Tutoring via Telecommunications

Michael Graves &
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Series Editor

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Preface

"Tutoring Via Telecommunications" examines the principle that teaching someone else is one of the best ways to enhance one's own learning. Michael Graves and Ann Hill Duin studied 11 University of Minnesota undergraduates who participated in a "Mentoring Across the Curriculum" program with Totino-Grace High School in Fridley, Minnesota. The goal of the cross-curricular project was to improve the writing of University students and Totino-Grace students by having the University students mentor the Totino-Grace students in writing.

Given the proliferation of electronic media for communicating across disciplines and from multiple sites, Graves and Duin believe that projects like this one may become widespread in the future, in particular as institutions consider the merits of "distance learning." Their findings are provocative—while the project was very successful at providing constructive feedback to high school students on their writing, and at improving the tutors' skills at responding to others' writing, the actual writing skills of the tutors themselves did not improve markedly. Clearly, tutoring via telecommunications is a promising, yet challenging concept that should be explored further.

Projects such as this one, together with ongoing Center projects, should result in improved undergraduate writing, the Center's primary goal. Along with colloquia, conferences, publications, and other outreach activities, the Center annually funds research projects by University of Minnesota faculty who study any of the following topics:

• characteristics of writing across the University's curriculum;

• status reports on students' writing ability and the University;

• the connections between writing and learning in all fields;

• the characteristics of writing beyond the academy;

• the effects of ethnicity, race, class, and gender on writing; and

• curricular reform through writing-intensive instruction.

We are pleased to present this technical report as part of the ongoing discussions about Writing Across the Curriculum and about technological support for writing instruction. One of the goals of all Center publications is to encourage conversations about writing; we invite you to contact the Center about this publication or other Center publications and activities.

Lillian Bridwell-Bowles, Series Editor
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Tutoring via Telecommunications

Recent improvements in writing technologies (most notably, computer networks) make it possible for students to communicate and collaborate with audiences that are not immediately present (Duin & Hansen, in press; Hartman et al., 1991). However, researchers studying the effects of these technologies on students' writing and collaborative processes have found mixed results (Bump, 1990; Sirc & Reynolds, 1990), and theorists have posited that unless we consider carefully the design and implementation of these networks, they can actually work to sustain existing educational, social, and political systems rather than offer students new contexts for acquiring literacy (Cooper & Selfe, 1990).

One approach to assisting students in improving their writing and acquiring functional literacy skills is cross-age tutoring, an approach which has the potential to improve the skills of both the tutors and the tutees. Through the use of telecommunications, trained tutors—in the present case, college students—can help younger students—in the present case, senior high school students—write, interpret, and negotiate texts, thus situating learning in a context that promotes the active participation of both the tutor and the student (Brown, Collins, & Duguid, 1989; Cohen & Riel, 1989).

In planning the project, we relied on these considerations and on two substantial bodies of knowledge. We relied on knowledge about tutoring and the potential of university students to act as tutors, and we relied on knowledge about writing and writing instruction.

Enlisting the aid of college students as tutors offers a number of advantages. To begin, enlisting the aid of college students allows us to employ tutors who are mature,

knowledgeable, experienced, and better trained than the students with whom they are working. Additionally, enlisting the aid of college students is logistically and economically feasible, and a very powerful way of leveraging the human resources we have available. Common sense, the success of tutoring programs at such universities as Oxford and Cambridge, and a substantial and robust body of research indicate that a more knowledgeable individual working with a single student or a very small group of students can provide very effective instruction (Greenwood, Carta, & Hall, 1988). In fact, research indicates that both the students tutored and those who serve as tutors gain a better understanding of the subject matter covered and more positive attitudes toward the subject matter (Cohen, Kulik, & Kulik, 1982). As one group of experts (McKeachie et al., 1986) put it, although there is no one best way of teaching, if one had to pick a best way it would center on "students teaching other students." "There is," McKeachie and his colleagues continue, "a wealth of evidence that students teaching other students is extremely effective over a wide range of content, goals, students, and personalities." Moreover, because the tutors as well as their students gain from the tutoring experience, we are able to offer university credit to the tutors, thereby making the tutoring an attractive option for university students and making it possible to employ tutors at minimal costs.

