
How Teachers Use the Textbook: Lessons from Three Secondary School Classrooms

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When the science room was nearly filled with tenth grade students, a bell rang. Chris Raymond walked to the front of the room and said, "Take out your homework."

Students rustled through notebooks and binders, each producing a printed 8 1/2 by 11 inch sheet of paper. Chris looked around at the students, checking to see who did and did not produce this paper. Looking down to her own hand at a copy of the same paper Chris asked, "By what mechanisms are amoebas mobile?"

Several students raised their hands. Chris gestured toward a young woman seated near a bank of windows. The student said, "Pseudopods."

Chris asked, "And how do these pseudopods work?"

She nodded toward a young man in the middle of the room who read from his paper in response, "Projections shoot out in jelly-like fashion to pull or push the amoeba forward, backward, or sideways."

Chris said, "What page did you find that on, John?"
"113."

Several students flipped through pages in their textbooks, scanned, and wrote on their papers. This activity continued for a few minutes until Chris said, "OK, pass your study guides to the front of the room. I'll record these in the book and give them back to you on Monday."

Chris then unscrolled a projection screen, turned off the light with a switch next to the door, and walked in front of the counter to an overhead projector sitting in the front of the room. Chris said, "If I remember correctly, you don't have these notes and will need them for lab today."

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She waited as students equipped themselves with pens and notebook, bantering with nearby students. She then turned on the projector light and placed a transparent sheet of plastic covered with felt-penned letters on the projector's surface to begin a lecture, alternately reading from the overhead, holding up jars filled with specimens, referring to diagrams on particular pages of the book, telling anecdotes, or asking questions about the behavior of a particular species:

We're at your favorite word, phagocytosis. Amoebas are fresh water animals. You can find them in lakes and ponds around here. [She named local bodies of water.] So every time you go swimming and take a big gulp of water, think of all the amoebas you're eating.

As some of the students said "Yuck," Chris continued to speak about the components of the amoeba, the paramecium or whatever else was included in her topic for the day. The students copied notes from the overhead.

Despite a large number of recommendations to the contrary (Moore, Readence, & Rickelman, see pp. 5-29, this text), the preceding snapshot represents typical secondary school, literacy-related classroom activity. The purposes of this article are (a) to review the status of textbook use in secondary school classrooms, (b) to examine the specifics of such use from the perspective of three secondary school teachers, and (c) to discuss alternatives to use within the framework of these perspectives.

Background Information

According to a recent review of the literature on secondary reading instruction (Alvermann & Moore, in press), research is beginning to document the nature of and reasons for actual reading practices, including the use of textbooks, in secondary schools. More specifically, surveys and questionnaires have provided us with a broad sense of teachers' and students' perceptions about the use of textbooks in subject-area classrooms. However, because of differences in research methodology, subject-area, and grade level, such perceptions can seem contradictory across studies.

One study found that many secondary teachers require reading in their classrooms but may be sending negative messages to students about the need to complete reading-related assignments (Rieck, 1977). Biology teachers consider the textbook to be an important source of content knowledge while having limited understanding of how these books should be selected or used (Spiegel & Wright, 1984). Social studies teachers seem to have positive attitudes toward use of reading-related instructional strategies, but they too appear to make limited use of such strategies in instruction (Tixier y Vigil & Dick, 1987). In a survey across subject areas, other secondary teachers reported use of the reading of textbooks only to supplement and reinforce other instruction (Davey, 1988).

Recent in-depth interview and observational studies have provided rich descriptions of classrooms to help us understand the context of teachers' and students' perceptions. One set of studies supports the notion that most reading in secondary classrooms is teacher assigned and directed, often through the use of study guides (Smith & Feathers, 1983a, 1983b). Teachers consider the text to be a primary source of information for subject-area understanding, yet little reading is actually assigned or discussed. Further, students report that they believe the teacher is the primary source of information. These students say that they are often able to gain needed information without doing any reading at all.

Another group of studies reports that textbooks are used within secondary classrooms for many different instructional and managerial purposes within the context of a teacher-directed, lecture-discussion format (Alvermann, 1987; Alvermann, Dillon, O'Brien, & Smith, 1985; Ratekin, Simpson, Alvermann, & Dishner, 1985). For example, Ratekin and his colleagues (1985) discovered a predominance of lecture-discussion and seatwork, and textbook reading was relegated to the role of safety net for catching information redundant from class presentations. Alvermann et al. (1985) found that during discussion teachers and students used texts to verify points with direct reference, to support a point with indirect reference, to refocus straying discussions, to assure—by asking students to leave texts closed—that students had completed assignments, and to paraphrase an answer to teachers' questions.

