

# HANDBOOK OF COMPLEMENTARY METHODS IN EDUCATION RESEARCH

EDITED BY

Judith L. Green  
*University of California, Santa Barbara*

Gregory Camilli  
*Rutgers, The State University of New Jersey*

Patricia B. Elmore  
*Southern Illinois University, Carbondale*

*with*

Audra Skukauskaitė and Elizabeth Grace  
*University of California, Santa Barbara*

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## Analyzing the Multidimensionality of Texts in Education

Charles Bazerman

*University of California, Santa Barbara*

Written texts pervade the educational process, the educational system, and the policy and political processes that shape education. The scripted speech of a governor translates into legislation that frames school policies, impacting classroom materials and practices. Along the way texts are written and read at every level. Knowing appropriate ways of analyzing the texts students read and write is, of course, necessary to understand the development of students' writing and reading abilities, to assess their skill, to provide them guidance in their production and reception of texts, and to produce materials and curricula for such competence. Even to understand classroom discussion and face-to-face interaction is aided by looking at the texts that go into the organization and educational substance of the classroom activities. But the study of education presents many other reasons for analyzing texts that go far beyond looking at student skills in language arts, such as

- to understand students' interaction with texts and the development of the knowledge and intellect.
- to understand the role texts take within classroom activities and the adult activities for which school is preparing them.
- to understand the implications and practical consequences of instructional guidelines and standards and how they link to classroom practices.
- to understand the ideological underpinnings of a policy movement also requires analysis of texts;
- to understand how teachers and administrators form links with parents.
- to understand how public opinion is formed by journalistic reports and how journalistic representation influences politics, policies and community relations.

Understanding the role, function, and consequences of these varied texts requires different forms of analysis that extend far beyond the most familiar classroom practices of evaluating student productions or interpreting assigned texts. Even these familiar tasks can be aided by bringing less familiar analytic tools to texts students read and write.

The key to understanding the variety of methods of text analysis is to see that texts are parts of actual social relations—written in specific circumstances at specific times and read in specific circumstances at specific times, thereby realizing concrete social transactions. Through inscriptions that travel between places and between time, texts mediate meanings and actions between

people. In their social and psychological lives texts are parts of complex events. On the other hand, the inscribed text, which serves as the mediator of meaning seems itself stripped of its human action and location and seems to carry meaning entirely within its signs. We can learn many things about texts by examining what is inscribed within the texts, but for a fuller understanding it is important to consider how texts move within and affect the social world of human action and human meaning.

### THE NATURAL ATTITUDE OF READERS, WRITERS, AND TEACHERS

Indeed, it is the fundamental problem of writers to create an inscription that will convey the intended meaning so as to carry out the desired action. And it is the fundamental problem of readers to extract a meaning from the text to enable informed action. Many disciplines of text analysis have developed to address problems of inscribing and extracting meaning—and then inspecting and questioning the extracted meaning. When people first think of text analysis it is these they usually think of—foremost literary interpretation, but then prescriptive grammar logic, rhetoric, religious interpretation, and legal interpretation. These methods of text analysis have much to tell us about what gets inscribed and extracted from texts, but they might also be said to reflect the natural attitude of particular kinds of text users. They are the deeply habituated tools that we have learned to use when we write and read, so deeply habituated that they seem the obvious and natural way to look at texts. Deviations from “correct” spelling and grammar jump out at most educated readers, and they learn to monitor correctness of their own writing. As educated readers read, they deploy the interpretive tools they learned in school or church to extract meaning or to resolve confusions about meaning. Again, as writers we monitor our own texts to make sure they convey the meanings we intend, and we try to strengthen the meanings through consideration of such things as logic and metaphor. These stances and their associated tools are so deeply habituated they, seem so self-evidently natural and obvious, that it is hard to see texts from other perspectives—this is what phenomenologists call a “natural attitude.”

Common experiences of writing teachers illustrate how obdurate natural attitudes are, but also how limited. From the perspective of teachers who have spent years marking student writing, incorrect spelling and errors of verb form are intrusive and obvious. But students who haven't had that experience find it difficult to inspect their own writing from a correctness perspective. Their perspective often is deeply tied to their struggle to make their words say something. Those struggles can result into a stubborn commitment to the words they have produced as “what they mean.” Even students who are skilled at grammatical correction exercises on words not their own can find it difficult and “unnatural” to read their own writing solely to look for technical correctness. Frequently in conference when I have tried to get a student to see a small technical issue in a sentence, the student has responded, “but what I was trying to say was...” or “What I mean was...” What is natural to the teacher is unnatural to the student. In this respect it is worth noting that regularization of spelling and grammar did not occur in English until the 18th century as part of the development of print culture centralized in metropolitan centers of power and the associated spread of schooling.

There are, however, other analytical stances that place us apart from the typical stances of the common roles of text producers, users, and teachers. Some examine what appears in the text itself, such as content analysis, linguistic analysis, graphic analysis, analysis of ideology, and analysis of chronotope. Other forms of analysis look at the text in relation to other texts, such as intertextual and genre analyses. And still other analytical methods look at texts in relation to the people and practices engaged in text production, circulation, reception and use—these include

process analysis, analysis of the relation of talk and writing, and analysis of textually mediated activity. Each of these forms of analysis adopts a different stance with respect to the texts to answer different kinds of questions.

### THE TOTAL ANALYTICAL PROCESS

All of these methods of analysis, as with any mode of analysis, help one to pull out particular elements to look at, to reorganize, and to come to conclusions about. But the isolating of the elements is a limited part of the total analytical process. That process begins as you develop a research question that directs you to examine texts and only ends when you have made sense of your analysis and articulated what you have found in a thoughtful, empirically grounded argument. Along the way you will need to do the following:

- Formulate your research question.
- Identify what it is you want to find out from texts.
- Identify and collect a corpus of texts that are appropriate and sufficient for the inquiry.
- Determine which analytical tools will focus your inquiry, provide you the appropriate perspective on the texts, and isolate those particular aspects of texts that will tell you what you need to know.
- Develop and refine the particular analytical categories or focused questions you will use to identify and categorize data within the texts. This you might do by first doing an impressionistic reading of a selection of your corpus and informally noting what seems important or salient. From these first explorations you can then develop and finally fix your analytical categories, coding scheme, or sets of questions to be answered about each text or text segment.
- Systematically go through all the texts in your corpus, following the categories, procedures, or questions you have fixed.
- Examine the results of coding in various formats, from eyeballing your data scoring sheets to developing graphic displays. In addition to traditional charts and graphs, color-coding texts with highlighters according to your analytical categories may help you to notice patterns of relations. Another technique is to collect in a text file all the instances of each data category you have defined. Of course, the kind of data display you look at will depend on your material, the kinds of analysis you are doing, and the categories you have. It is worth doing some creative thinking and experimenting to find useful ways of displaying data that will make patterns most evident.
- Articulate the patterns you are finding and then write up your findings, giving both an overview of the conclusions and detailed elaboration with text examples of each of your observations.
- Before writing the final draft of your paper, return to a naturalistic reading of your text corpus to see whether your preliminary results make sense and whether reading the texts through the perspective of the analytic observations leads to noticing something further or more detailed to pursue.
- Write an argument that brings out the meaning and implications of your analytical findings. Don't let the readers (or yourself) get lost in all the details of your findings so that they miss the large patterns you found and the implications. But also make sure your readers get to see the evidence that supports your conclusions along with a few concrete examples, so they can see exactly what you are talking about.

The presentation in this chapter will focus on pointing out the many different kinds of elements one can pull out for study—the ways of cutting up texts to find something in it that wouldn't otherwise be visible. But always remember this pulling apart is only an early stage—it is the finding patterns, thinking them through, coming to conclusions, and making arguments that give a point to the technical work of analysis. It usually is not enough to just cut up all the parts and show them lying on the table. One must select and put them back together in new and enlightening ways.

This chapter will first look at more familiar kinds of analysis of text, then move to the less usual. It will also move from text-based modes of analysis to modes of analysis that locate texts within the human situations of production, circulation, and use. Because there are so many varieties of text analysis available, this chapter can do little more than introduce a number of them, suggest some of the potential uses of each, and identify some useful resources for in-depth treatment. The reader is referred to Bazerman and Prior (2004) for more complete elaboration of a number of the analytical methods. Two other general book-length resources that consider a variety of analytical approaches to text are Barton and Stygall (2002) and Stillar (1998).

### ANALYSIS FOR PRODUCING AND EVALUATING CORRECTNESS

The most familiar mode of textual analysis associated with schooling, for good and ill, is the use of prescriptive tools to isolate and to measure the correctness of textual form at the level of word (spelling and morphology), sentence (syntax), and larger organizational structures. Students as well are frequently taught these tools so as to support self-editing, correction, and initial production of formally correct writing. Students are taught phonetic correspondences, typical patterns of spelling, spelling rules, and word analysis skills. For grammatical forms students are typically taught to analyze parts of speech and identify their relations for agreement. Students are also usually taught some form of syntactic analysis to form and punctuate proper sentences, particularly with more complex syntaxes. Standard handbooks (e.g. Warriner, 1997) provide a vocabulary and procedures for analyzing sentence components for correctness.

For research purposes, analyzing student productions for their correctness based on prescriptive grammars can tell you how well students in various age, grade, and demographic categories meet formal expectations and how the degree of adherence might change over time or with particular interventions. While the ability to produce grammatical sentences is not the same as the ability to express oneself well, carry out complex thinking, or communicate effectively, familiarity and comfort with conventions may facilitate production, and variances from the norm will stigmatize the writers as less educated. Nonetheless, Connors and Lunsford (1988) have found that some errors are far more stigmatizing than others; and some formal incorrectness goes unnoticed. Also Williams (1981) has found that the most stigmatizing errors are those that are stereotypically associated with ethnicity. Most researchers into writing, moreover, view such analysis for formal correctness as of limited use in that it does not tell you much about the student's processes of writing, the full set of choices embodied in the writing, and the ability of those texts to communicate effectively within the situation. Using such analysis of correctness to measure student accomplishment reinforces the idea that writing is only about correctness. Further for second language and second dialect speakers, such models of correctness overemphasize a limited range of performance and editing skills, which may trail the development of other skills. Nonetheless, such measures of degree of correctness remain default measures of student competence and improvement if no more subtle model of writing informs the inquiry.

While forms of organization are not nearly so regularized as spelling and grammar, students are frequently taught to analyze paragraphs for structures like topic sentence and supporting sentences,

as well as several classic paragraph patterns, such as narrative and comparison. Some models of the five-paragraph essay in fact provide detailed modes of characterizing the function and form of each sentence. Again while the pedagogical value and quality of writing that results from such modes of analysis for production and correction may be controversial, such procedures do provide a familiar analytical vocabulary and modes of analytical inspection for organization beyond the sentence. These have been used for assessment, pedagogy, and research.

#### OTHER MODES OF ASSESSMENT AND ANALYTICAL LIMITATIONS

In the last three decades another common measure for the evaluation of student writing has emerged in the form of holistic grading on a four- or six-point scale identified by an ideal type grading rubric that identifies a variety of features of potential responses to the assigned prompt. Such holistic, ideal type rubric based assessment is now the standard for most state and national assessments in K-12 schooling, the writing component of college entrance and placement exams, and exit exams in university writing programs. As a consequence much of the institutional data on student performance is gathered through such exams and encoded through these scores.

Insofar as the rubrics provide a vocabulary for characterizing features of the exams, and insofar as scores encode perceived adherence to these ideal types, they do characterize and differentiate levels of performance, and thus may be seen as analytic of student skills. Rubrics can provide dimensions of writing tasks to be discussed and taught with students and means by which students may inspect and analyze their own writing and the writing of others. Thus they may provide the basis for some analytical examination of writing goals and accomplishments. However, when essays are assessed in this model, they are deliberately read holistically against the multidimensional ideal-type description. The reported score identifies no particular performance on any particular dimension, and thus the particulars of any text so scored are not analyzed. For this reason they tell you little for research purposes about particular characteristics of student writing; they can, however, provide comparative before-and-after measures of improvement, particularly if an intervention is keyed to the criteria in the rubrics.

Even as a measure of overall student performance, the scores need to be seen in reference to the tasks assigned and completed under controlled exam conditions. Student performance on such exams may well be influenced by the familiarity with the particular kinds of prompts and rubrics that guide their performance and assessment. Indeed where such assessments are significant accountability measures, they have a large washback effect on what and how students are taught (Hillocks, 2002), both in the genres and conditions students are asked to write in and in the terms in which they come to understand and analyze their own writing. The relation between scores on such exams and performance on a wide range of other kinds of nonexam writings has not been established. Further, such exams do not indicate what students can accomplish when writing and revising with multiple drafts over an extended period. While such holistic assessments provide analytics for teaching, learning, and student monitoring of work, they also themselves might be analyzed to consider the kind of testing and learning regimes they set up in terms of content, activity, and ideology. That is, they can be examined in terms of what they ask for, the targets they set for learning, and the assumptions behind them.

For assessment purposes, a popular alternative to the holistically graded, rubric-referenced timed essay is the portfolio. However, in itself, the portfolio is only a way of aggregating samples from various moments and situations in the school career. The portfolio carries with it no particular method for its assessment and analysis. Portfolios when used on an individual basis provide the basis for individualized comments that might invoke any mode of reflective judgment the

teacher or student might apply on an ad hoc, eclectic, or more systematic basis. When portfolios are used for larger scale assessments they are again typically subjected to holistic rubric-based scoring for the separate specified pieces included or for the entire ensemble. Insofar as a development or reflective learning model informs the consequential assessment of portfolios, students learn to perform to the explicit or implicit criteria, writing to the expectations rather than in spontaneous acts of self-analysis (Scott, forthcoming). Pat Belanoff and Marcia Dixon's *Portfolios: Process and Product* (1991) provides a good overview of the issues.

Another informal kind of analysis done in teaching is through commenting on student papers. This is done through a variety of techniques. Correction according to formal criteria is a common practice, as is the justification of evaluation according to the kinds of criteria that appear in rubrics. Comments may attempt to elicit further elaboration from students or they may attempt to foster a dialogue. Comments may rely on an organized analytic system laid out in a handbook or by the instructor, or they may be eclectic and ad hoc. In any event they do serve to make elements or moments in the text salient to the students for revision and correction purposes. A number of studies have attempted to understand the variety and purposes and effects of commenting practices (e.g., see Straub, 2000; Zak & Weaver, 1998).

While all these forms of classroom and institutional assessment are primarily for practical purposes of instruction and evaluation, they sometimes find their way into research on student writing. Sometimes data on essays evaluated in these forms is institutionally at hand and institutionally consequential, and sometimes they are adopted to measure achievement within a study. Therefore it is worth being aware of their uses and limitations. Useful introductions to assessment and grading methods are Willa Wollcott's *An Overview of Writing Assessment* (1998) and Charles Cooper and Lee O'Dell's *Evaluating Writing* (1999).

### ANALYSING MEANING: LITERARY ANALYSIS

Another familiar set of text analytic methods concerns the interpretation of reading, particularly reading of literary texts.<sup>1</sup> Most of the practices of identifying meaning become deeply tacit in skilled readers, so we usually do not consciously and systematically pursue any articulated set of analytic procedures. Rather we respond eclectically in extracting meanings, focusing on whatever we find difficult or problematic, using whatever we have available at hand. Because literary texts, however, are distinctive, presenting particular challenges to understanding, students at the secondary and university levels are explicitly taught to analyze them.

