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A LONGITUDINAL STUDY OF SIX DEVELOPMENTAL STUDENTS' PERFORMANCE IN READING AND WRITING¹

ABSTRACT: Six students scheduled into developmental reading and writing courses at the University of Florida voluntarily participated in a longitudinal study designed to trace their progress in reading and writing. According to results from multiple-choice tests and essays, several students progressed during the 3½-year span, although the improvement was neither linear nor extensive. However, through questionnaires and interviews, the six students showed increasing metacognitive awareness of their own strengths and weaknesses; they also improved in their attitudes toward reading in particular.

The question of what happens over the long term to under-prepared students in a university setting is an intriguing one. As Hull and Rose observe, "Students in [the most remedial] classes are very much 'at risk' to succeed, and, in some ways, they present profound challenges to the stated mission of the institutions that enroll them" (*Written Communication*, 1989, 144). For those of us teaching basic reading and writing courses to specially admitted freshmen at a large public research university, the central issue has always been whether our efforts on students' behalf at the beginning of their college careers make a difference in enabling them to cope afterward. Although

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pre- post-evaluations of our program have consistently indicated its effectiveness, the personal, long-term impact such instruction in reading or writing might have on individual students has been far less clear.

Thus, we have wondered whether our program has succeeded in identifying and building from the abilities that our students *do* have, a practice labeled as “generative” by Hull and her colleagues (Hull, Rose, Greenleaf, Reilly, 1991, 13). We have wondered, too, at what point our students come to terms with what Bartholomae calls the conventions of the academic community (1985, 158-59). To answer these questions, I undertook to trace longitudinally over four college years the progress of one special admissions class; my goal was to determine whether students improved in the reading and writing skills and whether these skills had made a difference for their college success long-term.

Participants in the Study

Unlike the participants in Walter Loban’s (1975) landmark longitudinal study of students’ language skills development, the population in my study shrank considerably, and by the fourth year only six students of the original 139 special admissions students who had entered the university in June, 1989, were still participating in the study. These six were part of the 80 students or 58 per cent of the original special admissions group who continued to be enrolled in the university 3½ years later. Of those 80, 48 were third-year students, 24 were fourth-year students, and 8 were second- or first-year students, who had returned after dropping out for one or more terms.

Like the larger special admissions group to which they belonged, the students in the study also spanned several years: Pauline was a fourth-year student; Jackie, Ella, Dorothy, and Willie were third-year students, and Kimberly, who had dropped out for a term or two after doing poorly, was a second-year student. Jackie, Ella, Dorothy, and Kimberly were African Americans, as was Willie, the only male in the study; Pauline, who was white, was from France and had had very weak English skills when she entered. The composition of this group was typical of the original 139, of whom 103 were African American, 24 white, 6 Hispanic, and 4 Asian. (Since the inception of this study, the number of other minorities and ESL speakers participating in the special admissions program has increased substantially to about 40%.)

Nature of the Reading and Writing Program

Developmental reading and writing courses at the university are directed to special admissions students whose entering SAT scores fall below the state-required 900. (The actual SAT score of the cohort group at this institution is closer to 1150.) Students are given a series of placement tests upon their arrival to determine whether they will be required to take the special courses. These placement tests consist of a mathematics test, the nationally normed Nelson-Denny Reading Test, a multiple-choice test of writing choices, and an expository essay that is holistically scored in a formal scoring by an independent team of trained scorers. (Depending on their performance on the tests, students can also be placed in special math classes where additional help is available, and many are placed in a six-week study skills course as well.) Other resources, such as peer counselors and free tutoring in content-area courses, remain available to them throughout their college careers. Hence, the reading and writing courses comprise but one part of a special program designed to assist these students.

The reading and writing courses are typically two semesters long, although some students are screened out at the end of the summer term on the basis of their course performance and post-test scores. In both the reading and writing courses, students follow a highly structured curriculum that is taught by experienced teaching assistants and by the directors themselves of the reading and writing programs. The classes, which are capped at 12 or 15, meet twice a week, and students receive one credit for each course. The courses are parallel but distinct in that not every student is required to take two semesters of both reading and writing. In fact, after completing their placement tests, two of the six participants in the study were screened out of writing but not out of reading. The curricula in both courses blend an emphasis on process with an emphasis on skills, and, in an adaptation of the "expert scaffolding" set forth by Brown and Campione (1986, 1065), students are given guidance in practicing their skills until they gradually learn to apply the skills independently. Hence, in working with the need for a controlling idea in their writing, for example, students are first asked to identify the strong topic sentences in paragraphs or the thesis statement in essays, then to practice revising weak topic sentences that are assigned, next to complete practice exercises in creating topic sentences for possible paper topics, and finally, to write and revise short essays in which they apply what

they have learned about strong topic sentences and thesis statements. In a similar way, reading students practice comprehension skills in short, nonliterary passages before applying the techniques to longer selections.