At least three case study reports have suggested that teachers' use of textbooks in instructional decision-making can be described through placement on a continuum (Alvermann, 1989; Alvermann & Hinchman, *in press*; Hinchman, 1987). In one case, a continuum is used to describe the role of the text as information authority in the classroom (Alvermann, 1989). Another study uses a process-product continuum to explore the manner in which textbooks are used in science classrooms (Alvermann & Hinchman, *in press*). As Alvermann (1989) acknowledges, use of a continuum can seem to oversimplify classroom complexities. However, such a framework can also help teachers to examine their own instructional practices with greater clarity.

Case Studies

The case studies which follow are meant to reflect a continuum of textbook use found in another observational study (Hinchman, 1987). The perspectives of the three teachers who participated in this earlier study are included below, each representing a different point on the continuum. At one end of the continuum is a teacher whose decision-making is virtually text-driven. This is Chris Raymond, who methodically covers a science curriculum of explicit facts through lecture and student use of a single textbook. Mary Stevenson, in the middle of the continuum, uses a primary and supplemental social studies texts with activities designed to elicit high-level conceptualizations. At the other end of the continuum is a teacher of English literature who is almost entirely process-oriented. Anthony Pearson reports that he and his students choose texts to develop

literary interpretation processes. For each teacher, the classroom-based use of the textbook is described, the teacher's explanations for that use are summarized, and a critique of the use is presented.

Chris Raymond

Chris' use of the textbook

As noted in the introductory anecdote, Chris' biology class was usually structured in a lecture format and accompanied by hand-printed overhead projector notes. The source for these notes was the textbook. At the end of a section of notes, Chris assigned written completion of selected chapter questions. She reviewed answers to these through whole-class discussion, and she graded and returned these papers to students. This class used the textbook as a reference to complete laboratory guides; completed pages were similarly graded and returned. Chris reviewed terms with students before each test.

Chris' ninth-grade general science course used a contract system. At the start of a unit, students were presented with a list of activities to accomplish. A few of these were laboratory activities whose directions were in the text or on published worksheets and whose completion required observation and text use. Most of the other work involved answering textually-explicit questions printed on worksheets or in the textbook chapter. Much class time was spent with students sitting in their seats scanning pages and copying words onto looseleaf paper or teacher-made handouts. Students approached Chris' desk in the front of the room with paper and book in hand to ask questions. Chris answered these by rephrasing the question, pointing to a specific portion of text, and waiting for the student to answer—a cycle sometimes repeated several times before the student returned to his or her seat. Chris collected completed worksheets, marked right and wrong answers, and placed grades on each. Again, review sessions were conducted before each test.

Chris' explanations of textbook use

Chris Raymond perceived her role as helping urban students who did not see themselves as able. She said, "You want to show these kids, especially [those from] the inner city." In addition, many of her explanations of her instructional decision-making began with "I'm a very organized person." Her attempts to organize were evidenced in the methodical way in which she orchestrated her classroom lessons within a framework provided by the text.

Chris' textbooks were selected by teacher committee to reflect state-required curriculum. Her knowledge of the content of end-of-year tests published by the state and school district helped her to decide on test questions for students to answer. She also used this knowledge to edit the text for her lecture notes. At one point she said she did this "because the reading level of the book [was] too high for some of my students." She reported, "I put page numbers down in the notes so they can go back to the book." She also said that her students didn't know how to take notes. She and the students in

all her classes referred to what “they [final examinations preparers] want” as a means of deciding how to answer questions based on the text.

Chris said that she structured her ninth-graders’ work with contracts to manage behavior. She explained, “The kids have picked up [on the] organization, and they like to work on one number at a time.” On the other hand, discussion and completion of text questions in her biology classes was to provide a review of materials covered in class. Chris explained,

The state gives me an outline: we want you to cover x, y, and z. And it is up to my discretion and my organization as to how I will present it. But I’ve got to know in my head that by the end of May I’ve got to make sure that I have covered a, b, c, and x, y, and z, and pad it with things of interest to the kids. Diversity. What you are interested in, and do we have time to talk about it.

Discussion of Chris’ use of the textbook

Chris was a teacher who probably taught science as she had been taught science—from a book. Her classroom activities were structured in a way which was predictable for students, and this may have provided support for their success. As a third-year teacher, she was also learning quickly about that to which she and her students were accountable: the end-of-the-year test. However, as Jackson (1968) suggested, there was also an implicit curriculum in the classroom activities orchestrated by Chris.