Practices of literary analysis are often spelled out in introductory university textbooks and are elaborated in more advanced literary theory and criticism books. In the analysis of fiction and drama the most common elements considered for analysis are plot, character, theme, point of view, and setting. In poetry typically examined are metaphor, simile, and other figurative language along with prosody, form, theme, and overall explication of meaning. In each of these cases, the targeted element is pulled out for special inspection and discussion of that element's contribution to the overall meaning. A good introduction to traditional methods of literary analysis is Edgar Roberts' *Writing Themes about Literature* (1988).

More recent literary criticism has also focused on the ideas and cultural assumptions that underlie the meanings inscribed in the texts. Each analytical mode typically has a set of theoretically

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<sup>1</sup>As scriptural and legal text analytic methods have a much smaller role in schooling we will not discuss them here, although understanding the interpretive practices of the law may be of use in understanding legislation, judicial proceedings and precedents, and legal processes that affect schools.

grounded concerns that focus attention on a couple of key analytical categories. Gender analysis, for example, might focus on gender roles, gender-associated imagery, gender-related struggles of characters, and so on. Cultural criticism, as another example, looks for clues to the underlying assumptions and patterns of culture inscribed in the text, particularly as they systematically privilege the interests of some group of people and devalue the interests and values of other groups. A good overview of different forms of contemporary literary analysis is Guerin, Labor, Morgan, Reesman, & Willingham's *A Handbook of Critical Approaches to Literature* (1999).

While these forms of analysis have been most thoroughly developed within literary studies they can and have been applied to nonfictional texts, including those from education. Newspaper accounts of schooling can be examined for the typical narratives they tell about students, teachers, and institutions. Political talk about schooling can be examined for the metaphors used to describe the educational process. School materials may also be examined for the cultural assumptions they carry in their stories. Also of interest to schooling is the role of various literary devices within the curricular and disciplinary areas, such as the use of metaphor in science or of narrative in history (e.g., see Baake, 2003; Eubanks, 2000; Fahnestock, 1999).

#### ANALYZING THE KINDS OF THINGS TEXTS REPRESENT: CONTENT ANALYSIS

While interpretive modes of analysis attempt to increase the meaning of texts, content analysis treats the meaning as unproblematic and directly revealed through the words. Content analysis provides a quantitative view of what a text talks about. In its most simple form content analysis identifies the different people, things, or actions a text reports and counts the instances of each. Thus a content analysis of a set of standards in language arts might examine how many times particular topics or skills might be mentioned. Once the terms of interest are identified, a simple word search available in most word processing programs will aid the identification and counting. One can count all terms in the text, eliminate common and nonreferential and text structure words, or just select a limited list of terms salient for the current study. Once the selection of terms is made then the counting may proceed mechanically, using complete terms or word kernels (e.g., *compreh—*, to capture both *comprehend* and *comprehension*).

Words can also be aggregated into conceptual clusters—so that one could count in the science standards terms that identify factual knowledge versus terms that identify abilities students will need to develop. This might be done by categorizing the verbs in each standard into verbs of doing versus verbs of skilled action. However, more abstract or conceptual categories (in contrast to word-based categories) will require hand coding of the key terms, rather than electronic word searches. Similarly if particular words (e.g., the verb in each standard that identifies what a student should know, understand, or be able to do) are selected for analysis, manual identification will again have to precede mechanical counting and sorting. Finally it should be noted that isolating particular terms for inspection or establishing conceptual categories or other clustering terms should be based on familiarity with the texts. One needs to develop aggregating categories based on the actual material in the texts rather than a preconceived model of what might be relevant or salient.

Another way to identify items for content analysis is to characterize phrases or sections of the text presenting claims, arguments, tasks, orientation, kinds of evidence and so on. For example, Huckin (2002) examined newspaper coverage of the homeless by making a catalogue of all the claims made concerning the homeless in a large corpus of articles, and then identifying which of these available claims were mobilized in any particular incident or story. In addition to



Another similar but different sophisticated set of linguistic tools to characterize similarities and differences among texts tied to a well-defined set of analytic procedures is provided by Douglas Biber in *Variation Across Speech and Writing* (1991). Richard Haswell (2000) in "Documenting Improvement in College Writing" has as well put together a complex package of linguistic tools for evaluating student growth in writing.

One additional linguistic topic that may be of special interest to analyzing the developing writing of students is the use of code shifting. Code shifting is most evident when bilingual students switch from one language to another. In doing so they draw on the meaning resources of both languages. Even more they signal identities and relationships by the language choice. Code shifting more subtly can be noticed when students shift from one dialect to another, from one level of formality to another, or from one specialized vocabulary and style of communication associated with a profession or a subculture into another vocabulary and style. While much of the analysis of code shifting has been concerned with spoken language, Marcia Buell, in her chapter in Bazerman and Prior, shows how the concept can be applied to written texts.