Design of the Study

The study approximated a prospective panel design. As defined by Scott Menard, in such a design “data may be collected at two or more distinct periods, *for* those distinct periods, on the same set of cases and variables in each period” (1991, 4). At the end of 1989 students were informed about the study and encouraged to participate in subsequent years. Every autumn thereafter, interested students received letters inviting them to participate within a 10-day time framework in late November. They received honoraria of \$25-\$35 each year for their participation.

Twenty-nine students voluntarily returned in 1990, 15 in 1991, and 6 in 1992. Late each autumn, students wrote a 50-minute expository essay on one of two assigned topics; they took the standardized Nelson-Denny Reading Test; and they completed a questionnaire on their reading-writing practices. During the last year of the study, students also took a multiple-choice test of writing skills—identical to the one they had taken their freshman year for placement purposes. In addition, during the last year students met with me for an interview about their reading and writing experiences rather than completing a questionnaire. A list of the assigned topics, a copy of the questionnaire, and a guide for the interview are included in the Appendix.

Limitations of the Study

The study had several limitations. Not only was the number of participants who continued very small—consisting of self-selected students—but also the procedures themselves were somewhat problematic. That is, the writing sample the students completed each year was limited to one, on-demand writing. While this practice allowed for controlled conditions in that students were writing on similar topics under similar circumstances, it did not allow students to engage fully in the writing process with multiple drafts or with access to resources. Moreover, the use of one essay cannot be considered a reflective measure of any student’s overall writing ability, since it is

limited to one mode and one opportunity that may be marred by chance circumstances. Had I known that only six students would remain in the study, writing portfolios would have provided a better option. The measurement of students' reading progress was similarly restricted to one type of test.

Still another limitation is that students were being paid for their participation. How motivated they were to do well on each test or writing sample remains unknown.

Results of the Study

Reading Results

Students' reading skills were measured by the Nelson-Denny Reading Test. The test was first given in June of 1989 upon students' entry to the university and in November during subsequent years. Overall results are shown in Table 1.

Table 1
Nelson-Denny Reading Test Results

	Form E 1989	Form F 1990	Form E 1991	Form E 1992
Willie	78	97	97	96
	vocabulary: 36 comprehension: 42	vocabulary: 55 comprehension: 42	vocabulary: 48 comprehension: 49	vocabulary: 48 comprehension: 48
Jackie	59	77	66	81
	vocabulary: 25 comprehension: 34	vocabulary: 39 comprehension: 38	vocabulary: 34 comprehension: 32	vocabulary: 41 comprehension: 40
Ella	71	111	104	116
	vocabulary: 25 comprehension: 46	vocabulary: 49 comprehension: 62	vocabulary: 54 comprehension: 50	vocabulary: 58 comprehension: 58
Dorothy	62	97	77	103
	vocabulary: 24 comprehension: 38	vocabulary: 43 comprehension: 54	vocabulary: 37 comprehension: 40	vocabulary: 49 comprehension: 54
Pauline	51	100	86	102
	vocabulary: 21 comprehension: 30	vocabulary: 42 comprehension: 58	vocabulary: 38 comprehension: 48	vocabulary: 54 comprehension: 48
Kimberly	86	111	108	129
	vocabulary: 48 comprehension: 38	vocabulary: 57 comprehension: 54	vocabulary: 58 comprehension: 50	vocabulary: 77 comprehension: 52

During the 3½-year span of the study, all six students demonstrated clear improvement in reading from their first year to their last. The improvement ranged from 18 points in Willie's

case to 51 points in the case of the French student Pauline, and it occurred in both the comprehension subset and the vocabulary subset. The improvement was not linear, for in five students' cases a drop occurred in scores between 1990 and 1991. (The sixth student received identical scores for those years.) However, the explanation for this puzzling drop at one time may lie in the fact that Form F was given in 1990, whereas Form E of the Nelson-Denny was administered the three other years. Form F may thus be an easier form. If the three score results from only Form E in 1989, 1991, and 1992 are compared, there was steady progress for all students except Willie. While it may be argued that a test-retest factor could have explained the increase in scores, such a cause does not seem likely in that the tests were administered at least 12 months apart and the exams were never reviewed with the students.