One message sent to her students was that science was a set of facts to be scanned, copied, and memorized from one text. As Alvermann (1989) has pointed out, emphasis on facts makes development of conceptual understanding very difficult. In addition, little was said in Chris’ class about science, reading, or writing as hypothesis-testing or problem-solving processes. Chris assigned and made reference to reading in lectures, but students could easily discern answers by scanning and copying, or by listening to homework review sessions. Test review sessions further told students that paying attention to other lectures and class discussions was not essential. Students who want to learn about science but who are oblivious to the subtleties of the implicit curriculum could have great difficulty figuring out how to be successful in this text-driven environment.

Mary Stevenson

Mary’s use of the textbook

Mary Stevenson had one textbook for each of her seventh-and eighth-grade classes. One was based on state history and the other was a United States history text. Her use of the books overlapped. That is, sometimes she used the eighth-grade U.S. history text to supplement the seventh-grade state history text. She supplemented both books with trade books, speakers, and other resources. She also used workbooks of map and study skills. Most of the instructional activities in Mary’s classroom involved some use of these textbooks. Reading varied: Mary read the text aloud, students read silently, or students read aloud “round robin” fashion from the text. Sometimes students completed

study guides as they participated in small group discussions. At other times she asked students to work independently to write answers to text-based questions.

Mary used study guides to aid completion of small-group reading activities. These activities often included vocabulary work, and literal, interpretive, and applied-level comprehension tasks (Herber, 1978). Students asked meanings of words or called upon Mary to resolve disagreements. They critiqued each others' answers and Mary acted as an arbitrator, sharing her own opinions while explaining that there might be more than one right way to view the answer to the question. She reminded students that topics would be covered on upcoming teacher-made tests. These assignments were reviewed in whole-class discussion and not otherwise graded. Administration of unit tests, commonly those published in conjunction with the text, was usually preceded by a review of terminology and concepts. At the end of the school year, however, Mary's instructional organization reverted to traditional lecture-discussion as she rushed students through workbook exercises and lectured for large portions of class time.

Mary's explanations of textbook use

Mary Stevenson was a seventeen-year teaching veteran, teaching in a rural, K-12 school. She explained her role as one of nurturer saying, "Of course I teach reading. I teach everything." She said that because of the school's setting and the age of her students she felt responsible for helping her students to understand what the rest of the world was like.

She saw her small-group, text-related activities as an attempt to encourage students to read on three levels of comprehension. She said that when she read aloud, it was to get students through long selections of reading quickly. And when students read aloud, she said that it was to be sure that students did the reading. She reported that her use of teacher-made study guides was related to whether or not she had time to develop them or students had time to complete them. Mary also used study guides and tests which were published in conjunction with her texts to save on preparation time. She noted that her switch to lecture-discussion was due to the imminent final examination.

Mary said that her texts provided a topical framework for much of what was covered in class. She said that she knew the published curriculum required by the state but did not often refer to it. She reported selectivity about textbook use, using her judgment to determine when textbooks were in need of some kind of supplementation. For instance, she pronounced the seventh-grade text horrible and supplemented its use with the eighth-grade text and paperbacks on individual content topics or map and study skills. She said,

Resources? Everywhere . . . whatever's necessary. If the book is outdated, I find resources. I've got to teach them current stuff.

Her use of these resources was inhibited by lack of search time and money with which to purchase them. She reported that she looked for books that came with a variety

of instructional materials which she could imagine herself using with her students. In this manner, she seemed to consider the needs of her students and her beliefs about teaching history as she made her selections. She said:

There's not as much individual recognition as I'd like. I try to meet individual [reading] needs, and when I don't it bothers me not having more time to follow through with them, no time to think of something special for them to do.

Discussion of Mary's use of the textbook

Mary's instructional decision-making was text-based but not as text-driven as Chris'. Instead, Mary used her textbooks and her understanding of her students' needs and interests to form a more amorphous curriculum framework. Mary seemed lenient in her interpretation and accountability to the information contained in these texts. The messages which she tried to give to students were that certain understandings relative to historical events were important, that these events could sometimes be learned about through reading, through comparing text resources, or through listening to the words of someone who lived through it.

However, with round robin reading, she also sent messages to students that oral reading ability was important to their status in the classroom. In addition, students may have received mixed messages about how to use textbooks to prepare for tests. Sometimes they were encouraged to interpret and debate, but for tests they were told to get the facts correctly. Review told students they could gain needed information without reading. Mary's mix of instructional activities might have relieved potential student boredom or might have been perceived by her students as confusing.