Current conceptions of writing (see Graves & Piche, 1989) and several constructs drawn from contemporary cognitive psychology (see particularly Resnick, 1989; Resnick & Klopfer, 1989) suggest powerful techniques for tutors to employ. The basic model underlying the tutoring is the widely accepted process model of Flower and Hayes (1980), a recursive model that focuses on the writer's mental operations of *planning,*

translating, and *reviewing* along with a small number of subprocesses. In keeping with this model, we planned to have tutors assist students in all phases of writing—including identifying an audience, choosing a topic, locating information on the topic, organizing that information, drafting an initial text, and revising the text. In keeping with the cognitive orientation, we also planned to have tutors provide students with what has been called a *cognitive apprenticeship* (Collins, Brown, & Neuman, 1989). Central notions in the apprenticeship model include promoting active learning (Anderson, 1989), modeling the thinking students need to engage in when writing (Roehler & Duffy, 1984), providing scaffolding to assist students in successfully completing the various writing subtasks (Wood, Bruner, & Ross, 1976), gradually turning over increasing responsibility for the writing to the students (Pearson & Gallagher, 1983), motivating students to accept and even seek out challenges (Dweck, 1986), and placing instructors in the role of coaches (Lesgold, 1988).

In the present project, 11 University of Minnesota undergraduate and graduate students in English tutored 28 tenth grade students in a Twin Cities high school. Tutors worked with the students for eight weeks, responding to four writing assignments. The remainder of this report is divided into three sections — a description of the project, the results of the project, and our discussion and personal evaluation of the project and of the potential for similar projects. Because this report is written for the Center for Interdisciplinary Studies in Writing, our focus is on the tutors rather than on the tutees.

Description of the Project

Here, we describe the tutors and the students who were tutored, the materials used, the

training the tutors received, the procedures followed, and the evaluation techniques

employed.

The Tutors and Students Tutored

The tutors were 11 students in the University of Minnesota English Department.

Nine of the students were seniors and two were graduate students. All of the seniors were

planning to enter teaching careers, and one of them worked as a writing tutor for General

College. Both of the graduate students were in the M.A. program, and both of them

taught composition courses at the University.

The students were 28 tenth graders at Totino-Grace High School in Fridley,

Minnesota. The student body at Totino-Grace is largely white and middle class. The

students we worked with seemed to be academically oriented and were extremely

cooperative, and the school itself is pleasant and well run. Students did their writing in a

new, attractive, and well-equipped Macintosh laboratory in which each student had a

computer.

Materials

Materials included a description of the writing assignments given by the Totino-

Grace teacher with whom we were working, articles and chapters to be read by the tutors,

and several evaluation instruments. The writing assignments were a character sketch, a

persuasive essay, a response to the theme of a short story, and a description of one

character in a novel from the point of view of another character in the novel.

The articles and chapters included selections from Anson's *Writing and Response* (1989), Graves & Piche's "Knowledge about Reading and Writing" (1989), Heath & Branscombe's "Intelligent Writing in an Audience Community" (1985), Hillocks' "Synthesis of Research on Teaching Writing" (1987), excerpts from Hillocks' *Research on Written Composition* (1986), excerpts from Huff and Kline's *The Contemporary Writing Curriculum* (1987), and Marsello's "Boosting Student Esteem All the Way—to Failure."

The evaluation materials included a prompt for a pre- and post -essay written by the tutors, an analytic scale for grading the essays, instructions for classifying the content of tutors' responses, and a questionnaire and two open-ended questions given to the tutors at the end of the quarter. The essay prompt was a statement from Ross Perot supportive of affirmative action programs. The analytic scale was modeled on those of Diederich (1974) and Cooper and Odell (1977) and included six subscales—content, organization and structure, style and voice, sentence clarity, word choice, and mechanics and usage— on which the essays were rated as high, middle, or low. The instructions for classifying the content of tutors' responses described procedures for classifying the responses along three dimensions—the topic (social matters, logistic matters, or the writing itself), the attention given to praise versus criticism (praise versus criticism, questions, or suggestions), and the attention given to four levels of discourse (mechanics and/or words, phrases and/or sentences, multiple-sentences or paragraphs, and the essay and contextual or pragmatic matters). The questionnaire included 31 items. About half were short answer questions; the other half were statements followed by response options such as "not much," "some," "quite a bit," and "a lot." One open-ended question asked tutors what

they had learned about their own writing; the other asked what they had learned about teaching writing. The essay prompt, analytic scale, instructions for classifying the content of tutors' responses, and questionnaire are included in the appendices.

Procedures

The tutors met as a class weekly for two hours. During the class, we discussed the theory and practice of responding to students' writing, and tutors made presentations in which they described their students' writing, their responses to the writing, and the students' subsequent revisions. The general approach taken was a practical, hands-on approach, a sort of on-the-job training.

As noted, students wrote a total of four assignments. They did one draft of the first assignment, two drafts of the second and third assignments, and three drafts of the fourth assignment. Students' drafts were sent to the tutors each week on the AppleLink telecommunications network. Tutors responded to them within two days and sent students their comments on the network. Thus, during the five-day school week, students had something less than three days to write or revise each draft and tutors had something less than two days to respond to a draft.

In general, all parties—the students, the teachers at Totino-Grace, and the tutors—worked diligently and were cooperative.