Clearly, then, the students showed steady improvement in their reading skills. This improvement may be linked to a change in attitude that several students displayed toward reading, reflecting perhaps both a cause and an effect of their improved ability. Whereas Willie and Jackie indicated that they had disliked reading intensely upon their entry to school, they both said in their closing interviews that they liked it better. For example, Jackie, majoring in criminal justice, noted that she was reading much more now than when she arrived. Now, she said, she felt the need to read the student newspaper *the Alligator*, and she also subscribed to a sports magazine. Willie, who like Jackie had hated reading upon his entry, must do extensive reading for his major—business management. He said in his interview that he also was more apt to read for enjoyment now, and he “gets something” out of it. He now liked reading about his African American history, whereas before, he stressed, he wouldn't have thought of doing so. Even Pauline, a public recreation major for whom reading was still not pleasurable, said that she now read entire books or chapters, rather than relying solely on summaries as she had before. Kimberly, majoring in agricultural operations management, indicated that she read for pleasure whenever she could, such as over the summer; Dorothy, too, said that she enjoyed reading, although she noted that with her advertising major, there was no time to read for fun. Virtually all of the students, then, had developed more positive views toward reading.

The extent to which the students' directed reading instruction in our program may have helped them improve cannot be

ascertained from this small group, even though all students in the study had taken at least one semester of the reading course. Certainly, all students had frequent opportunities to practice their reading, as all six students indicated both on their questionnaires and in their interviews that their courses required extensive reading—an average of at least 4-7 chapters a week. In fact, during the interviews students spoke more often of their reading experiences than of their writing; this occurrence may indicate that reading has been a more continuous component of their college subjects than has writing, which, while emphasized in composition courses, then is often limited to an occasional paper for a course thereafter. Thus, sheer practice at reading—as well as an increasingly larger vocabulary—may contribute to students' seemingly steady improvement in reading. Notably, four of the six students reported that they felt increasingly confident about identifying the main idea in their reading selections.

As shown in their questionnaire responses of 1990 and 1991, some students clearly practiced the reading skills emphasized in the developmental courses, whereas others did not. For example, Willie, Dorothy, and Pauline responded that they previewed chapters before beginning assignments "most" of the time, while Jackie declined from "always" previewing to only "occasionally" doing so. Ella and Kimberly, on the other hand, answered that they "occasionally" or "never" did. As Ella was also the only student who was "never" confident about the main idea in reading, her reluctance to practice recommended previewing skills was noteworthy. Ella and Kimberly also acknowledged twice on their questionnaires that they "never" applied special studying strategies, such as SQ3R (survey question; read, recite, review) to their reading assignments; Jackie and Dorothy also decreased in their tendency to do so, while Willie and Pauline—both of whom confessed to strongly disliking reading upon their entry to school—replied both years that they did apply special strategies most of the time.

The interviews revealed students' growing awareness not only of what they had learned from the developmental courses but also of what they needed to do currently in their studying. For Kimberly, an adaptation of SQ3R had recently proved helpful in her reading even though, she readily acknowledged in the interview, she had not applied it to her subjects until she started experiencing trouble in her courses. (Her earlier questionnaire responses, as noted above, corroborated that tendency.)

She explained that the memorizing she had successfully used in high school in the Caribbean had not worked in college with the volume of reading that was required. Not until she started actively participating in reading by asking questions and writing in the margins did she find she “wandered off” less and began to retain information. This method, though slower than simply reading, she observed, saved time in the end. Now she was even conscious of how well her texts were written, and she became frustrated with poor texts.

The metacognition Kimberly described so clearly was particularly evident in two other students as well. Stressing that he had learned how to find main points in paragraphs and how to read for a purpose, Willie, like Kimberly, practiced his own variation of SQ3R and continued to highlight his readings. Dorothy, too, said that she still used some of the study techniques she had learned in the course, although she preferred taking notes on main ideas rather than highlighting while reading. Confessing that she read too fast for some purposes, Dorothy said she sometimes needed to reread material. She was not alone in this practice. All six students noted that whenever they encountered difficulties in reading a passage, they slowed down or read it over more slowly or tried some technique such as reciting it or summarizing it. What was significant in these observations was that the students did notice when they were experiencing comprehension difficulties.

The growing metacognitive awareness that these six students demonstrated about their reading capability represented a departure from the findings in Baker’s comprehension monitoring study in which college undergraduates did not notice many of the inconsistencies she deliberately set for them in their readings (1979, 371-72).

Writing Results

On the multiple-choice “Test of Writing Choices” given in June, 1989, and again in November, 1992, five of the six students showed some improvement. The test, which was designed by the Center director and validated by the Advanced Placement English classes at two area high schools, contains 40 items that comprise an essay on the importance of continuing one’s education lifelong. Students are required to make rhetorical decisions about the focus of the essay, strategies for development, and appropriate organization. They also make choices

about grammar, usage, mechanics, and sentence structure.

The mean raw score for the six students in the initial administration was 22.16 (or 55%), and the mean raw score was 27.3 (or 68%) in 1992. Students averaged a 5-point increase, although, as Table 2 indicates, the average was undoubtedly skewed by the 9-point increase made by Willie and the 16-point increase made by Pauline.