Anthony Pearson

Anthony's use of the textbook

Anthony Pearson designed his grade twelve writing classes around a contract system similar to Chris'. He used textbooks occasionally for examples when students had need for instruction in a particular aspect of writing mechanics. He allowed his eleventh- and twelfth-grade students in literature classes to select and order their reading of the works of various authors from a variety of texts owned by the school. Anthony reviewed for each test, and he prepared the essay tests which followed reading and discussion of selections. He prepared the final examination for his American literature students. His eleventh graders took a state-wide final examination.

His manner of covering literature was to ask students to read particular selections of text for homework. He presented interpretations and asked questions about these selections the following day in a whole-class discussion. The pattern for these discussions included Anthony asking a question, a student supplying an answer, and Anthony repeating and often rewording this answer, sometimes with reference to specific passages. A few students provided most answers and seemed to more readily volunteer to answer

textually-explicit questions. When students did not answer higher-order questions, Anthony reworded them in more literal terms. Sometimes he answered his own questions.

Anthony's explanations of textbook use

Anthony Pearson had been a teacher for almost twenty years. He explained his teaching by saying, "I want to teach people how words can manipulate them." He was quite vocal in his complaints about what he perceived as academic and social conformity and worked to encourage divergence in his students.

Anthony Pearson reported that his students typically read on a low level, for facts, while he was more concerned with the interpretive process. He suspected that students relied on his interpretations, shared through discussion, of the more implicit themes in the literature they covered. Anthony believed that the content of the state-wide examination was such that his students would be able to pass it at the beginning of the school year. He reported that his use of text and his teacher-made tests depended mostly on his general sense of curriculum categories, on student selection of texts within those categories, and on his interpretations of the pieces of literature within those categories.

Anthony explained that he was adamantly opposed to what he saw as other teachers' dependence on study guides. He was especially disturbed by their use of the same study guides for years on end. However, he confessed that he did not believe that his own approach reached all of his students. He did believe that he significantly influenced a few. He said,

If you can get people excited about literature, I think they'll go on themselves. I don't think that you need to have a worksheet which asks questions like "How many examples of realism can you find in the first paragraph." I don't like that kind of approach. As a result, I probably lose three-quarters of the students and get one quarter of them, so that maybe what the other person does is get people to what I call a general mediocrity and what they would call average, or what they would call prepared to go on to the next class.

He explained that he used any materials available within the school. Anthony and his students selected materials for their literary characteristics and interpretive potential. He said,

What I don't think is important is the content of Chaucer's work. I think that it's important that they're aware of Chaucer and that they've read Chaucer and that they know what his works are like.

Discussion of Anthony's use of the textbook

Anthony explained that he was most concerned with the process of literary interpretation. A few facile students became engaged in his teacher-directed, scholarly discussions relative to possible interpretations of literature. However, for many students, his energetic attempts to facilitate discussion seemed to, instead, intimidate. Looks passed between students suggested that they believed he held the key to correct applica-

tion of literary criticism, and that if they paid attention to his interpretations, they could be successful in his class. Review of these interpretations before tests set implicit messages which confirmed this view. Anthony saw himself as a process-driven teacher, but his implicit curriculum suggested higher-order reading as a skill which could be possessed only by a few while others were left to report on the product of the teacher's interpretation of text.

Lessons Learned

Despite clearly different approaches among their use of tests, similar categories of themes appear in the textbook use of all three of these subject-area teachers. All three use textbooks as a basis for classroom discussion and activity. All make decisions to facilitate textbook use because of their interpretations of curriculum and what is important to them as teachers. All orchestrate text-related activities in ways which send implicit and possibly negative messages about reading relative to particular subject areas. All expect students to gain information to pass tests, and whether or not students can actually do this by reading the text is negated through use of review activities. Anthony, in particular, noted that students could probably pass his tests by listening to class discussions. Despite different professed orientations toward use of textbooks within instructional contexts, students of all three teachers learn to depend on teacher explanations which are shared in lecture-discussions.

Lessons for Chris

Chris will want to consider carefully her goals as a teacher of high school science. Is teaching science a matter of modeling hypothesis-testing processes, or is it a matter of regurgitating scientific facts (Fort, 1990; Sigda, 1983)? Is the reading of science best represented by the acquisition of facts from one source, or by interpreting the opinions of authors in light of observation of the empirical world (Alvermann & Hinchman, in press)? To send other messages about the role about reading in the learning of science, Chris should first recognize that many textbooks are poorly written or unfriendly (see Hubbuch, see pp. 128-136 in this volume; Singer, 1991, see pp. 155-170, this text). Textbooks which are selected should balance needs and interests of students with curriculum requirements (Bailey, see pp. 137-141 in this volume). Because students should be allowed to judge supposed facts across authors and in light of observations, a multiple text approach may be considered (Readence & Dishner, 1986).

