *ch*, remained the same, the changes occurred in the examples used to illustrate the phonetic element.

Monday	*chicken, church, Charlie, chin*
Tuesday	*catch, which, watch, match*
Wednesday	*cherry, cheese, chart, chirp*
Thursday	*witch, ditch, charm, chant*
Friday	*chase, choose, chalk, change*

The words are grouped by associations so that they lend themselves to sentence making by the students. For example, one sentence for Monday's lesson might be "Charlie's chin dripped with chicken at the church dinner." A sentence for Tuesday might be "Which watch can you catch to make a match?" The point is for the children to have fun making sentences and to play with language, whether the responses are whimsical or sensible. Note: Beyond the first week or two of school, it is important that the example words come from the literature the students are reading, from the stories they are writing, and from their reading and content studies for the day or the week. This provides them with a bridge between the skills and strategies of these lessons and opportunities to develop and support their new learning within the context of daily classwork.

Each morning I prepared the left side of the chalkboard with the four-square diagram and the requisite words before the students entered the class. On the right side of the chalkboard I drew three and sometimes four sentence lines emulating the standard primary writing paper format. The lines were used to record the sentences students dictated for the day, which they would later copy into their four-square booklets.

Ahead of time I stapled together five sheets of paper with a colored construction paper cover, making one booklet for each student. A four-square booklet page has the Figure on the top half and lines for writing sentences on the bottom half. I usually assembled these on Friday in preparation for the following week. These four-square booklets were on the children's desks when they arrived each morning.

Students turned to the next blank page in the booklet and wrote the phonetic element and the four example words

using their best penmanship. This accomplished, they read and visited until all the students arrived. When the final bell rang announcing the official beginning of the school day, they already had 5 minutes of work finished. After the call to order with the calendar, the weather chart, and the brief announcements for the day, we began to work through the four-square activity. Here are the steps in an abbreviated form.

1. I identified the phonetic element, then explained its use and peculiarities.
2. I pronounced the first word, enunciating each syllable, consonant, and vowel, and called attention to the phonetic element.
3. With me leading, the whole class pronounced the word twice: first slowly and then at a normal rate. This was repeated once or twice.
4. The definition was solicited and discussed briefly with examples relevant to the children's lives. This was repeated for the remaining three words. For each word, the connections were made between these vocabulary words and the children's daily work and with current, popular cultural events in and out of school.
5. A few volunteers were asked to read the words, skipping around the square to vary the pace and make it fun.
6. A few volunteers used as many words in one sentence as they could. Some were rather silly!
7. I moved over to the sentence lines on the right side of the chalkboard and asked for a few sentences that made sense when used together. These usually came from the sentences already offered.
8. Children dictated as I wrote two or three sentences, whatever fit on the lines and made sense. As I wrote, I included the processes of proper letter formation derived from the penmanship book to reinforce correct scripting (a think-aloud activity).
9. After writing the sentences, I called attention to the grammar and mechanical points. There were many opportunities to discuss elements of language with the students including capitalization, possessives, verb tense, adjectives, quotation marks, and plurals.
10. Students wrote the sentences in their four-square booklets using their best penmanship while I took attendance and did lunch count and other housekeeping chores.
11. As each child finished, she or he could read, work in her or his writing folder, or begin other assigned tasks. Students left the booklets on their desks, open to that day's page, for me to check.
12. I checked each individual's work. If all was correct, I closed the book and left it on the desk. If there were errors, I circled them and quietly called the student's name. The student returned to the desk to correct the error(s). I checked the corrections, then either closed the book or called the student again to complete the corrections.

The day was underway with an intense integration of concepts and skills within a short amount of time. That is, the four-square strategy integrated several necessary parts of the instructional objectives that can typically total 60 minutes or more in a regular classroom paradigm and compressed them into 15 minutes or less. Pedagogically, the planned activity was based on the scope and sequence for the grade level, made the students responsible for a significant portion of their learning, and actively engaged them in the process. Further, the skills were holistically connected with authentic uses in their classroom work.

Multiple approaches to learning

I used this strategy 5 days a week; however, 4 days per week would accomplish a similar objective. Each week the students received repeated practice with multiple facets of the required curriculum and with a wide variety of applications. It is important to reiterate that the examples used should come from the literature children are reading, from the stories they are writing, and from their reading and content studies for the day or the week. It was never difficult to find examples. Often the students would recognize their own words on the chalkboard, further connecting the lesson with their activities and validating their learning and efforts. In all, the entire minilesson took 15 minutes or less depending on the amount of discussion they had about the words and the meanings.

The four-square lesson balanced direct and indirect instruction and included processes and content. It incorporated direct instruction when children were told about and shown the phonetic elements, and in many instances when they discussed or discovered the definitions of the words. Indirect instruction was provided orally as they discussed and applied the new knowledge, explored the concepts of the vocabulary, and enhanced their skills. Processes and content were combined as the students used the new skills to decode words, learn new vocabulary, contextualize the meanings, and apply them to form new sentences that were relevant to their learning and to their lives, connecting learning in and out of school.

By extension, math, social studies, and science applications are possible with the four-square concept. The underlying function is to position several related terms, ideas, or concepts around one central element in a graphic or spatial organizer, then to help the students understand the relationships that tie the various parts together. For instance, in a study of "land use and development," the central element is *land use*, with the outlying related terms representing a collection of functions and processes practiced on land having common outcomes or purposes —such as food, lumber, leisure, life. *Land use* would be placed in the center, and the corresponding words (food, lumber, leisure, life) would be written on the lines around it. To extend the discussion, the related ideas and concepts of farming, renewable resources, recreation, and cities and towns could be appropriated. Sentences could be brainstormed and developed to further explicate the ideas of land use. These would help the students link ideas and concepts, thus scaffolding new information and extending their schemas of the study.