Evaluation

The project was evaluated using the pre- and post-essays, tutors' responses to the questionnaire and the open-ended questions, and tutors' responses to the first and fourth assignments. One hour was allowed for writing the essay. Tutors wrote the pre-essay about a week after the quarter began and the post-essay at the last class meeting. Thus,

the time period separating the two essays was about two months. Tutors also completed the questionnaire at the last class meeting, taking about 20 minutes to do so. They answered the two open-ended questions during the next to last class meeting, taking about 20 minutes with this task also.

The pre- and post-essays were randomly ordered and evaluated by blind raters who had been trained in using the analytic scale developed for the project. The raters gave each essay a score on each of the analytic scales and a single holistic score. These data were analyzed using paired *t* tests. Results on the questionnaire and answers to the open-ended questions were summarized or tallied.

One of each tutor's responses to the first writing assignment and the fourth writing assignment was analyzed along the three dimensions described above by a rater trained in using the classification system developed for the project.

Results of the Project

Here we present results on the pre- and post-essays, the classification of the tutors' responses, and selected tutor responses to the questionnaire and the open-ended questions.

Mean pre- and post-essay scores were as follows: For Content, pre-essay = 2.09 and post-essay = 1.91. For Organization and Structure, pre-essay = 2.27 and post-essay = 1.82. For Style and Voice, pre-essay = 2.09 and post-essay = 1.91. For Sentence Clarity pre-essay = 2.0 and post-essay = 1.73. For Word Choice, pre-essay = 2.18 and post-essay = 2.0. For Mechanics and Usage, pre-essay = 2.45 and post-essay = 2.01. And for the Holistic Score, pre-essay = 2.09 and post-essay = 1.82. As can be seen, pre-essay scores

were actually higher than post-essay scores in every case. However, a series of *t* tests indicated that none of these differences was significant ($p > .05$).

Classification of the content of tutors' responses across the first and fourth assignments showed that the average length of the responses was 465 words and that the responses ranged in length from 204 to 826 words. Of this total, about 35 percent of the responses were devoted to social matters, about 5 percent of the responses were devoted to logistic matters, and about 60 percent of the responses were devoted to the writing itself. Examples of social comments include: "Hey, it's going good. How's it going with you? My name's Mike and I'm a student here at the U of M." and "So, Amber, I guess this is the end. I want you to know I really liked reading all your work." Examples of logistic comments include: "I like to begin with the task at hand. I am aware that we won't get a second draft of this writing, so these comments can be used for future use." and " I look forward to working with you—perhaps we can loosen Mrs. Briel's stranglehold." Examples of comments on students' writing include: "I liked how you used lots of specific details about his physical appearance and in describing his actions." and "In the first sentence of the second paragraph, switch the predicate so it starts with 'I was' and ends with 'marry Jane.' I think the sentence will read more smoothly."

Classified as praise or criticism, about 35 percent of the responses devoted to writing were identified as praise, and about 65 percent were identified as criticism. Examples of praise include: "Your mom really sounds neat. I bet she would be proud of this piece and being a role model for you." and "Your first sentence, where you tell the reader that he is 'the most caring and faith-filled man,' is really a specific and assertive one." Examples of criticism include: "One thing which might help you in a future paper

is to watch out for too much drama." and "In your description of her you mention her 'confidence in every step she strides.' Instead of saying that give a specific example of when she showed this behavior. It makes a character more real."

Classified in terms of the level of the discourse they dealt with, about 8 percent of the responses devoted to writing dealt with matters at the mechanics or word level, about 13 percent of them dealt with matters at the phrase or sentence level, about 13 percent of them dealt with the multiple sentences or paragraphs, and about 66 percent of them dealt with the essay and contextual or pragmatic matters. Examples of comments at the mechanics or word level include: "You used <u>me</u> when you should have used <u>I</u>" and "You need to choose your word selection a little better. For example, in 'when Tracy gets to putting herself together,' instead of using 'gets to,' use 'begins' or 'starts'."

Examples of comments at the phrase or sentence level include: "You can create a more specific description of the feature [of the person you are describing] and let the reader make the conclusion. For example, you could say that he had a 'warm, broad smile for everyone he talked to'." and "You make a nice observation about Ellie's most mature act of the story. I think you should reword that sentence though. It sounds a little choppy."

Examples of comments at the multiple-sentence or paragraph level include: "I want you to brainstorm a little more about how drugs hurt families and friends. This is a critical point that not everyone thinks about, so it would be really exciting if you could develop this paragraph. How are families more abused than the user? Does part of that include feeling helpless and frustrated?" and "I'm confused about a logical connection in the first paragraph. You first ask why he might defend a man who has no chance of being

found innocent, and then you relate that to money. These seem like two different things. The first is connected to pride and success, the second to financial. . . . [Consider] a simple revision like 'Then I realized that Atticus wasn't taking the case to gain fame or earn money, he was concerned for Mr. Robinson.' You probably have a better way, but this gets at what I mean."

Examples of comments at the essay, pragmatic, or contextual level include: "I just looked at your character sketch and I was amazed at how much you wrote about this person. Keep this up." and "I liked how you used lots of specific details about his physical appearance and in describing his actions."

Classified in these ways, tutors' responses to the first and fourth assignments did not differ a great deal. Classification of tutors' responses on the first assignments showed that the average length of the responses was 527 words and that the responses ranged in length from 242 to 826 words. Of this total, about 45 percent of the responses were devoted to social matters, about 5 percent of the responses were devoted to logistic matters, and about 50 percent of the responses were devoted to the writing itself.

Classified as praise or criticism, about 40 percent of the first assignment responses devoted to writing were identified as praise, and about 60 percent were identified as criticism.

Classified in terms of the level of the discourse they dealt with, about 15 percent of the first assignment responses devoted to writing dealt with matters at the mechanics or word level, about 20 percent of them dealt with matters at the phrase or sentence level, about 5 percent of them dealt with the multiple sentences or paragraphs, and about 60 percent of them dealt with the essay and contextual or pragmatic matters.

Classification of tutors' responses on the fourth assignments showed that the average length of the responses was 402 words and that they ranged in length from 204 to 618 words. Of this total, about 25 percent of the responses were devoted to social matters, about 5 percent of the responses were devoted to logistic matters, and about 70 percent of the responses were devoted to the writing itself.

Classified as praise or criticism, about 25 percent of the fourth assignment responses devoted to writing were identified as praise; about 75 percent were identified as criticism.

Classified in terms of the level of the discourse they dealt with, about 1 percent of the fourth assignment responses devoted to writing dealt with matters at the mechanics or word level, about 7 percent of them dealt with matters at the phrase or sentence level, about 22 percent of them dealt with the multiple sentences or paragraphs, and about 70 percent of them dealt with the essay and contextual or pragmatic matters.

Three items on the questionnaire elicited responses that seem particularly worth highlighting. In response to the request to "List what you see as the three most important characteristics of writing assignments for secondary students," nearly all tutors noted that students need detailed and specific assignments with the purposes, expectations, evaluation criteria, and audience clearly provided. One tutor, for example, wrote: "Clarity: It is important to make it clear to the student what you are looking for—there's no telling what you will get in return otherwise."

In response to the question "How important is it for secondary school teachers to give students well fleshed out assignments in which they specify the purpose of the writing, the audience for the writing, the characteristics of the final product, and the steps

needed to produce the final product?" nearly every tutor indicated "very important." Conversely, in response to the question "How frequently do you think secondary school teachers give students well fleshed out assignments in which they specify the purpose of the writing, the audience for the writing, the characteristics of the final product, and the steps needed to produce the final product?" nearly every tutor indicated "infrequently."

Finally, in response to the question "How much improvement in your writing could be expected over a two/three month period?" one tutor indicated "not much," six indicated "some," and four indicated "quite a bit." In response to the question "How much do you think your writing improved over the period of the tutoring?" one tutor indicated "not much," five indicated "some," four indicated "quite a bit," and one indicated "a lot."

In response to the open-ended question about what they had learned about their own writing, nine students reported learning several things and two students said that they had not learned anything new but had relearned things they knew at one time but had since forgotten. Topics that were listed more than once included the importance of audience ("I find now that I pay more attention to audience in my writing."), the usefulness of comparing their writing to that of high school students ("I think it was helpful to see what level these kids were writing at because I tried to remember if that is how I wrote at that age. It helps me to see how far I have, or haven't, come."), and the need for writing to have direction and focus ("I've learned how important it is to make sure you know what you are writing about." "What I've learned about my own writing from this class is mostly how important it is to stay focused.").

In response to the open-ended question about what they had learned about the teaching of writing, all students reported learning several things. Topics that were listed more than once included the importance of teachers having definite goals and directions for students ("Writing teachers need to be organized and consistent"), the difficulty of selecting what to comment on ("I was amazed . . . at how much actually goes into deciding what's important"), the importance of writing appropriately for the student audience ("I've developed some sensitivity to the different levels of development writers write from and developed an appreciation for the necessity of responding to their writing at whatever level they are currently operating"), and the importance of praise ("The most important thing I've learned from this class is the effect that praise has.... In reflecting on my own writing experiences, the majority of teachers' comments are devoid of any praise.")

Discussion and Personal Evaluation of the Project

Here, we discuss the results of the pre- and post-essays, the classification of the tutors' responses, and the tutors' responses to the questionnaire and open-ended questions. We also consider the extent to which some of our goals for the project were realized.

Obviously, tutors' writing skills did not improve over the period of the tutoring. Four factors seem likely to account for this. First, the tutors were relatively skilled writers to begin with—seniors and graduate students—and had already had a lot of instruction and practice in writing. Improving the skills of such writers is likely to require more direct effort than was put forth here. Second, the time between the pre- and post-essays was only two months. A longer time period is almost certainly needed to get general

improvements in writing. Third, we gave the same essay topic for both the pre- and post-essay, and students' comments indicated that they did not want to write about it a second time. Fourth, logistical constraints forced us to give the pre-essay as an out of class assignment and the post-essay as an in class assignment. A better test of the hypothesis that tutors' writing skills will improve would employ less-skilled writers as tutors, provide some writing instruction for the tutors, extend the tutoring over a longer time period, counterbalance the pre- and post-essay topics, and have both essays written in class.

Our conclusions stemming from tallying the length of tutors' responses and the classification of tutors' responses are considerably more positive. A major premise underlying the project is that tutors—unlike typical high school teachers—can and will provide students with substantial amounts of feedback on their writing. Since the average length of tutors' responses was 465 words, this was clearly demonstrated in the project.

We asked tutors to include social comments as well as comments on students' writing in their responses, and they clearly did so. About 35 percent of tutors' comments were social and about 60 percent of them dealt specifically with writing. We do not know what the mix ought to be, but we believe that the mix tutors used are reasonable.

We also asked tutors to include a good deal of praise in their comments, and they clearly did this. About 35 percent of tutors' comments on students' writing were positive with the remaining 65 percent of it being critical, defined here as criticism, suggestions, or questions. Again, we do not know exactly what the mix ought to be, but we believe that this mix is reasonable. At the very least, such a mix seems far superior to the

overwhelming proportion of criticism that our experience and the literature suggest is typical of responses to student papers.

Additionally, we urged tutors to give attention to various levels of writing, particularly stressing that they should give attention to the content and meaning of the writing and not deal solely with mechanics. About 8 percent of the tutors' comments were at the mechanics or word level, about 13 percent at the phrase or sentence level, about 13 percent at the multiple sentence or paragraph level, and about 66 percent at the essay, contextual, or pragmatic level. Once again, we do not know exactly what the mix ought to be, but we believe that this mix is reasonable. At the very least, such a mix seems far superior to the overwhelming proportion of mechanical comments that are often found in responses to student papers.

Regarding tutors' responses to the questionnaire and answers to the open-ended questions, we can also be positive. Tutors indicated that they learned quite a bit about writing and responding to students' writing, and the responses they made on the questionnaire support their beliefs. Their comments on the importance of making assignments and expectations clear to students, on the importance of having a purpose for writing and of writing for a particular audience, on the importance of teachers being organized and consistent, and on the importance of praise all seem very well taken.

In conclusion, we will make a few remarks about the extent to which some of our major goals were achieved. One goal was to test a method of getting high school students significant amounts of constructive feedback on their writing. We believe that the project was very successful here, more successful than we would have predicted.

A second goal was to provide such feedback inexpensively. We were not as successful here. Tutoring via telecommunications takes substantial amounts of college instructors', high school teachers', teaching assistants', or tutors' time. We suspect that an argument in favor of tutoring via telecommunications will be better made by considering the quality of the response students receive than by considering the cost of that response.

A third goal was improving tutors' writing. As we have already noted, we were not successful here. Some combination of employing less-skilled writers as tutors, providing some writing instruction for the tutors, and extending the tutoring over a longer time period is likely to be needed to achieve this goal.

A fourth goal was improving tutors' skills at responding to students' writing and helping them better understand younger students and their writing capabilities and interests. We believe the project was very successful here. We believe that the project provided excellent training for university students who plan to work in the area of writing, whether at the college level or the public school level. The chance to work intensively with a small number of students, the situation of having to communicate in writing about writing, and the opportunity to do this without having to repeatedly travel to a tutoring site are substantial advantages offered by tutoring via telecommunications.

All in all, we are both encouraged and challenged by what we have learned thus far. We are currently running two small projects and continuing to seek funding for further investigation of tutoring via telecommunications.

References

Anderson, L. M. (1989). Learners and Learning. In M. Reynolds (Ed.), *Knowledge Base for the Beginning Teacher* (pp. 85-100). New York: Pergamon.

Anson, C. (Ed.). (1989). *Writing and Response: Theory, Practice, and Research.* Champaign, IL: NCTE.

Brown, J. S., Collins, A.., & Duguid, P. (1989). Situated Cognition and the Culture of Learning. *Educational Researcher 18*, 32-42.

Bump, J. (1990). Radical Changes in Class Discussion Using Networked Computers. *Computers and the Humanities 24,* 49-65.

Cohen, P. A., Kulik, & Kulik. (1982). Educational Outcomes of Tutoring: A Meta-analysis of Findings. *American Educational Research Journal 19*, 237-248.

Cohen, M. & Riel, M. (1989). The Effect of Distant Audiences on Students' Writing. *American Educational Research Journal 26*, 143-159.

Collins, A., Brown, J. S., & Neuman, S.E. (1989). Cognitive Apprenticeship: Teaching the Crafts of Reading, Writing, and Mathematics. In L. B. Resnick (Ed.), *Knowing, Learning, and Instruction: Essays in Honor of Robert Glaser*. Hillsdale, NJ: Erlbaum.

Cooper, C.A. & Odell, L. (1977). *Evaluating Writing: Describing, Measuring, Judging.* Champaign, IL: NCTE.

Cooper, M. M. & Selfe, C. L. (1990). Computer Conferences and Learning: Authority, Resistance, and Internally Persuasive Discourse. *College English 52*, 847-869.

Diederich, P. B. (1974). *Measuring Growth in English.* Champaign, IL: NCTE.

Duin, A. H. & Hansen, C. (1994). Social Construction and Interaction: The Making of Collaborative Meaning Via Computer Networks. In S. Hilligoss & C. L. Selfe (Eds.), *Literacy and Computers*. New York: Modern Language Association.

Dweck, C. (1986). Motivational Processes Affecting Learning. *American Psychologist 41,* 1040-1048. Flower, L. & Hayes, J. R. (1980). The Cognition of Discovery: Defining a Rhetorical Problem. *College Composition and Communication 31*, 21-32.

Graves, M. F. & Piché, G. L. (1989). Knowledge About Reading and Writing. In M. C. Reynolds (Ed.), *Knowledge Base for the Beginning Teacher* (pp. 207-220). New York: Pergamon.

Greenwood, C. R. et al. (1988). The Use of Peer Tutoring Strategies. *School Psychology Review 17*, 258-275.

Hartman, K. et al. (1991). Patterns of Social Interaction and Learning to Write. *Written Communication 8*, 79-113.

Heath, S. B. & Branscombe, A. (1985). 'Intelligent Writing' in an Audience Community: Teacher, Students, and Researcher. In S.W. Freedman (Ed.), *The Acquisition of Written Language: Revision and Response.* Norwood, NJ: Ablex.

Hillocks, G. (1987). Synthesis of Research on Teaching Writing. *Educational Leadership 44,* 71-82.

Hillocks, G. (1986). *Research on Written Composition. New Directions for Teaching.* Champaign, IL: NCTE.

Huff, R. & Kline, C.R. (1987). *The Contemporary Writing Curriculum: Rehearsing, Composing, and Valuing.* New York: Teachers' College Press.

Lesgold, A. (1988). Problem Solving. In R.J. Sternberg & E. E. Smith (Eds.), *The Psychology of Human Thought*. New York: Cambridge University Press.

Marsello, A. W. (1991). Boosting Student Esteem All the Way—to Failure. *English Journal 80,* 72-73.

McKeachie, W. J. et al. (1986). *Teaching and Learning in the College Classroom*. Ann Arbor, MI: NCRIPTL.

Pearson, P. D. & Gallagher, M. C. (1983). The Instruction of Reading Comprehension. *Contemporary Educational Psychology 8*, 317-344.

Resnick, L. B. (Ed.). (1989). *Knowing, Learning, and Instruction: Essays in Honor of Robert Glaser*. Hillsdale, NJ: Erlbaum.

Resnick, L. B. & Klopfer, L. E. (Eds.). (1989). *Toward the Thinking Curriculum: Current Cognitive Resear*ch. Washington, DC: ASCD.

Roehler, L. R. & Duffy, G. G. (1984). Direct Explanation of Comprehension Processes. In G. G. Duffy, L. R. Roehler, & J. Mason (Eds.), *Comprehension Instruction: Perspectives and Suggestions*. New York: Longman, 1984.

Sirc, G. & Reynolds, T. (1991). The Face of Collaboration in the Networked Writing Classroom. *Computers and Composition 7*, 53-70.

Wood, D. J., Bruner, J. S., & Ross, G. (1976). The Role of Tutoring in Problem Solving. *Journal of Child Psychology and Psychiatry 17*, 89-100.

Appendices

Appendix A   Prompt for Mentors' Pre- and Post- Essays

Appendix B   Analytic Scale for Evaluating Mentors' Essays

Appendix C   Instructions for Classifying the Content of Tutors' Responses

Appendix D   Writing Across Schools Questionnaire for Totino-Grace Tutors

Appendix A

Prompt for Mentors' Pre- and Post –Essays

The following quotation is from a talk H. Ross Perot gave to the Economic Club of Detroit in 1986. Imagine you are writing a short op-ed piece for the *Minneapolis Star Tribune*. Use the Perot quote as a springboard to argue for the importance and justification of employing affirmative action procedures in business and industry as well as in public schools and universities. You may actually use the quote in your piece, or you may simply refer to it, or you may simply incorporate the idea it expresses without referring to it.