Table 2
Test of Writing Choices (40 items)

	Raw score in 1989	Raw score in 1992
Willie	18	27
Jackie	25	27
Ella	20	24
Pauline	12	28
*Dorothy	29	30
*Kimberly	29	28

*Screened out of developmental writing altogether

The two students who had received the highest initial scores—Dorothy and Kimberly—showed the least improvement, with Kimberly even scoring one item less. As both students still had considerable room for improvement on the 40-item test, a ceiling factor is not likely to have been involved. What may have been a contributing factor is that neither student had been required to take the special writing course and thus had not received the same type of directed instruction in editing skills that the other four had.

Results of Essay Scorings

Each year students in the study were asked to write a 50-minute expository essay on one of two topics. The topics, copies of which are in the Appendix, followed the paradigm developed by Hoetker and Brossell and used in the state-mandated College Level Academic Skills Test [CLAST]. The paradigm typically is a fragment, containing a class specification and two differentiating criteria. The paradigm is exemplified by such

topic phrases as “a book/that many students read/that may affect them beneficially” or “a common practice/in American colleges/that should be changed” which Hoetker and Brossell describe in their research (1986, 330). The topics required students to draw upon either their personal experience or their general knowledge, to create a thesis, and to support the thesis adequately within the timed framework without recourse to resources.

The essays from the four years were scored holistically by six highly experienced holistic scorers, most of whom have served as chief readers or table leaders for scorings in the state. The papers were scored on the same 6-point scale used for the Florida CLAST. As this exam is required for all Florida public college graduates, the use of its scoring scale indicated where the writers in the study stood in relation to their peers on a common standard. Names on the essays were covered, as were the scores assigned by the first readers. Readers were given a list of the eight topics used in the study although the essays were intermingled at random. Prior to the scoring, the readers independently rated the eight rangefinders used in a previous CLAST scoring and then tallied the results; this training procedure anchored them to the scoring scale.

Results of the scoring are listed in Table 3. The scores reflect the sum of two readers’ scores for a possible total of 12 points.

Table 3
Holistic Scoring of Essays

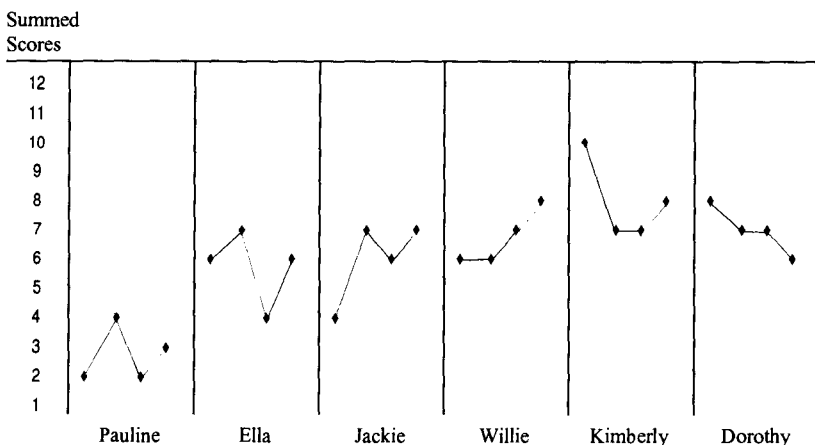
	1989	1990	1991	1992
Willie	6	6	7	8
Ella	6	7	4	6
Jackie	4	7	6	7
Pauline	2	4	2	3
*Dorothy	8	7	7	6
*Kimberly	10	7	7	8

* screened out of developmental writing altogether on the basis of 1989 essay scores and multiple-choice test scores.

As Figure 1 shows, the students initially appearing the weakest in writing either made some small gains or remained the same (unlike the two students who were screened out of the program). However, the improvement is neither consistent nor

linear. In fact, Ella, Jackie, and Pauline all showed a drop in scores from 1990 to 1991, a factor which could possibly be attributed to topic differences. Researchers Ruth and Murphy (1988, 1-16), for example, have shown the importance that topic variations may have on student performance. (Certainly, the eloquence Kimberly displayed in her first essay when she wrote about her bedroom in her home now being sold was never rivaled by her writings on subsequent, more neutral or more analytic topics.) While Dorothy and Kimberly continued to obtain the highest scores of the group, it is interesting to note that their final scores reflected a clear drop from their initial ones; whether the drop was due to a variable such as topic difference or to the fact that they did not have the same amount of directed instruction in writing as the other students did cannot be ascertained.