A math application could use the integer 9 in the center, with corresponding equations surrounding it, such as $5 + 4$, $3 + 3 + 3$, $12 - 3$, and a clock showing 9:00. In this instance, students are making connections to the various processes of mathematics through the manipulation of symbols while they are exploring and focusing on a common integer. Multiple representations of a single

number, then, can facilitate teaching the vocabulary of mathematics. Furthermore, the graphic or spatial organizer serves as a retrieval system for cues about the processes of ciphering.

Whether used for literacy or for other content areas, the four-square concept can help teachers holistically combine multiple approaches to learning into one instructional unit and increase student learning. The graphic organizer spatially represents the interrelationships of the concepts to students and facilitates the integration of related ideas in new ways. A bonus is that the four-square process can recapture time throughout the instructional day by maximizing the use of everyone's time and materials as effectively and efficiently as possible.

Brunn teaches at the University of Colorado at Colorado Springs (College of Education, 1420 Austin Bluffs Parkway, PO Box 7150, Colorado Springs, CO 80933-7150, USA).

References

Dye, G. (2000). Graphic organizers to the rescue! Helping students link—and remember—information. *Teaching Exceptional Children, 32*, 72–76.

Grossen, B. (1997). *30 years of research: What we now know about how children learn to read*. Santa Cruz, CA: Center for the Future of Teaching and Learning.

Monroe, E. (1997). Effects of mathematical vocabulary instruction on fourth grade students. *Reading Improvement, 34*, 120–132.

Neuman, S., & Roskos, K. (Eds.). (1998). *Children achieving: Best practices in early literacy*. Newark, DE: International Reading Association.

Peters, C. (1974–1975). A comparison between the Frayer model of concept attainment and the textbook approach to concept attainment. *Reading Research Quarterly, 10*, 252–254.

Peters, C. (1975–1976). The effects of systematic restructuring of material upon the comprehension process. *Reading Research Quarterly, 11*, 87–111.

Ritchie, D., & Gimenez, F. (1995–1996). Effectiveness of graphic organizers in computer-based instruction with dominant Spanish-speaking and dominant English-speaking students. *Journal of Research on Computing in Education, 28*, 221–233.

Robinson, D. (1998). Graphic organizers as aids to text learning. *Reading Research and Instruction, 37*, 85–105.

Slavin, R. (1998). Reading by nine: What will it take? *Peabody Journal of Education, 73*, 68–80.

Strickland, D. (1998). What's basic in beginning reading? Finding common ground. *Educational Leadership, 55*, 6–10.

Watts-Taffe, S., & Truscott, D. (1998). Literacy instruction for second language learners: A study of best practices. *National Reading Conference Yearbook, 47*, 242–252.

Weaver, C. (Ed.). (1998). *Reconsidering a balanced approach to reading*. Urbana, IL: National Council of Teachers of English.

Red light, green light, 1-2-3: Tasks to prepare for standardized tests

Kathleen M. Lawrence

Since the mid-1990s, Vermont students in grades 4, 8, and 10 have been required to take the New Standards Reference Exam in the English Language Arts as part of the statewide Comprehensive Assessment Plan. This national test is aligned with Vermont's Framework of Standards and Learning Opportunities, and it includes four parts: Reading for Basic Understanding, Reading Analysis and Interpretation (which includes a written component—a text-based essay), Independent Writing, and Conventions: Usage, Spelling, and Punctuation. The exam yields two types of information: (a) How students perform against particular standards for language arts, and (b) what students need in terms of instruction to achieve the standard in particular areas.

Early test results for the elementary school where I used to work as a librarian were disappointing. Despite our best efforts to provide a workshop environment with students actively engaged in the writing process (selecting topics, writing, conferring, revising, sharing, and evaluating their work) we were still faced with assessments outside of our own portfolio system that focused on the product. Of particular concern (with 70% or more of our students in need of improvement) were skills such as "proving assertions using evidence from the text, examining a text critically, and organizing a text-based essay." These are, in fact, life skills that we want our students to have and be able to demonstrate. It was clear that we needed to strengthen our teaching in reading analysis and interpretation and in writing effectiveness.

As a staff, then, we looked to the data to inform our instruction. What would we need to do to increase student performance on such tests? I decided to explore with students the demands that are placed upon them as writers in the artificial setting of a testing situation and to give them some strategies for meeting those demands. My plan, which will be the focus of this article, was the design and implementation of a 10-week unit for our third and fourth graders using QARs (Question-Answer-Relationships) (Raphael, 1982) to integrate reading and writing tasks. My objectives for the unit were as follows:

1. Increase comprehension of informational text.
2. Help students effectively respond to short-answer questions about a text they've read.
3. Help students recognize and locate textual evidence that supports statements they write about what they have read.
4. Provide students with practice writing a balanced essay on demand, within a time limit, and to a specific prompt.

It was important to me to have minimal disruption to the daily writing workshop block, so lessons for this unit were designed to take place just twice a week for 30 minutes during the writing support times I provided to each class. I made it clear to the students that we would be engaged in a different approach to a written essay, an approach that would be expected of them on the writing test. Students would work without the luxury of a self-selected topic and without the benefits of peer and teacher conferences and multiple drafts. Initially we worked as a whole class. I shared what I was working on with our special educator, and she was able to provide additional support to students in her case load outside of the class writing periods.

Types of questions

After sharing my objectives with the students, I emphasized the following points in my first lesson: