Evaluating IIMPaC: Teacher and Student Outcomes Through a Professional Development Program in the Teaching of Writing

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Executive Summary

This study examined the effects of a professional development program, IIMPaC, which focused on the teaching of writing. IIMPaC is an acronym for five elements of the program's professional development: inquiry, inservice workshops, models, practice, and coaching. IIMPaC has operated for five years in partnership with low-performing schools that serve low-income populations with a substantial proportion of English language learners.

The study focuses on eight language arts teachers of grades 4–8 and the students in their classes, from four elementary and middle schools that participated in IIMPaC. Seven matched teachers and their students provide comparison data. Measures used to assess the effects of participation in IIMPaC on teachers' classroom practices included interviews, classroom observations, and collections of teacher and student work. The program's impact on students' writing performance was measured by timed writing prompts drawn from an established archive of writing assessments, administered in a pre/post fashion and independently scored at a national conference.

The study found several clear differences between the practices of program and comparison teachers. Although program and comparison teachers both taught their students strategies for preparing to write, program teachers more frequently showed them student-written models of writing, gave them more opportunity to develop their own writing topics, and employed a broader range of prewriting strategies. Program teachers also encouraged students to develop their ideas by revising their writing more substantially, and found ways to engage students more deeply in writing as a process of communication, including discussing their writing with other students and collecting their work in portfolios. Program students' writing performance improved more than comparison students' when measured holistically, as well as on all six of the analytic measures; however, the differences between the two groups were not large enough to be statistically significant, perhaps largely due to the general sophistication of the comparison teachers as well as the relatively high achievement of the comparison students at the outset of the study. In addition, program students increased their use of prewriting strategies, such as prewriting and annotating a text, to a statistically significant degree when compared with comparison students; annotating a text was found to affect student writing scores to a statistically significant degree.

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INTRODUCTION

This study documents the effects of a professional development program conducted by the South Coast Writing Project (SCWriP) of the Gevirtz Graduate School of Education at the University of California, Santa Barbara (UCSB). SCWriP has conducted this particular program for five years in selected low-performing elementary and middle schools. All of these schools are in low-income neighborhoods and consist largely of students whose home language is Spanish. A significant number of the students in these schools are children of migrant farm workers who themselves had minimal formal schooling. SCWriP aims to help teachers become more professionally sophisticated about the features of academic reading and writing, and in turn implement instructional practices that can nurture academic literacy.

The South Coast Writing Project seeks to enact these changes in teacher attitudes, professional knowledge, and classroom performance through a professional development program called IIMPaC—an acronym for inquiry, inservice workshops, models, practice, and coaching. This inservice program, based on the National Writing Project model for teacher development, offers teachers opportunities to experience the same collegiality, sense of professionalism, and growth in their own literacy skills that are afforded to participants in SCWriP's Summer Invitational Institutes but are rarely available to teachers in inservice programs during the school year.

Research on teachers' professional development indicates the importance of intensive, sustained, school-based programs if teachers are to adopt new practices and refine existing ones in a significant way. Yet programs involving classroom release time and one-on-one coaching are costly; schools and districts under financial pressure and pressure to increase student achievement need some assurance that the programs they invest in will be effective.

Thus in the 2003–2004 academic year, SCWriP undertook a study evaluating the IIMPaC program, under the auspices of the National Writing Project's Local Sites Research Initiative (LSRI). That study demonstrated that in comparison to teachers who did not participate in IIMPaC, teachers in our program were more likely to have

- developed more positive professional attitudes, and employed a greater number of exemplary teaching practices
- developed more advanced expectations for their students
- demonstrated a more sophisticated understanding of the intellectual and social features of academic discourse.

Yet the 2003–2004 assessment yielded less conclusive results about student writing: no significant differences were found between program and comparison groups on pre/post writing samples or in apprehension about writing.

The present research, conducted during the 2004–2005 academic year, was designed to evaluate further the effects of IIMPaC on the classroom practices of participating teachers, and the performance of their students in academic literacy. Methodologically this study builds on last

year's evaluation in a number of ways. The data collection and analysis instruments were modified to more directly assess anticipated outcomes. Groups were significantly enlarged to include 393 students in 14 classrooms. Writing assessments were administered at times that were more appropriate to the research questions and the school calendar. Finally, researchers collected additional qualitative evidence related to classroom practice.