### ANALYZING TEXTS IN RELATION TO OTHER TEXTS

Each text exists in a sea of other texts. Each text uses words, ideas, and phrases that draw on other texts and responds to a situation created in part by previous texts, whether they were the teacher's assignment sheet or conflicting reports on a controversial question of educational policy. Sometimes these connections to other texts are implicit, but often texts explicitly refer to other texts, through mentioning an earlier text, quoting from it, arguing against it, footnoting it. The analysis of intertextuality identifies those points of connections with other texts and considers how the new text uses them, responds to them, positions itself in relation to them, or draws on them as resources to make a new argument. In understanding student's writing, for example, it may be useful to understand what they are drawing on and how they transform these materials. Teaching students to make deeper and more thoughtful use of their sources can be part of an explicit instruction aimed at intellectual growth and writing development. On the bureaucratic side, intertextual analysis can reveal how teachers' and administrators' texts draw on and respond to directives and resources provided by the state, scholars, the community, and other practitioners. Finally to understand policy controversies and initiatives, it helps to see the ideas and sources people draw on, how they advance their own positions in relation to other positions or otherwise act within a field of claims, counterclaims, research, evidence, ideas, and political commitments.

Intertextual analysis first considers the levels of explicitness at which a text invokes another text and the purposes the prior texts serve. At one level the text may draw on prior texts as a source of meanings to be used at face value. This occurs whenever one text takes statements from another source as authoritative and then repeats that authoritative information or statement for the purposes of the new text. At another level a text may draw explicit social dramas of prior texts engaged in discussion. For example, when a newspaper story quotes opposing views of senators, teachers' unions, community activist groups, and reports from think tanks concerning a current controversy over school funding, they portray an intertextual social drama. The newspaper report is shaping a story of opponents locked in political struggle.

Texts may also explicitly use other statements as background, support, and contrast. Whenever a student cites figures from an encyclopedia, uses newspaper reports to confirm events, or uses quotations from a work of literature to support an analysis, he or she is using sources in this way. Less explicitly the text may rely on beliefs, issues, ideas, and statements generally circulated and likely familiar to the readers, whether they would attribute the material

to a specific source or would just understand as common knowledge. By using implicitly recognizable kinds of language, phrasing, and genres, every text evokes social worlds where such language and language forms are used, usually to identify that text as part of those worlds. Just by using language and language forms, a text relies on the available resources of language without calling particular attention to the intertext. Every text, all the time, relies on the available language of the period and is part of the cultural world of the times.

These levels of intertextuality can be recognized through techniques that represent the words and utterances of others. Through these different techniques the author can give either more direct voice and recognition to the original source or can impose control over the original material and filter it through the author's perceptions and interpretations. Most explicit is direct quotation, identified by quotation marks, block indentation, italics, or other typographic marking. While the words may be entirely those of the original author, it is important to remember that the second author, in quoting, has control over which words will be quoted, the points at which the quote will be snipped, and the context it will appear in. Indirect quotation usually specifies a source and then attempts to reproduce the meaning of the original but in words that reflect the author's understanding, interpretation, or spin on the original. Indirect quotation filters the meaning through the second author's words and attitude and allows the meanings to be more thoroughly infused with the second writer's purpose.

Mentioning a document or author relies on the reader's familiarity with the original source and what it says. No details of meaning are specified, so the second writer has even greater opportunity to imply what he or she wants about the original or to rely on general beliefs about the original without having to substantiate them, as the news reporters do with respect to proponents and critics. In all of these first three techniques, which are somewhat explicit, the author can comment on or otherwise evaluate the material being presented from another source.

Least explicit is using phrasing associated with specific people or groups of people, terminology recognizable from particular documents, language echoing certain ways of communicating, or forms suggesting types of documents. Using these implicit forms of intertextuality leaves less opportunity for direct comment or evaluation, which may be presented only through the stance or attitude expressed toward the language that evokes a source. Usually the most explicit purposes and formal expressions of intertextuality are most easily recognizable and therefore most easily analyzable.

It may also be worthy considering the kinds of materials brought in intertextually and from what kind of distance. Curriculum guidelines would be expected to draw on and echo the language of state standards, as they are hierarchically related within the same world of educational policy, and in turn we might expect textbooks and lesson plans to bear strong relationship to both curricular guidelines and state standards. It would be useful to point out and specify the exact degree and patterns of connection. Less obvious but equally revealing might be finding the words of either an educational philosopher or a religious text being echoed in the political debates surrounding the passage of a new educational program.

#### ANALYZING GRAPHIC DESIGN

A text conveys more than just the words. Texts often include illustrations, examples, displays of data, charts, sketches and other forms of visual display. Even the simple design of word layout on a page or screen also conveys meaning. With new electronic tools of page design and multimedia Internet publication, graphic elements are increasing in number and sophistication. These graphic elements can be exceedingly important and analyzing them is a necessary part of

understanding how texts convey meaning. For example, in analyzing how students interact with textbooks it may be useful to examine how design elements influence student interaction. In examining the campaign of an interest group attempting to influence policy, it may be useful to examine the design of their public reports and position papers to see how they make their work seem scientific or administratively professional—or contrarily, how they give themselves the appearance of a grass roots parents' movement. The study of early writing development calls a multimedia graphic approach. Young children often combine pictures, line drawings, colors, designs, and gestures with their words. They use everything they have at hand to try to convey meaning on paper, and only gradually come to focus their attention on word choice, spelling, grammar, and other skills we more narrowly consider writing.

Even before one considers what is on the page one may first look at the page or screen itself. If it is on paper, is it on letter sized office paper, or slick magazine paper, or oversize newsprint sheets? Is it a single sheet or is bound in hardback book form or stapled in a small packet? Or is a display designed to fit into a single screen, or is it a long, scroll down document?