Figure 1
Holistic Score Results



Results of Analytic Scoring

The essays were also analytically scored on a four-point scale by four other writing instructors experienced in both analytic and holistic scoring. The instructors used a scoring guide that addressed rhetorical elements of thesis, organization, development, content and diction, and grammatical elements of sentence style, sentence structure, usage, and mechanics. A copy of the scoring guide is attached.

Prior to the actual scoring, the instructors met for a training session in which everyone independently scored two essays written by earlier participants in the longitudinal study. A discussion followed the training papers until elements in the guide were clarified and everyone felt comfortable with the scoring criteria.

Each paper was analytically scored at random by two readers, each of whom used a separate guide. The students' names were covered. The scores of the two readers were summed for a total of 8 possible points per category per paper or 80 points per paper. (Splits or nonadjacent scores given by two readers occurred in 7 or 2.9% of the 240 entries). Total analytic scores are given in Table 4.

Table 4
Analytic Scores of Essays

	1989	1990	1991	1992
Willie	49	42	49	58
Ella	49	55	50	59
Jackie	42	68	62	53
Pauline	39	57	43	55
Dorothy	54	57	50	56
Kimberly	56	61	57	61

As also revealed in the holistic scoring, the analytic scores indicated that improvement was not linear; there was no steady progression of analytic scores for any student. Nevertheless, all students showed an improvement in total analytic scores from the first paper in 1989 to the last paper in 1992. For the four students who took the developmental writing course(s), the improvement was more substantial, ranging from 9 to 16 points; for the two students who had been screened out, the improvement ranged from 2 to 5 points.

As shown in Table 5, in several areas the improvement was especially noticeable: All four students who took the developmental sequence improved in the writing of a thesis statement (a skill emphasized in the course); the two students screened out showed no improvement in that skill. Similarly, all stu-

dents but Dorothy improved in writing with sentence variety. Development, word choice, and control of mechanics were also areas in which most of the students progressed.

Table 5
Comparative Performance of Students on Individual Areas
Between Essay 1 (1989) and Essay 4 (1992)

	Willie	Ella	Jackie	Pauline	Dorothy	Kimberly
Thesis	+	+	+	+	/	/
Organization	+	/	+	/	-	+
Focus/Coherence	+	/	+	+	/	/
Development	+	+	/	+	+	+
Content	/	/	-	+	/	+
Word Choice	/	+	+	+	+	-
Sentence Variation	+	+	+	+	-	+
Control of Sentence Structure	+	+	/	+	/	+
Control of Usage	/	+	+	+	/	/
Control of Mechanics and Spelling	+	+	+	+	+	/

KEY: + Improvement of one or more points
 / Same rating

Questionnaire responses given by the participants in 1990 and 1991 revealed students' attitudes toward and practices with writing. All of the students noted that they had written several short papers each term, and all were experienced in writing essay exams. Everyone had been required to write at least one research paper, and both Dorothy and Pauline had been required to write one or more lab reports. Four of the students responded that they felt confident about their writing assignments either "most" of the time or "always"; only Ella answered "occasionally" for two years in a row.

In their interviews Dorothy, Kimberly, Willie, Jackie, and Ella, a special education major, all reported that they liked writing more than they did reading. Interestingly, they had come to the university with that same preference. (In fact, on writing attitude questionnaires administered during the first

summer writing class, the four students from the study enrolled in the course showed they clearly recognized the usefulness of writing, even though their apprehension about writing and their limited understanding of the writing process created barriers for them.) Ella mentioned that time constraints now prevented her from doing any writing for fun, but half of the students wrote that they used writing for personal reasons “most of the time”; the others wrote they did so at least “occasionally.” Jackie mentioned writing in diaries all the time, and Kimberly indicated that she liked to write (and receive!) letters.

Despite their growing experience and confidence in writing, students did not always follow the precepts to use prewriting strategies. They typically answered “occasionally” or “never” to the question regarding their use of prewriting methods. Revising, on the other hand, was a far more common practice, for in the 1991 questionnaire, five of the six students said they “always” revised, and Ella answered that she revised “most of the time.” They also typically responded that they began their writing assignments a week before they were due; only Jackie answered on the second questionnaire that she usually started an assignment the night before one was due. In their willingness to revise and to allow time for writing assignments, students were showing a growing maturity in meeting academic demands.

As was the case in reading, students were also showing a metacognitive awareness about their writing. Pauline, for example, expressed concern about the essay she was submitting for the last time. Although she felt her writing—despite improvement—“was still not good,” she stressed that she caught basic mistakes now that she used to make four years ago; she was, moreover, much more conscious of her words and more specific in her language. Having a choice as to topic was critical for Pauline, who commented that she was no longer scared of writing papers. She also stressed the need both for having adequate time to write and for having access to a word processor. She always used a spelling checker, and she consulted with tutors whenever necessary. Pauline, at 24 the oldest student in the study, had learned to use whatever tools were at her disposal, including the free editing service of her American boyfriend.