Further, in 2004–05 the IIMPaC program responded to the results of the earlier study. For example, program planners developed more explicit goals for workshops and demonstration lessons, to ensure that inservice offerings matched stated goals for teacher and student growth. Additionally, IIMPaC workshops included more explicit guidance for teachers to ensure that our goals for teacher reflection were more transparent. In brief, IIMPaC has embraced evaluation activities not only as summative assessments for accountability to stakeholders, but also as formative assessments to inform our work with teachers. The present study seeks to provide useful information for both those purposes.

PROGRAM DESCRIPTION

Program Context and Participant Demographics

The South Coast Writing Project, situated at UCSB, has conducted staff development programs for K–12 schools for 27 years in a two-county service area with a population of roughly one million people. This region, stretching 200 miles from the northern border of Santa Barbara County down to the southern border of Ventura County at the Los Angeles County line, includes agricultural and ranching communities with large numbers of migrant laborers and farm workers; a number of wealthy suburban communities; and several small cities, including Santa Barbara, Santa Maria, Ventura, and Oxnard. Approximately 50% of all children in schools within the two-county region are eligible for the federal free-lunch program. Approximately 50% of the children in public schools in the cities and in the rural communities are Mexican American.

In recent years, in response to increasingly intense demands for the improvement of student achievement on district and state assessments and other forms of high-stakes testing, schools in our region have been particularly receptive to proposals for staff-development programs that hold some promise of improving instruction and student performance in the crucial testing areas of reading and writing. SCWriP's IIMPaC program speaks to those needs by making a long-term learning commitment at a single school site or within a consortium of schools, where a group of teachers volunteer to reflect on their own teaching practices and experiment with alternative practices supported by expert practitioners and by current theory and research.

Program Components

The program components, reflected in the acronym IIMPaC (inquiry, inservice workshops, models, practice, and coaching), are described below:

Inservice workshops

Participating teachers attend three full-day workshops conducted by teams of veteran teachers who are expert practitioners and teacher-consultants of the South Coast Writing Project. These

¹ In the 2003–2004 study, the eight classrooms actually contained a total of 385 students, but a sample of only 58 students was used for the analysis of student writing samples. In the current study, all students were included in the analysis of writing samples.

teacher-consultants, who come from similar schools and grade levels as the participants, share classroom-tested practices and strategies, supported by research and theory in the teaching of academic reading and writing. The workshops also involve teachers in academic discourse practices (reading, discussion, and reflective writing)—an important feature given that these are the very activities in which teachers ask students to engage. The workshops cover a range of topics: building fluency and community, revision strategies, writing to learn, developing the link between assessment and instruction, and reading strategies. Workshops reflect an ongoing concern for incorporating technology into teaching and for the teacher as writer. (For a more complete description of inservice session topics and activities, see appendix A1.)

Inquiry groups

Four times per academic year, teachers participate in inquiry groups consisting of 5 to 7 teachers at the same school who meet for up to 1.5 hours per session. Through these site-based inquiry groups, which support teacher research with a focus on looking at student work, IIMPaC seeks to transform the culture of participating schools as professional communities. The groups emphasize collaboration, reflective practice, and exemplary lessons designed by teachers to serve the needs of their own students. Specific topics vary according to the concerns of particular teachers; they are typically either responses to demonstration lessons (see "Coaching and classroom demonstrations" below), follow-up discussions on inservice workshops (see "Inservice workshops" above), or analyses of student writing.

Models

Modeling occurs in the IIMPaC program in several ways. When school resources permit, participating teachers have the opportunity to travel to other schools in the South Coast region—and to visit classrooms within their own schools—twice during the school year to observe experienced, exemplary teachers of reading and writing who are employing strategies introduced in IIMPaC. Modeling is also emphasized through an intensive program of coaching (see below) and through presentations at inservice workshops. At every level of the IIMPaC program, program leaders not only talk about best practices, but also show how they can be implemented and facilitate discussion about what aspects of a modeled strategy are integral to its use and what aspects can be changed as classroom circumstances change.

Practice

Participating teachers are expected to systematically employ the strategies introduced in inservice workshops, as well as the teaching approaches they have discussed in workshops and inquiry groups, in their own classrooms. They then reflect on their teaching in teacher research logs and in discussions at inquiry-group and workshop meetings, to ensure that they not only adopt the strategies, but also understand them well enough to build on them creatively in the future.

Coaching and classroom demonstrations

Teacher-consultants present four to five days of one- to two-hour demonstration lessons in the classrooms of each participating teacher, giving teachers the opportunity to observe their own students engaged in the strategies presented in the three all-day workshops. (For a menu of frequently requested demonstration lessons, see appendix A2.)

Through these five interrelated and mutually reinforcing activities, IIMPaC seeks to transform the culture of schools, increase the expertise and professionalism of teachers, and improve the academic literacy skills of students. (For a full statement of program goals, see appendix A3).

AIMS OF THE RESEARCH PROJECT

This research project was designed to assess the effects of participation in IIMPaC on the classroom practices of teachers and the academic literacy skills and attitudes toward writing of their students. Our study therefore addresses two major questions:

- 1. What are the effects of IIMPaC participation upon teachers' classroom practice?
- 2. What are the immediate impacts of a teacher's IIMPAC participation on students?

We expected that IIMPaC teachers would have considered the rationale for and implications of their practices through the discussion facilitated in inquiry sessions, and that they would have enlarged their repertoire of teaching practices related to writing by incorporating the strategies presented in inservice sessions and coaches' demonstration lessons. We expected their classrooms to be communities that supported writing for a variety of purposes and in a variety of genres that will be required of students as they move through the upper grades, college, and the working world. Finally, we expected that students in program teachers' classrooms would also show improvements in writing achievement and confidence.

Outcomes for Teachers

Specifically, given the IIMPaC program's objectives (appendix A3) and content (appendices A1–A2), the following teacher outcomes were anticipated:

- Teachers will improve lesson design and classroom practices (e.g., practices presented in appendix A2).
- Teachers will foster a classroom culture and community conducive to growth in writing.
- Teachers will increase students' opportunities to use writing for a variety of purposes, including
 - o Thinking and learning
 - o Expression
 - o Reflection and processing
 - o Social and personal purposes.
- Teachers will increase students' writing for a variety of audiences.
- Teachers will develop awareness of the features of various written genres and the relationship between those features and the rhetorical circumstances in which writing occurs inside and outside of schools.

Outcomes for Students

The anticipated outcome for students was

- Students' writing will improve along six traits:
 - o ideas
 - o organization
 - o voice
 - o word choice
 - sentence fluency
 - o conventions.

RESEARCH DESIGN AND METHODS

Overall Research Design

The study employed a quasi-experimental design. Teachers participating in the IIMPaC program and their students were matched at the classroom level with comparison teachers and their students. Comparison teachers were chosen on the basis of similarity of experience level and the demographic similarity of their schools. Differences in classroom practices were measured using three forms of qualitative data: teacher interviews, classroom observations, and collections of classroom artifacts. Student outcomes were measured using pre/post prompted writing and an attitude survey.

Sample

This research involved 15 teachers of grades 4–8, along with 20–30 students each. Teachers volunteered to participate in the study and received modest stipends to compensate them for their time and effort. Eight of the teachers (hereafter referred to as the program group) participated in the IIMPaC program during 2004–05. Seven comparison teachers and their classrooms were drawn from schools that were similar in the areas of student achievement, socioeconomic status, ethnicity, and English language status of students. Student achievement—as expressed through Academic Performance Index (API) scores—was the first and most important criterion. Using publicly available data from the California Department of Education website, we identified all schools that closely matched our program schools. After eliminating schools where we had conducted inservice programs in recent years, we developed a list of teachers who taught similar academic levels, grade levels, and subjects as our program teachers. We recruited seven comparison teachers to participate in the research. Table 1 shows the characteristics (based on 2003–2004 data) of the schools from which we drew both program and comparison groups.

Table 1 School Characteristics 2003–2004²

	Prog. School	Comp. school
API ³ mean score	607.8	626
F/R lunch (%)	76.32	66.5
Race/Ethnicity (%):		
African American	1.12	2.33
Amer. Ind. /Alaskan Native	0.72	0.53
Asian	0.5	1.17
Filipino/Filipina	1.66	1.5
Hispanic	88.06	83.57
Pac Islander	0.16	0.83
White	6.96	9.83
English language learners (%)	52.08	30.03
School size (number of students)	836.25	464.5

As table 1 shows, a majority of the students in all schools were eligible to receive free or reduced-price lunches, which generally indicates low socioeconomic status. The schools also had an overwhelming majority of Hispanic students, and, with the exception of one comparison school (in which one teacher participated in the study), approximately half of these schools' populations were English language learners. Yet the table also shows that the match between program and comparison groups was not exact: overall, API scores were higher in the comparison group, and percentages of students who were English language learners and students who received free or reduced-price lunch were lower. This mismatch between school characteristics is a result of the fact that program schools are, by definition, the lowest-performing schools in our service area.

As is expected in a study of this scope, some attrition did occur. One comparison teacher withdrew from the study, and another comparison teacher did not complete all data collection activities with her students. This attrition resulted in a total teacher sample of 8 program and 7 comparison teachers, and a student sample of 149 program students and 74 comparison students.

³ The API score is an index that uses a scale from 200 to 1000 to indicate a school's achievement level, primarily composed of standardized test scores. According to the California Department of Education, "The Academic Performance Index (API) is the cornerstone of California's Public Schools Accountability Act of 1999 (PSAA). The purpose of the API is to measure the academic performance and growth of schools. It is a numeric index (or scale) that ranges from a low of 200 to a high of 1000. A school's score on the API is an indicator of a school's performance level. The statewide API performance target for all schools is 800. A school's growth is measured by how well it is moving toward or past that goal. A school's base year API is subtracted from its growth API to determine how much the school improved in a year" (source: http://www.cde.ca.gov/ta/ac/ap/apidescription.asp).

² Source: http://data1.cde.ca.gov/dataquest/

Data Collection

Data were collected from several sources, as shown in table 2 below.

Table 2
Data Collected

Research question	Data source	Time 1 (fall 2004)	Time 2 (spring 2005)
1. What are the outcomes of	Teacher	Program teachers n=7	Program teachers n=8
IIMPaC participation for teachers' classroom practice?	interview	Comparison Teachers n=7	Comparison Teachers n=6
1. What are the outcomes of	Classroom	Program teachers n=7	Program teachers n=8
IIMPaC participation for teachers' classroom practice?	observation	Comparison Teachers n=6	Comparison Teachers n=6
1. What are the outcomes of	Collection of	Program teachers n=4	Program teachers n=5
IIMPaC participation for teachers' classroom practice?	documents	Comparison Teachers n=3	Comparison teachers n=5
2. What is the immediate impact of a teacher's IIMPaC participation on students?			
2. What is the immediate impact	Student writing	Program students n=149	Program students n=149
of a teacher's IIMPaC	in response to	Comparison students $n = 74$	Comparison students n=74
participation on students?	prompt		

In order to understand the effects of IIMPaC participation on teachers' classroom practice, we collected data through classroom observations, interviews with teachers, and collections of teaching materials and student work. Taken together, these sources provided information on teachers' planning and practices along with their rationales for and reflections on those practices.

Teacher interviews

Teachers were interviewed in fall 2004 and again in spring 2005. The protocol used in initial interviews focused on professional development experiences, the extent to which those experiences had affected teaching (if at all), and classroom strategies related to writing instruction (appendix B1). Follow-up interviews (appendix B2) focused on teachers' thinking behind classroom practices and assignments we had observed or collected.

Classroom observation

Teachers were observed once in fall 2004 and again in spring 2005. The observations focused on the resources available to students in the classroom, and teachers' classroom practices in the teaching of writing. Observations were designed to explore not only the extent to which teachers in the IIMPaC program took up the specific strategies they had experienced in the program, but also the way they contextualized and framed writing.

Researchers observed classrooms on a date selected by the teacher, the only stipulation being that the observer have the opportunity to see a writing-related lesson. Fieldworkers kept a running record as they observed the class (appendix B3). They then prepared an analytic report addressing each of the above concerns in more depth (appendix B4).

The interviews and classroom observations were conducted by doctoral students in education. A six-hour training session focused on eliciting low-inference descriptions, writing field notes, and learning interview strategies. Fieldworkers engaged in practice observations using a videotape, practiced interviews using peer role-playing, and practiced writing reports as a group, so that reports would be consistent across researchers and across the two time periods.

Collection of documents

Direct observations of classroom practice were supplemented with collections of classroom documents. These portfolios, designed to reflect teachers' instructional support for and students' implementation of skills such as planning and revision, included either five days' worth of classroom documents related to writing (collected in fall 2004) or any one writing assignment (collected in spring 2005), along with any and all supporting documents (such as teacher lesson plans, handouts, or rubrics). They also included all the written work during that five-day period (in the fall) or in response to that assignment (in the spring) produced by at least three students, whom the teacher had selected using the criteria of one high-achieving student, one average-achieving student, and one lower-achieving student. Student samples included answers to classroom exercises, final copies of writing assignments, and rough drafts if such drafts had been assigned.

Student on-demand, timed writing samples

Student writing performance was assessed through repeated measurement using on-demand writing exercises, scheduled at the beginning and end of the school year. Premeasures were taken in October and November and the postmeasures in April. Task selection and administration were determined locally. To ensure technical rigor and credibility, scoring and data processing were conducted nationally and independently of the local site. See appendix B5 for the prompt and instructions.

Data Analysis

Qualitative analysis

To investigate the effects of IIMPaC on teachers' practice, a research team of doctoral students in education along with two SCWriP co-directors together analyzed qualitative data. In a series of analysis meetings, each teacher's observation and interview data was presented by the fieldworker who had collected the data, without reference to name, school, or program/comparison group status. Teams of three to four researchers heard these presentations and made notes (using the form found in appendix B6) with regard to the study's focus areas. The teams then discussed their understandings of the data with regard to a list of possible indicators for each focus area (specific indicators included, for example, observable practices such as showing samples before students write or posting student work on the walls). Finally, the team rated the strength of the evidence for each indicator, using the rubric shown in table 3 (next page).

Table 3 Rating Scheme for Qualitative Data Analysis

Strong evidence. The item is supported either by direct observation or by evidence from more than one other source.
 Some evidence. The indicator is there, but observations may be mixed or appear in one data source but not in others.
 Limited evidence. While aspects of the item are there, they seem superficial or are inconsistent with the general thrust of the evidence overall. (Example: terms are used but practices are inconsistent with the terms.)
 No evidence. Not enough evidence to inform a decision about this item.

While the indicators for which ratings were assigned reflected desired practices based on program content, these ratings were *not* ratings of a teacher's performance—a rating of 3 did not mean the teacher was a "better teacher" than one who received a rating of 2. Rather, ratings reflected an estimation of how certain the team was in the strength of the evidence that the teacher did in fact display a given indicator on a regular basis, when the teacher's practice was taken as a whole. (The complete list of indicators is included on the rating form in appendix B7.) Ratings were assigned by consensus of the small group, with each group member citing specific items from data as evidence for his or her recommendations. To ensure consistent ratings across the several meetings and small groups, periodic renorming sessions were conducted by the entire research team, and members were periodically rotated among groups.

Researchers' ratings were analyzed using t-tests to identify any significant differences between program and comparison groups in the amount and quality of evidence related to 31 classroom practices (appendix B8). For the ten indicators showing statistically significant differences in ratings between program and comparison teachers, all relevant quotes from each teacher's interview and observation notes were compiled. These data were then reanalyzed in depth to confirm the statistical ratings and identify ways in which the teachers' classroom practices differed.

Finally, the collections of classroom documents were analyzed with particular attention to the issue of revision, part of a set of secondary analyses undertaken once revision had already been identified as an area of clear difference between program and comparison teachers' practice. There are two reasons for this focus on revision: first, revision is emphasized in the program, and collections were designed to offer evidence on revision not available from the timed writing prompt. Second, revision practices are a widely noted concern in the field of composition studies, understood to be an important component in the development of writing skills over time. The entire set of collections was sorted (without regard for teachers' names or schools) into three categories: those exhibiting "considerable" evidence of revision, those exhibiting "some" evidence of revision, and those exhibiting "little" or no evidence of revision. Next, each collection was examined in detail using the guidelines shown in appendix B9.

Quantitative analysis

To answer the second research question, regarding IIMPaC's effects on students, writing samples were analyzed in several ways.

The student writing samples were among those from all five LSRI sites scored at a national conference in June 2005. Student writing was coded, with identifying information removed so that scorers could not know any specifics of the writing sample being evaluated (e.g., site of origin, group [program or comparison], or time of administration [pretest or posttest]). SCWriP papers were scored in the "middle school" group, of which 52% were scored twice so that reliability could be calculated.

The scorers participated in six hours of training at the beginning of the conference. Their scoring was calibrated to a criterion level of performance at that time, and was then recalibrated following every major break in the scoring (meals and overnight). Overall, reliabilities (measured as interrater agreement, defining agreement as two scores being identical or within one single score point of each other) ranged from 90% to 95%, with an aggregate across all scores of 92%. At the middle-school level, where the IIMPaC papers were scored, reliabilities ranged from 91% to 96%, with an aggregate across all scores of 93%. (See appendix B10 for complete analysis of the reliability of the scoring of student writing). All scores were double-entered independently and the files compared. The resolution of all discrepancies produced a highly accurate data file, which we used in our analysis.

To determine group differences in the frequency with which students used prewriting strategies and annotated the writing prompt, student writing samples were coded according to whether prewriting and annotation were evident. Next, chi-squares were calculated to determine whether students in the program and comparison groups used prewriting and/or annotation at significantly different rates. A two-way analysis of variance was then used to determine whether these differences could have contributed to differences in writing performance.

RESULTS

Classroom Practice Results

Clear differences were found between program and comparison teachers' practices in three areas: preparing students to write, developing a piece of writing, and promoting student investment in the writing process.

Preparing to write

Both program and comparison teachers taught students approaches for planning their writing. However, program teachers' approach to prewriting activities differed from their counterparts' in three ways: the range of opportunities for students to develop their own topics, the types of model writing they shared with students, and the range and adaptability of prewriting tools they shared. These practices reflect IIMPaC's emphasis on writing as a means of communication and on the importance of building students' capacity to define and develop topics and ideas in planning their writing.

Topics. Students selected their own writing topics more consistently in program classrooms than in comparison classrooms. Students in program classrooms were observed discussing and selecting from possible topics or navigating the breadth or focus of a topic. For example, one program teacher made topic selection and development an important component of a unit on research, saying, "we try to look at the possible topics because not everything is going to be easy to research. . . . we do a list of topics, and how to narrow a topic."

Model writing. Program and comparison teachers also differed in their use of model writing. While teachers in both groups occasionally showed samples, program teachers did so more consistently. Furthermore, in three of the six comparison classrooms, no samples of any kind were provided to students or mentioned in teacher interviews. When samples were provided, those used by program teachers were more often student-written or written expressly for the assignment in question, whereas comparison teachers were more likely to use professional models or models that came with the textbook. In one program classroom, for example, before students composed personification poems, the whole class together composed one, which was kept on the board as a model for students to refer to as they wrote their own.

Prewriting activities. In both program and comparison classrooms, topics were developed through prewriting activities such as brainstorming. However, differences emerged in the types of strategies used, the way these activities were presented, and the extent to which students applied the strategies in their writing. Comparison teachers' brainstorming activities relied on preprinted worksheets or lists of questions, whereas program teachers' approaches to brainstorming tended to be more flexible: while handouts such as graphic organizers were sometimes used, they were included in a list of several strategies rather than relied upon exclusively. For example, one program teacher asked the students to work in their groups for fifteen minutes to make a graphic organizer of what they were going to write, and to compose the first sentence of their essay together as a group. Later, that same teacher explicitly modeled clustering and listing as brainstorming activities and showed how to transfer material from the cluster into the poems students were composing. Quantitative analysis of student writing samples provided further evidence that program teachers taught effective strategies for preparing to write, including prompt-annotation and prewriting. Program students independently used such strategies at a significantly higher rate than comparison students (see "Student Writing" Performance" below).

These differences in approach to topics, models, and prewriting can have an important impact on students' development as writers. When students participate in the selection and development of topics, they are better able to develop ideas within the eventual product, for they have a stake in the writing's purpose. The difference we observed in the ways teachers handle the topics on which students write is important, because writers rarely find themselves writing to an entirely preset prompt. When available models of writing include not only professional examples but also locally produced examples, and examples written by students of similar age and skill level, students can more easily imagine how to craft a product incorporating similar features. Further, when students have experienced a range of prewriting strategies, in a new writing situation they can select from their toolkit of possible approaches. On the other hand, if students have practiced prewriting as the filling out of forms, they are more likely to be at a loss in new writing situations where no form is provided. By implementing strategies demonstrated in IIMPaC to frame topic development and planning for writing, program teachers supported their students in planning to write effectively on independent writing tasks and on tasks occurring outside the context of that one classroom or that one assignment.

Developing a piece of writing

Differences between the two groups of teachers were also apparent in their approach to developing a piece of writing. Teachers in both groups acknowledged the need for revision and the challenges in helping students to revise written work. For instance, teachers in both groups cited particular difficulty with finding time for revision, and noted students' reluctance to revisit

assignments that have been completed. However, the groups differed in how they met the challenges of taking a piece of writing through multiple revisions.

For the overwhelming majority of teachers in the comparison group, proofreading, rather than more substantive revising, was a central concern. Four out of six comparison teachers used the terms "revision" and "editing" interchangeably or never mentioned revision. The emphasis in all of the comparison classrooms was on preparing a draft for a reader by removing errors rather than by clarifying ideas or adding information. In contrast, in the program group students were encouraged to make substantive changes to texts and to revise their writing to be as clear and communicative as possible in addition to technically correct. One program teacher commented, "I use different methods [to teach revision]; it's the hardest thing. I especially try to reinforce the need to reread their writing. How does it sound? I try to show them that we think about what we write after we write it. I also use checklists and rubrics to help them. I also have them do pair reading of their own work. They have to learn that writing is communication; it's supposed to make sense." Strategies like these follow directly from the content of the IIMPaC program (see appendix A for examples of revision-focused lessons), which treats revision and editing as discrete activities, revision being about ideas and communication and editing being about correctness.

Direct examination of student writing confirmed that students took up the prewriting strategies presented. Collections of classroom documents, including teacher assignments and supporting materials along with three students' written work on those assignments, were analyzed for evidence of revision by students and sorted into three categories according to the degree to which evidence of revision was present. Table 4 shows how collections were sorted:

Table 4
Initial Sorting Results for the Collection of Classroom Documents

Group	Number of	Evidence of revision ⁴				
	observations	Little	Some	Considerable		
Program	9	3 (33%)	1 (11%)	5 (55%)		
Comparison	8	5 (63%)	3 (38%)			

The majority of program teachers' collections were rated as containing "considerable" evidence of student revision, while the majority of comparison teachers' collections were rated as containing "little or no" evidence of student revision (no collection from a comparison classroom was rated in the "considerable" category).

Content analysis revealed more detail about opportunities for revision and the ways those were taken up by students. Three out of the four program teachers whose collections were included in the "considerable" category included multiple drafts of student work collected over time, along with teacher comments, peer response, and/or rubrics that had been annotated by students as

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⁴ Due to rounding, percentages do not sum to 100.

guides for revision between drafts (and which clearly separated writing conventions from idea development). One program teacher, for instance, had students highlight sentences in their rough drafts that showed evidence for an idea or showed students' own ideas. This strategy, modeled in the inservice program, can help writers to see passages where further evidence is needed or where ideas are not sufficiently developed. All of these forms of feedback and reflection resulted in changes across drafts: in collections rated as showing "considerable" evidence of revision, revision was characterized by additions, subtractions, changes in word choice, changes in sentence structures to improve variety, and clarification of meaning (for example by referencing pronouns).

Promoting student investment in writing

The data revealed differences in the steps teachers took to foster students' investment in writing activities. Teachers in both groups wanted to engage students, and both program and comparison classrooms were generally positive, learning-focused places with enthusiastic teachers. In program classrooms, however, teachers specifically encouraged students to think of their writing as their own, to consider themselves as authors, and to take an active role in their own development as writers. One way program teachers did this was by giving students greater opportunity to choose their own topics, as discussed above.

Another classroom feature that reflects student investment is students talking together about a piece of writing. Teachers in both groups frequently had students work together to complete tasks. However, the nature of the collaboration was somewhat different across groups. In the four comparison classrooms where student-to-student talk was observed, the collaboration centered on prewriting, double-checking a bibliography, or completing a worksheet. In program classrooms, student-to-student talk occurred on those kinds of tasks as well, but it also played a significant role in drafting and revision. In one program classroom, students worked together throughout the process of writing a rough draft, trying out phrasings with a neighbor before writing words down on the paper. In another program class, students had designated "writing partners" with whom they conferred at every stage. A third program teacher organized stations for various stages of the writing process, where students could confer with students at a similar stage. In general, students in program classrooms were consistently expected to use one another as resources throughout the writing process, and written pieces were crafted to meet the needs of an audience of students rather than solely a teacher who would assign a grade. This reorientation of audience away from the traditional one of a single teacher/evaluator shifts writing tasks from low-investment activities (performed to meet a school requirement) to high-investment activities (performed to communicate with people in a real social context).