On the page or screen one may first observe any overt illustration or figure and how they relate to or add to the main text. Each graphic element embodies some content and uses certain style and image to convey that content. Thus photographs may convey a picture of active students in a classroom, while placing at the center a teacher sharing a book with a single child. This photo can be presented in warm friendly colors or bright vibrant colors, or even faded sepia tones to suggest nostalgia for an older time. One may then note what regular design features there are, such as colored headings. Web sites often use color and background designs in many different ways to distinguish parts of a page and to set the tone or a background image. Also parts of the design are choices of typeface and font sizes as well as the means of emphasizing particular words and phrases.

Computer presentation and Internet communication also open possibilities of embedded video, sounds, animations, databases, calculations, response boxes, choice buttons, and other interactive devices as elements in a page. But then one should also consider how all these elements are put in relation to each other through the page layout. Layout can serve to emphasize some elements, to establish a relationship among the parts, and even to suggest the kind of document you are reading (does the page look like it is from a professional journal or a school worksheet?) Further one should consider how larger elements of a text are visually drawn together. In the print medium, how are pages bound together into a pamphlet or book, how are they visually separated into sections or chapters, how is the organization displayed through contents pages, page headers, indexes, or section numbers? In electronic hypertext are there other options for connections, such as hyperlinks, sitemaps, and repeating design features?

As with any form of analysis, once one pulls apart these various pieces to observe, then one must put them together around one's analytical findings to come to some conclusions related to the question that first got one to look at these elements.

## RHETORICAL ANALYSIS

All the elements of the texts we have pointed to so far—words, linguistic structures, standard forms, graphics and design, references to other texts—are all in texts so that the text can have affect others. Rhetorical analysis aims at showing how texts are designed to have an effect on readers. Rhetoric traditionally has been most concerned with the kind of effect or influence called persuasion—that is, getting the reader audience to believe or act as you would like them to. But as texts may have many kinds of effects or influences that are not obviously just persuasion,

it may help to consider how any text aims to influence or effect a reader in any way, and not just persuade.

Fundamental to rhetoric are the concepts *rhetorical situation* and *rhetorical moment*. Any utterance appears within a situation and can be stood as a response to that situation. Further, that situation evolves, such that one must pay attention to the particular moment when any statement appears. What were the concerns and knowledge of the audience at that moment? What forces were at play that the text attempted to intervene in? Within the situation and moment, each text also has a rhetorical purpose—an underlying aim that it is attempting to carry out. For example, just before a school bond election, a school board may release a report projecting the overcrowding in the district that would occur in the next 10 years if there were no new buildings. The purpose is clear—to provide voters information that would make them want to vote for the bond. And the timing is crucial—after the election the information could not influence votes, and even if it came out late in the process, opinions may have evolved too far for many votes to be influenced. On the other hand, if the report is years old at the time of the election people may no longer remember it or may consider it out of date.

Because rhetoric particularly spoke to moments of controversy or conflicting interests, the concept of stasis helps to sort out exactly what is at issue. Stasis is the place that a question holds still for both sides to address in some useful conflict. For example, one group of people may hold that children should repeat a grade if they do not meet the testing standards because unless you enforce standards they lose their meaning. Another group, however, may argue that children who repeat grades have worse outcomes because they are discouraged, lose contact with their friends, and find the repeated material boring. While these two sides disagree on the general policy of repeating grades, they have no specific point which they can discuss the issue fruitfully, as they each have different kinds of reasons for their support. Only if they find a common question that they can resolve through reason and evidence, such as whether a policy of grade retention over the long run will increase the overall achievement for the system, can they make headway in the discussion. The strategic identification of the stasis or point at issue can change the entire character of a disagreement in favor of one side or the other. Is the issue test scores or student motivation or community values? Depending where the question lands one side or another may have a stronger case. The concept of stasis is very useful not only for controversies but also in examining class discussions, to see how discussions gain focus, and to see how that focus provides opportunities to formulate ideas and to practice drawing on particular kinds of evidence.

Classical rhetoric also suggests most arguments can be made in three ways: *logos*, *pathos*, or *ethos*. Logical arguments focus on the substance of the topic through description, reason, and evidence. Pathetic arguments appeal to the audience's emotions, or *pathos*. And ethical arguments increase trust and believability of the speaker. Given modern perspectives it may seem that logical arguments are far more legitimate than ethical or pathetic arguments, but that is not always the case. Very often we want to move people to action by appealing to their values and commitments. Many of the public discussions of schooling have very much to do with people's feelings about the young and the values they would like to see upheld in the community. Often, as well, the words of people in powerful positions carry more weight because of the institutional power they have to carry out decisions and the large impact of their decisions, as well as because of the resources we assume they have to make wise decisions. So *ethos* and *pathos* enter into most public discussions of schools as well as *logos*. Even in the classroom, while we want students to learn to reason and gain knowledge that will help them to think logically, we also want them to be emotionally engaged in their learning and we also want them to develop judgment about which sources and people can be relied on. Thus even in examining classroom materials the analysis of *logos*, *pathos*, and *ethos* may be of interest.

Rhetoric is a large field with a long history of principles and analysis. Crowley and Hawhee's *Ancient Rhetorics for Contemporary Students* (1998) provides a good introduction to rhetorical concepts, while Sonia Foss' *Rhetorical Criticism* (1989) and Roderick Hart's *Modern Rhetorical Criticism* (1990) provide good introductions to using rhetoric within critical analysis.