Willie, who believed that writing was very important and would remain so throughout his career, felt that he had improved in gaining “flow” with his papers and in learning how

to construct sentences. He noted that he had also learned how to get started and how to express what he wanted to say.

Dorothy, too, felt that her writing had improved, even though she had been strong enough as a beginning writer to be exempted from the developmental course. Despite receiving one "C" in a "Writing for Literature" class (a grade she attributed to her instructor's lack of familiarity with African American culture), she did not let her confidence in her own ability waver, and she continued to take creative writing and poetry courses. Thus, several students showed a growing awareness of their own writing weaknesses and strengths.

Certainly, the depth of their metacognition should not be exaggerated. Flower, for example, in her exploration of the different interpretations students made of an academic assignment, distinguishes between various levels of process self-awareness: the basic level, in which certain strategies are used; an intermediate level in which students "*monitor their own process* [sic], noticing what they are thinking, what they have done so far, reflecting on whether it is working, or simply musing on their own experience"; and a more advanced metacognitive stage, "when the writer can rise to conscious problem-solving and use this awareness to actually guide the process of reading and writing" (1987, 28). Such overall, "active metacognition," according to Flower, seemed absent even from the upperclassmen and graduate students in her own study. The students in this study, while perhaps only straddling the area between basic and intermediate metacognition, nevertheless seemed more aware than in their freshman year of what they needed to do in terms of their own reading and writing strategies to succeed.

Students' Performance in Other Areas

At the time of the interviews, all six had successfully passed the state-mandated competency test CLAST. Three of the students had succeeded at passing all four subsets of CLAST (essay, English Language Skills, reading, and math) the first time. Jackie had retaken the reading subset once, and Kimberly noted that she had found the math subset difficult. Pauline, who failed the essay subset several times, had been required to do additional, individualized study in our Reading and Writing Center to improve her skills. By the time this study was concluded, all six had eliminated the CLAST as a potential roadblock to their future graduation.

In addition to meeting academic requirements, the six had become part of the university community in other senses as well. Each one participated to some extent in extracurricular activities. Jackie, for example, belonged to the Jewels of TAU, a predominantly African American service organization on campus, and Ella did some occasional tutoring with troubled children. Pauline, whose athletic commitments took much of her time, performed some volunteer work one term in a juvenile detention center. Kimberly taught Sunday School, while Willie participated for one year in marching band until he withdrew because of the time involved. Now he, as well as Kimberly, belonged to the Minority Business Society. Dorothy, one of the most active, was a "little sister" to a fraternity and sang in a gospel choir; she also belonged to the Black Student Union and to the Association of Black Communicators. These students' work on behalf of others and their involvement in campus organizations were—on a large, predominantly white campus—significant in what it conveyed about their participation in the university community.

Most of the students worked as well, either on campus or in part-time jobs in the town. As Ella noted, school and work, took up most of her time. Dorothy acknowledged that her job made her schoolwork harder, but she also laughingly pointed out that it prevented her from procrastinating. (Indeed, the restrictive nature of these students' schedules was corroborated by their questionnaire responses that they typically watched television an hour or less a day.) Hence, the improvement that the six students made in reading and writing and their success in school must be understood in a larger context—namely, that these students' schedules were *full*.

Students' Perceptions of the Program

During the interviews I asked the students how they perceived our reading and writing program. Because the developmental courses are required of those special admission students whose placement tests do not screen them out, students sometimes resent having to take the classes. Dorothy, for example, admitted frankly that she had been "very upset" at having to take two semesters of reading. However, looking back retrospectively over a three-year span, students depicted the program in rather positive terms. Dorothy and Kimberly, for instance, who had taken only the reading courses, admitted the classes had helped: for Kimberly it was with her difficult subjects, such as

biology; for Dorothy the help was in terms of broadening her whole vocabulary. While acknowledging the overall helpfulness of the program, Dorothy perceptively pointed to the need for a stronger reading text that would include more open-ended exercises—a change that had already been made for the very reason she cited.

The other four students offered the broader perspective that came from their participation in both the reading and writing classes. Jackie, for example, said that the classes had been helpful and that it was good to come to the university early; doing so, she said, had been a definite *plus* in helping her to get prepared. Ella, who remained the quietest of all the students during the interviews, said that the courses had helped, that the “whole thing” had been good, and that she still referred to the booklets from those classes. In particular, she stressed the patience and understanding of the reading instructor she had had during the Fall semester. Pauline believed that the reading course was better than the writing course, which she criticized for not emphasizing grammar as much as was necessary. However, she conceded that if the program had not been available, she would have been struggling, and she noted that the writing instructors to whom she often talked after class had helped a lot. The personal part was important for Willie also, who said that because of the small classes, he had been able to pay attention. Instead of being just a “spot in a class of 300,” he could get to know the students and “be into what’s happening.” He stressed liking to learn how to read for a purpose and how to get started in writing, and he emphasized how important reading and writing skills are during students’ first two years of college, when “that is all they do.”