Assume that the optimal length for a short op-ed piece is about 400 words. Also assume that a secretary will type the draft you turn in before anyone reads it. Note, however, that the draft must be legible and that the secretary will simply type a clean copy of what you produce (mainly deleting anything you cross out and inserting anything you indicate should be inserted) and will not make any corrections.
You have one hour to complete and turn in your writing.

> "Folks, I'm going to tell you the playing field is never level. . . . . Too many of us grew up in a world where we owned the bat, the ball, the stadium, both teams, and the lights."

Appendix B

Analytical Scale for Evaluating Mentors' Essays

<u>**I. Content**</u>

High

The mentor has given some thought to the topic and writes what he or she really thinks. The mentor discusses each main point long enough to show clearly what he or she means. The mentor supports each main point with arguments, examples, or details; the mentor gives the reader some reason for believing it. Points are clearly related to the topic and to the main idea or impression he or she is trying to convey.

Middle

The mentor gives the impression that he or she does not really believe what is being written about. The mentor does not fully understand the topic and tries to guess what might be appropriate for the essay, and writes what he or she thinks will get by. The mentor does not explain points very clearly or make them come alive to the reader. The mentor writes what he or she thinks will sound good, not what he or she believes or knows.

Low

It is either hard to tell what points the mentor is trying to make or else they are so silly that, if the mentor had only stopped to think, he or she would have realized that they made no sense. The mentor is only trying to get something down on paper. He or she does not explain points, only asserts them and then goes on to something else, or repeats them in slightly different words. The mentor is not concerned with supportable information.

II. Organization and Structure

High

The mentor has developed an introduction, which states the topic and the thesis, and a conclusion, which restates the topic and brings closure to the paper. The writer orders ideas in clearly formed paragraphs. The paper flows smoothly through the use of transitions.

Middle

The mentor has developed an introduction consisting of either a statement of the topic or the thesis, but not both. The conclusion is not differentiated from the body of the text, but there is closure. Paragraph structure does not show good reasoning. Too many things may be included in one paragraph. Some paragraph breaks seem to be arbitrary. Transitions are used sparingly. There is some choppiness from ideas to idea.

Low

The mentor has used no introduction or conclusion. If the mentor has made an attempt at an introduction or a conclusion, it is a haphazard try, not necessarily containing a thesis or topic. There is little to no regard for paragraph structure. The paper has choppy organization due to lack of transitions.

III. Style and Voice

High

The mentor establishes a clear, consistent voice and point of view. The mentor seems to have a firm grasp of his or her audience. The mentor uses a style that is interesting, holds the reader's attention, and motivates him or her to continue to read. (Personal experience, use of metaphor)

Middle

The mentor's voice is difficult to identify or may be inconsistent and/or confusing. The mentor lacks awareness of audience. The style seems blank and not very interesting.

Low

The mentor shows no recognizable voice in the piece. The style seems flat and lifeless and shows no concern for audience. The paper fails to hold reader's attention.

IV. Sentence Clarity

High

The mentor shows confident control of sentence structure. There are no run-on sentences or sentence fragments. The paper reads smoothly from sentence to sentence. Sentences are varied in length and structure.

Middle

The mentor shows some control of sentence structure and there are almost no run-on sentences or sentence fragments. The mentor only occasionally writes a sentence, which is awkward or puzzling.

Low

The mentor has many problems with sentence structure. There are probably run-on sentences and sentence fragments. Sentences are short and simple in structure, somewhat childlike and repetitious in their patterns.

V. Word Choice

High

The mentor's words are employed in a unique and interesting way. Most vocabulary is appropriate to support style, clarity, and usage.

Middle

The mentor uses common ordinary words in the same old way. The paper may have some trite over-worked expressions. The mentor, on the other hand, may work so hard at being different, that he or she uses words that are not natural to his or her voice. Some of the vocabulary might be inappropriate to support, clarity, and usage.

Low

The mentor's word choice is limited and inappropriate for the voice. Sometimes words are used incorrectly or the wrong word is used.

VI. Mechanics and Usage

High

The mentor consistently uses appropriate punctuation, capitalization, spelling, and usage, (no more than two errors in mechanics and usage per page).

Middle

The mentor uses proper punctuation, capitalization, spelling, and usage most of the time, (no more than five errors in mechanics and usage per page).

Low

The mentor's writing contains many errors in punctuation, capitalization, spelling, and usage (more than five errors in mechanics and usage per page).

Appendix C

Instructions for Classifying the Content of Tutors' Responses

Skip the salutation and complementary close, but include any postscripts or notes.

Count the total words in the response, listing the words in each line on the right hand side

of the paper.

Indicate the sections of the response dealing with (1) social matters, (2) logistic

matters, or (3) the writing itself. Use green highlighting for social, blue for logistic, and

nothing for writing. All of the response must be classified, and nothing can be classified

in two categories; however, sentences can be broken up so that part of a sentence is

placed in one category and part is placed in another.

The next two classifications have to do with just the sections of the response

dealing with writing, the section that is not color-coded.

First, classify the writing section of the response as either (1) praise or (2)

criticism. Anything complimentary counts as praise. Anything that is critical, suggests an

alternative or addition, or asks a question about an aspect of the writing counts as

criticism. All of the tutor's writing response must be classified as either praise or

criticism, and nothing can be classified in both categories; however, sentences can be

broken up so that part of a sentence is placed in one category and part in another. In the

key, praise is indicated by pink highlighting, and criticism is indicated by orange

highlighting.

Next, classify the writing section of the response as dealing with (1) mechanics

and/or words, (2) phrases and/or sentences, (3) multiple-sentences or paragraphs, or (4)

the essay and contextual or pragmatic matters. Here, it may be necessary to classify some

sections as dealing with more than one level, but do not do so unless necessary. In the

key, mechanics and words are indicated by purple highlighting, phrases and sentences by

yellow highlighting, paragraphs by blue, and the essay and contextual or pragmatic

matters by pink.

Appendix D

Writing Across Schools Questionnaire for Totino-Grace Tutors

The Writing Process

1. Name the three components of the process model of writing.

_____

_____

_____

2. What does it mean to say that these processes are recursive and non-linear?

_____

_____

_____

_____

_____

3. How recursive and non-linear are they?

_____Not Very
_____Somewhat
_____Quite
_____Very

4. How much have you learned about the process model of writing from participating in the tutoring project?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

5. How much have you learned about the actual process students use when they write, not the process model but how students actually write?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

Teaching Writing and Responding to Students' Writing

6. List what you see as the three most important characteristics of writing assignments for secondary students.

_____

_____

_____

_____

_____

_____

7. How important is it for secondary school teachers to give students well fleshed out assignments in which they specify the purpose of the writing, the audience for the writing, the characteristics of the final product, and the steps needed to produce the final product?

_____Unimportant
_____Somewhat Important
_____Quite Important
_____Very Important

8. How frequently do you think secondary school teachers give students well fleshed out assignments in which they specify the purpose of the writing, the audience for the writing, the characteristics of the final product, and the steps needed to produce the final product?

_____Infrequently
_____Somewhat Frequently
_____Quite Frequently
_____Very Frequently

9. About what percent of the total time students spend on a writing assignment should be devoted to prewriting, writing, and revising?
_____Prewriting

_____Writing
_____Revising

10. About how many drafts of a writing assignment should students generally do?

_____

11. About how many drafts of a writing assignment do students typically do?

_____

12. About what percent of the time you spend responding to students' writing should be spent on their prewriting, first draft, second draft, and subsequent drafts?

____Prewriting
____First Draft
____Second Draft
____Subsequent Drafts

13. About how many writing assignments would you give during an 18-week semester?

_____

14. About how many features of a student's writing would you usually comment on?

_____

15. About how long (in single-spaced, typewritten pages) should your comments be?

_____

16. About how long in comparison to the student's writing should your comments be?

____Considerably Shorter
____About Half as Long
____About the Same Length
____Longer

17. About what percentage of your comments should be devoted to the context of the class (the student's previous writing in the class and topics you have covered in class), the context of the writing (audience and purpose), the content of the paper, and mechanics?

____Context of the Class
____Context of the Writing
____Content of the Paper
____Mechanics

18. About what percentage of secondary teachers' comments are typically devoted to the context of the class, the context of the writing, the content of the paper, and mechanics?

_____Context of the Class
_____Context of the Writing
_____Content of the Paper
_____Mechanics

19. How much have you learned about teaching writing from participating in the tutoring project?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

20. How much have you learned about responding to students' writing have you learned from participating in the tutoring project?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

Your Students' Writing

21. About how many revisions did your students typically make?

_____

22. About what percentage of the revisions you asked your students to make did they typically make?

_____

23. How much did your students typically revise?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

24. How would you rate the quality of your students' second drafts compared to their first drafts?

_____About the Same
_____Somewhat Better

_____Quite a Bit Better
_____A Lot Better

25. How much did your students' writing improve over the period of the tutoring?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

26. How much improvement in students' writing could be expected over a two to three month period?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

27. Briefly describe any effects you think the tutoring may have had on your students' writing.

_____

_____

_____

_____

_____

Your Writing

28. How much do you think your writing improved over the period of the tutoring?

_____Not Much

_____Some
_____Quite a Bit
_____A Lot

29. How much improvement in your writing could be expected over a two to three month period?

_____Not Much
_____Some
_____Quite a Bit
_____A Lot

30. Briefly describe any effects participating in the tutoring project may have had or may yet have on your writing?

_____

_____

_____