### ANALYZING TEXTS IN RELATION TO TALK

All the types of text analysis presented to this point have focused on what you can find on the page. But texts do not come into being and exist in nature apart from human contact. They emerge because humans write and distribute them, and they convey meaning only when people read them. While texts may seem to lie flat on a desktop apart from any humans, it is only in the interactions with humans that they take on and transmit meaning. Interaction does not stop when a group stops talking and starts reading, but attention does turn from the immediate people in the room to bring in the distant voices of authors.

Sometimes writing processes are carried out by individuals alone with paper and pen or a computer, listening only to their own silent thoughts in dialogue with the noiseless letters in front of them. Sometimes these processes are collaborative with lots of talk, background email chatter, or other communications that reveal planning and problem solving. Similarly texts are read sometimes by individuals quietly connecting the text to their thoughts, while at other times groups work out the meaning of texts in lively conversation, as in a classroom discussion or a meeting of a team of teachers trying to interpret and implement a curriculum plan. Sometimes the texts are read for their own meaning, but sometimes they are read as part of an encompassing activity, as when a group of students works through a lab manual in the process of trying to carry out the laboratory according to the specified procedures. Sometimes texts come up as part of discussions where they are brought in as a resource or as something posing a controversy or problem.

All these aspects of texts in their relation to talk and activity can be useful to analyze. The techniques one can use for the investigations include talk-aloud protocols, focused interviews, ethnographic observation and other techniques described in other chapters in this book. The additional challenge, however, is to find ways to place the reading and writing activity side by side with the more immediate talk and embodied action. This will require ways of showing how the talk and text relate sequentially and how attention turns from talk and embodied activity to text and back again in order to show the interaction of the two.

### ANALYZING THE TYPE OF TEXT AND ITS ORGANIZATION

The interaction between people at a distance that occurs through texts can be understood through analyzing genre. Genres, or recognizable kinds of texts, embody typified actions. Recognizing a genre tells you the kind of people you are communicating with, what your relationship to them is, what the goals or impulses of the document initiator are, and what kind of action is proposed. Certain forms are sent home with children on the first day of every school year to be filled in and returned by the parents. People who understand these forms can immediately see that some are from the state to gain required information, other forms are applications to participate in federal programs such as subsidized meals, and others invite the parents to join the PTA or volunteer to help out in the schools. Knowledgeable readers recognize that each is a form that is to be filled out, is motivated by different concerns, comes from a different agency, places the parents in different positions of obligation or choice to return, and requests appropriately different kinds of

information. A question about family income, for example, would be expected on the federal application for supported meals, but would be out of place on the PTA membership form. In filling out each form the parent also engages in different kinds of interactions with the different agencies. A middle-class parent familiar with all these genres knows all this, but a recent immigrant parent who has not engaged much with American institutions might not understand at all well the systems and genres that connect them with the systems. And they may even be afraid that any information they provide might go directly to immigration authorities and raise questions about their visa status (Andre-Bechely & Griffith, 2002). Thus knowledge of genres is knowledge about a way of life and how to participate in that way of life.

Some approaches to genre analysis are concerned primarily with textual form. Such approaches might appropriately have been considered as part of linguistic analysis, as it is by Halliday (1998). Linguistic clues certainly help us recognize genres—the memo heading presents an obvious example. Another major variety of genre analysis stands midway between the linguistic and rhetorical modes of analysis, as it emphasizes the recurring formal patterns of text as recurring forms of argument. John Swales (1990) developed a useful model for the structure of introductions to scientific articles, which he calls the Create A Research Space model. Thus typically, scientific articles open by defining a research area, then through a review of literature summarize what we know about this problem, and lead to some identification of something still unknown or otherwise troublesome. Finally the introduction indicates that this article will address that gap or problem in knowledge. Swales and his students have applied this model of argumentative moves to many kinds of texts, in and out of education (Bhatia, 1993; Swales 1990).

Both the linguistic and the linguistic rhetorical models of genre imply that there is an underlying social organization and activity that gives rise to these regularities, but the analysis focuses more on the formal realization of these activities. A more fundamental kind of genre analysis begins with the idea of genre as typified social action within typified social situations (Miller, 1984). Students, for example, come to learn in school that periodically teachers set them assignments, which they must complete by a set time, and these assignments are to be submitted in the manner and format they have become familiar within school and that particular class. Moreover, the teacher instructions set constraints on how the student is to respond. Further, students soon learn there are big differences among what is expected in a math problem set, a history report, and an English essay. Students may get confused and even upset, for example, if for math class they are asked to write an essay on their earliest memories about numbers or about how algebraic unknowns enter into their daily experiences. They learn the genres, when various genres are called for, how they may appropriately respond, what further kinds of response they can expect from the teacher, and how that response may be turned into grades that will be entered into their record. If they don't know all this, they pay a price.

The example of classroom genres points out several important aspects of genres. First, genres systematically coordinate the work of different people only if people share reasonably similar understandings of that genre. An international exchange student visiting an American high school for a year at first may not understand the practices of handing in work according to deadlines and may not even understand a teacher's request as an assignment, let alone what form the answer might take. The student's submission may not at all be what the teacher thought she was asking for. Only as the international student learns the expectations of American schools, perhaps by being quietly clued in by classmates, does the work begin to match everyone else's expectations of the appropriate response.