Conclusion

The conclusions to be drawn from this study must be very tentative, as the small number of participants and the large number of variables involved preclude any truly significant findings, statistical or otherwise.

On the whole, several students did show improvement in both their reading and writing skills as reflected in the measures used in this study. The improvement was neither dramatic nor linear inasmuch as fluctuations occurred during the intervening years. The cause of these fluctuations is unknown. In the case of the essay, they may be due to topic or scorer variables, and in the case of reading, they may be due to a

different test form. Alternately, they may be attributable to students' increased willingness to take risks in their writing, or they may simply be due to students' test-taking attitudes on a given day. At any rate, improvement in reading did occur for most of the participants from the first year to the last. Interestingly, the students who were required to take the developmental writing courses showed more improvement in writing than did the two students who were screened out.

Certainly, the improvement cannot be attributed solely to the reading and writing courses, for the six students had taken—or were still taking, as in the case of Kimberly's "Writing About Film" class—courses that required extensive reading and writing. But the developmental reading and writing program did appear to provide a useful foundation for these students that enabled them to make the transition from high school to college. Perhaps it gave students both a framework for understanding the conventions and the future expectations of their new academic community and a framework of processes, skills, and strategies they could—when necessary—lean back upon. Thus, Ella continued to refer to the booklets from those courses and Kimberly, when desperate, resorted successfully to the reading strategies she once had been taught in the developmental course.

In this respect, the metaphor of scaffolding that Brown and Campione use seems appropriate. The metaphor conveys a positive connotation in that scaffolds are usually needed—just for a short time—when construction is underway. The scaffold image is positive, too, in what it perhaps implies about instruction—that as teachers we are open to growing and adapting our teaching styles in order to, as Mina Shaughnessy noted in her pivotal study of basic writers, understand not only our students' problems but also their potential for success (1977, 290-94).

Whatever the role our developmental program might have played, these six students showed through their poised responses at the interviews that they have become a true part of the academic community. They remain optimistic about the future, as illustrated through Jackie's dream of going to law school; at the same time, they are realistic about the work ahead, as shown through Kimberly's concern about the prerequisites still facing her in the new major she is taking. They came in at risk, but they have achieved. For them the possibility of actually graduating from the university is very real.

ADDENDUM

As an addendum, I have included some different steps I might undertake if I were to do a longitudinal study again. My main problems stemmed from the decreasing number of participants and from the lack of clearcut data that resulted. Because the honoraria alone did not work as an incentive to bring students back year after year (and because I never would be able to increase the honoraria beyond the \$25 or \$35 amount provided each student annually), I would try instead randomly to establish personal contact with at least some of the participants early in the study. These students would form the focal group of my research, and with them, I would employ procedures that resemble those used by Sally Barr Reagan in her article "Warning! Basic Writers at Risk: The Case of Javier." I would, for example, conduct yearly interviews with the focal group rather than administering to those students the questionnaires I gave the other participants.

Modifying other measures would strengthen the study as well. For example, rather than relying solely on in-class, impromptu essays as a direct measure of students' writing, I would add cumulative portfolios that spanned the students' four years and contained actual work that was meaningful to them. Although, as Despain and Hilgers and as Hamp-Lyons and Condon have pointed out, such nonuniform portfolios might present scoring difficulties, the portfolios would reduce the emphasis on testing that my current measures entailed. Furthermore, because having just one standardized reading test was inadequate, I would employ more than one reading measure. Requiring students to respond in writing to a specific reading passage would surely provide more useful information about students' actual reading and writing skills than standardized measures alone can.

None of these changes would necessarily eliminate the problems I encountered with my first longitudinal study. However, the changes might mean that students would feel more positive about their participation in the study and hence continue to return. Furthermore, if much of the data collected were based on students' actual college work, the results might reflect more accurately than artificial measures ever could the progress and growth students truly experience during their four years at college.

INTERVIEW GUIDE

1. What is your major?
2. Have you been required to do much reading as part of your major?
3. Have you been required to write many papers for your major?
4. Have you had to do much reading or writing for courses NOT connected to your major?
5. Do you feel the structured course in the reading lab helped you to get off to a good start freshman year?
6. Do you feel the structured course in the writing lab helped you to get off to a good start freshman year?
7. What one thing sticks out in your mind about the reading and writing classes you took freshman year?
8. Looking back as an upperclassman, can you make any suggestions about how to improve these courses?
9. Did you experience any trouble in passing the reading or writing subsets of CLAST?
10. Do you feel your reading and writing skills have improved during your years here?
11. Has your attitude toward reading and writing changed at all?
12. Do you anticipate having to do much reading or writing in your field after graduation?
13. Have you participated in extracurricular activities on campus?
14. Have you worked at a job during your time here?
15. Do you enjoy reading for pleasure? Writing for pleasure?