Alvermann and Dishner (1986) would advise Chris to plan the use of textbooks in instruction in a manner which integrates reading with other means of discovering subject-area understandings and processes. In her case, use of hands on laboratory activities is most appropriate. Chris' uses of textbooks may also be benefitted by reading-related instructional activities which allow students to learn content from their reading. Such activities may include purpose-setting, conceptually-oriented vocabulary development,

and reading comprehension guidance (Herber, 1978; Readence, Bean, & Baldwin, 1989; Vacca & Vacca, 1989).

Lessons for Mary

Mary seems to be using a number of text-oriented instructional strategies which are recommended by experts, such as use of small group discussions and pre- and post-reading guides. She is a teacher of history who uses trade books and outside speakers to supplement her instruction. However, her text-related instruction emphasizes different kinds of reading at different times, with special emphasis on the factual prior to tests. Tests, too, reflect more of a factual orientation.

Mary will want to consider organizing a consistent set of messages for her students about how to read for her history classes. Such messages may include the importance of reading for facts depending on purpose, but more importantly, it should include discussion about how readers make such decisions, and how such decisions will apply in other kinds of reading students will be asked to do (Vacca, see pp. 255-263, this text). Mary generally treats single text sources as the carriers of information students need to know, so she may be giving students limited messages about history and the nature of historical processes (Sewell, 1988). She may want to consider guided independent study projects which allow her students to engage in document and artifact analyses, comparing results and discussing processes of historical research (Vacca & Vacca, 1989).

Lessons for Anthony

Anthony controls the instructional context of his classroom with the idea that he is teaching students interpretive processes. However, what students perceive are the products of Anthony's own processes. That is, they learn to regurgitate Anthony's thoughts about the higher-level meanings to be found in texts. Further, whole-class lecture and question-answer sessions provide students with limited low-risk opportunity to state opinions relative to their understandings. Anthony may want to implement strategies for use of cooperative small groups in his classroom (Readence & Dishner, 1986; Slavin, 1980).

Anthony does not agree with use of study guides which require straightforward, simplistic answers to low-level questions. However, Anthony may want to consider the use of some sort of guide to structure higher-order reasoning and to assure that his class discussions stay on track and achieve his goals of higher-order understanding. Anticipation guides (Readence, Bean, & Baldwin, 1969; Head & Readence, see pp. 227-233, this text) and reasoning guides (Herber, 1978) would at least help students to stay on task in their discussions. As Herber has suggested, students might eventually be moved toward the construction of similar guides as an expression of their own interpretations of text.

Recommendations Across Subject Areas

All three teachers will want to consider the implicit and explicit messages about reading in their subject-area which they send to students through their organization of classroom activities. Special attention should be paid to the host of messages sent by homework and test review activities. Teachers may wish to consider exploring their own classroom behaviors through use of an observational checklist, like that prepared by Alvermann, Dillon, O'Brien, and Smith (1985). In addition, tests which require regurgitation of facts and products of the teacher's interpretations should be carefully critiqued and other forms of more process-considerate assessment considered (Johnston, 1983).

Attention toward these messages may be facilitated through ongoing dialogue with colleagues about curriculum requirements. These groups will especially want to consider the development of curriculum frameworks which move beyond the notion of text as sole information authority (Alvermann, 1989; Bernhardt, 1987). Teams of teachers can articulate a collective, clear curriculum which is explicit for teachers and their students and which allows varieties of materials and approaches to be used to mediate understandings. The students will then be more likely to develop a sense of reading processes in light of other research and hypothesis-testing processes specific to particular subject areas.

As Alvermann and Moore (in press) explain, it is important to note that literacy-related activity in secondary schools occurs within the larger domain of secondary schooling, and that conditions of teaching affect the practice of teaching. Pressures for accountability, order, and socialization combined with increasingly limited resources are present for all secondary, subject-area teachers. It is important to recognize these constraints as we provide opportunities for continued collaborations of teachers, especially with respect to their decisions about textbook use. Instructional strategies which are appropriate for individuals and which respect particular subject-area perspectives can be developed and adapted. Through this ongoing collaboration, the messages which are sent to secondary school students about the use of reading within and across subject areas may be changed to present a more realistic model of that which is required by post-high school settings.

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