Second, genres though initiated and understood within situations take on certain formal characteristics that help people recognize the document as appropriate and substantively fulfilling the expectations of the situation. The response to a math problem set typically must include the

final answer to each of the problems (often identified by being circled, underlined, or placed in a special position) accompanied by a certain level of detailed calculations or reasoning steps. Further the responses to the questions must be numbered matching the numbers on the assignment sheet and must be presented in the order on the assignment sheet. Essays on high school history exams may have to conform to a five-paragraph essay model, with an introduction presenting three main points, each of the middle three paragraphs elaborating each of the points and presenting further details, and a concluding paragraph. Variation from the expected pattern may make it harder for the grader to recognize the answer as addressing the question. So students and others do need to learn the formal expectations and typical forms used to fulfill the expectations.

Third, genres are matched with typical kinds of content. On the history exam essay, historical actors will be presented as taking part in historical actions, revealing either larger historical forces or individual actions of consequence. In the math problem set there will be numbers and variables, related to each other through equations, matrices, calculations, and other mathematical devices. Then these numbers and variables will be manipulated through appropriate procedures to determine an answer. The English essay, depending on the specific type requested might include personal experiences involving the writer, people and events familiar to the writer, emotional responses to the event, and perhaps some general theme or lesson that comes out of the experience. This typical content, set within the typical domains, times and places of each genre is what Bakhtin calls the chronotope, or the time-space (Bakhtin, 1981). The idea of a chronotope holds much potential in studying what students are expected to produce in various courses. This can in part be investigated simply by noticing graders' positive comments on in the margin indicating this is an exemplary part of the expected response and what graders note as not appropriate or needed. A study of chronotopes can also help us understand what counts as knowledge within various fields and how that knowledge is presented.

Fourth, genres have typical patterns of intertextuality with other proximate and distant documents. Again the history exam will require students to be familiar with and use information from the assigned readings, probably a textbook. In a college course, however, extending beyond the required reading to include recommended readings might be well rewarded. In a high school class it may be enough for students to summarize source material, but in an advanced college course some kind of critical distance and evaluative perspective may be expected. An English essay on a piece of literature would likely require regular quotation from the text being commented on along with some fresh interpretation, with direct linkage to the content of the literary text.

Fifth, genres are parts of activity systems. That is, genres don't appear just by themselves. They emerge as part of systematic activities, in anticipatable sequences with other genres. That activity system is often related to others, so that each production of generic texts has relationships with events that extend beyond the immediate reading and writing. The activity system of a college classroom in one sense begins at the term's start with the instructor's distributing a syllabus to the students in a class. That syllabus identifies books to be read by certain dates, written assignments to be handed in again on specified dates, lectures and discussions to occur in class on particular days, exams to be written. Each of these may be further elaborated by assignment sheets, lecture outlines, or other teacher-made documents throughout the term. In response to each assignment sheet, students will have to write an assignment, which will then be read by the professor or grader, who will then assign a grade and make comments, which will be returned to the students. The assigned grade will then be recorded in a grade book, and all the grades of the assignments and exams will at the end of the term be summed and averaged into a grade. That system of classroom activity is linked on one side to the university's system of registration and record keeping. On another side it is linked with a department's system for developing and offering courses along with creating major requirements. On a third side it is linked with disciplinary

systems of knowledge production, publishing, and materials distribution that stands behind the knowledge taught and the specific availability of texts to be assigned. Each of these other systems has its own genres that stand in relation to each other. Textbook production, for example, involves corporate plans, the solicitation of book proposals, the proposals themselves, reviews of the proposals, correspondence, contracts, manuscripts, edited manuscripts, book design and production documentation, marketing plans and advertising materials, and records for sales, orders, shipping, and accounting.

Genre analysis can help you to understand the character, function, content, and form of each kind of text you may come across in education, but it can also help you to understand the kinds of situations that give rise to such texts and how they are used. It can tell you how the use of such texts enacts roles and relationships among people and carries out interactions among them, tying them into larger systems of activity. And finally it can help you see how large systems of activity are enacted as well as the specific contents of thought and meaning that are shared at every juncture of the complex activity.

### CONCLUSION

While educational research has traditionally seen writing as a skill taught in school and seen institutional texts as evidence of beliefs, attitude, institutional organization, or policy, it has not seen writing as at the heart of educational activity and interaction. If, however, one comes to look at writing in the multiple dimensions suggested by the forms of analysis sketched out here, one will come to see texts pervasive and formative in all educational activity. The classroom is a set of text-saturated activities. Students spend the day reading and writing. Students learn to master the skills of reading and writing that they then use to learn contents and skills presented in texts, which distill knowledge from other texts. Students use texts to write their assignments and to prepare exams. Students talk about ideas and information from texts. They and the teachers use texts as resources to design and carry out activities. School themselves are held together by texts of documentation, records, directives, coordination. The organization, coordination, and dissemination of the curriculum are matters of texts, as well as the consequent production of materials and lessons to animate that curriculum. The world of educational policy, politics, and research is saturated with texts laying out positions and powers, interests and debates. By gaining familiarity with the many methods of text analysis one will gain the tools to pick apart how this great dynamic process of education lives through the circulation of texts.

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