Name: _____ Age: _____

Expected Major: _____

Prerequisite courses _____
you have taken
toward your major: _____

Average amount of reading your college courses combined typically require:

Less than 3 chapters a week	4-7 chapters a week	8-10 chapters a week	12 or more chapters a week
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Type of writing assignments you completed Spring, 1990 term:

Lab Reports	Research Papers	Essay Exams	Short Papers
Approximate Number _____	Approximate Number _____	Approximate Number _____	Approximate Number _____

For what courses have these writing assignments been done?

Type of writing assignments you completed Summer, 1990 term:

Lab Reports	Research Papers	Essay Exams	Short Papers
Approximate Number _____	Approximate Number _____	Approximate Number _____	Approximate Number _____

For what courses have these writing assignments been done?

Type of writing assignments you completed Fall, 1990 term:

Lab Reports	Research Papers	Essay Exams	Short Papers
Approximate Number _____	Approximate Number _____	Approximate Number _____	Approximate Number _____

For what courses have these writing assignments been done?

Are there any CLAST subsets you have left to take or retake. If so, please list.

	Always	Most of the Time	Occasionally	Practically Never
1. How often do you use writing now for personal reasons (i.e. letters)?				
2. Do you generally feel more confident now about starting each writing assignment for college classes than when you first began college?				
3. How often do you practice pre-writing strategies (such as clustering or brainstorming) before you undertake your writing assignments?				
4. How often do you revise your papers written outside class before you turn them in?				
5. How often do you apply any special reading strategies you learned [such as SQ3R (survey, question, read, review, recite)] to your reading assignments?				
6. How often do you preview the chapters and ask questions in your own mind before you begin to read assignments?				
7. Do you generally feel confident about distinguishing the main idea from supporting material in most of your reading selections?				
8. Must you make a special effort to learn the terminology of your courses or your major field?				
9. How often do you have trouble remembering important information or ideas for tests?				
10. How often do you have trouble relating class lectures to reading assignments?				
11. How often do you have trouble understanding your assignments?				
12. How often do you have trouble writing about your reading?				

Always
Most of the Time
Occasionally
Practically Never

13. How often do you do any reading for personal pleasure? (If so, please list types.) Examples: magazines, leisure novels, newspapers, etc.

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14. If you find a passage difficult to read - perhaps because you have to read it too quickly or your mind has wandered - what do you do?

15. How far ahead do you typically begin your writing assignments? (Please circle answer.)

The day
it is due

The night before
it is due

A week before
it is due

When it is
assigned

16. Do you have any writing skills that you feel need improving?
If so, what are they?

17. How often do you watch television? (Please circle answer.)

Two hours or
more daily

One hour or
less daily

Only on
weekends

Almost
never

18. What extra curricular or social activities do you particularly enjoy?

19. If short workshops that reviewed essential writing and reading skills were to be offered once a term, would you or your friends be likely to attend?

Thank you for your help!

ESSAY TOPICS USED IN LONGITUDINAL STUDY

June 1989

TOPIC A

A possession you treasure for its personal meaning

TOPIC B

A movie or television program that really made you think

December 1989

(for those who remained in the program)

TOPIC C

Items you would want to have if you were stranded on a desert island.

TOPIC D

A lesson you learned from an experience you had or an activity you participated in

November 1990

TOPIC E

An event or activity on the campus (or in your home community) that has had a widespread impact

TOPIC F

An important decision that you made

November 1991

TOPIC G

A person in public life about whom many people have strong feelings

TOPIC H

A beneficial change in your education that could be made at this university

November 1992

TOPIC I

An entertainment personality who presents a good or poor role model

TOPIC J

A social or political issue now in the news about which many people have strong feelings

	Very Much So (4)	To an Adequate Extent (3)	To Some Degree (2)	Not Very Much (1)
1) The paper has a strong thesis—either stated or implied				
2) The paper seems organized, and paragraphing is satisfactory.				
3) The paper seems focused and coherent.				
4) The paper is developed with specific examples, details, or illustrations.				
5) The ideas are thoughtful.				
6) The word choice is appropriate.				
7) The sentence style is clear and varied.				
8) There is control of sentence structure (in that fragments, run-ons, and tangled syntax are avoided).				
9) The paper reflects control of usage (in that subject/verb agreement, pronoun,tense, and dialect errors are avoided).				
10) The paper reflects overall control of punctuation and spelling.				

Note

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