Finally, program classrooms differed from comparison classrooms in the way students were positioned: as writers whose goal is communication or as the completers of assignments whose goal is to get good grades. This was evidenced in two concrete classroom features: whether and how students amassed a body of written work over time, and whether and how student work was published, read aloud, or otherwise celebrated. In three out of the six comparison classrooms, student work was collected and stored in portfolios by the teacher, yet none of those teachers used the portfolios in any formal way for planning, or shared them with students or their parents. In contrast, five out of seven program teachers collected student writing in portfolios and used these for a variety of purposes: in student self-evaluation, in checking to see if students had met goals, as evidence for grades, or in student-led conferences with the teacher and parents. Hence,

students in program teachers' classrooms had opportunities to revisit their work, claim it as evidence of their growth over time, and identify issues to work on.

Student Writing Performance

Student writing performance in both program and comparison groups improved over the school year. Writing sample scores in the program group improved more than scores in the comparison group both on the holistic assessment and in the areas of ideas, organization, voice, word choice, and sentence fluency. While these positive outcomes for the program group were not large enough to be deemed statistically significant, they were consistent across all the traits measured. Table 5 displays the results of repeated measures analyses of variance for all seven scoring categories.

Table 5

Results of Repeated Measures ANOVA – Student Writing Scores

Group	Mean	Mean	F	P(F)
	Pretest	Posttest		
Program	2.90	3.13	0.02	.89
Comparison	3.10	3.20		
Program	2.97	3.28	0.86	.35
Comparison	3.22	3.33		
Program	2.77	3.03	0.37	.54
Comparison	3.07	3.16		
Program	3.15	3.33	0.00	.97
Comparison	3.28	3.37		
Program	2.89	3.10	1.42	.24
Comparison	3.15	3.16		
Program	2.92	3.07	1.91	.17
Comparison	3.16	3.09		
Program	3.08	3.16	0.17	.69
Comparison	3.25	3.22		
	Program Comparison	Program 2.90 Comparison 3.10 Program 2.97 Comparison 3.22 Program 2.77 Comparison 3.07 Program 3.15 Comparison 3.28 Program 2.89 Comparison 3.15 Program 2.89 Comparison 3.15 Program 2.92 Comparison 3.16 Program 3.08	Program 2.90 3.13 Comparison 3.10 3.20 Program 2.97 3.28 Comparison 3.22 3.33 Program 2.77 3.03 Comparison 3.07 3.16 Program 3.15 3.33 Comparison 3.28 3.37 Program 2.89 3.10 Comparison 3.15 3.16 Program 2.92 3.07 Comparison 3.16 3.09 Program 3.08 3.16	Program 2.90 3.13 0.02 Comparison 3.10 3.20 Program 2.97 3.28 0.86 Comparison 3.22 3.33 Program 2.77 3.03 0.37 Comparison 3.07 3.16 Program 3.15 3.33 0.00 Comparison 3.28 3.37 Program 2.89 3.10 1.42 Comparison 3.15 3.16 Program 2.92 3.07 1.91 Comparison 3.16 3.09 Program 3.08 3.16 0.17

Gains were greater in the program group than in the comparison group across all scoring categories; in addition, gains made by the program group markedly outpaced those of the comparison group on four traits: ideas, organization, sentence fluency, and word choice. These findings are in keeping with IIMPaC's emphases in the areas of invention and revision; as discussed under "Classroom Practice Results," students in program classes engaged in more activities that encouraged brainstorming and planning (which affect ideas and organization), more deliberately considered writing as communication with readers (which affects all of the traits, especially as students revise to make writing more effective as a communicative tool), and experienced support and mutual sharing in a community of writers (which affect fluency).

In particular, program students adopted the strategies of prompt-annotation and prewriting over the course of the year in significantly greater numbers than comparison students. Both of these practices are consistent with an approach to preparing to write that IIMPaC emphasizes: evaluating the rhetorical situation, assessing readers' needs, and planning for maximum

development of ideas and communicative effect. To determine the extent to which students adopted these practices and used them on their own, writing samples were coded according to whether students had marked or annotated the text of the prompt in any way, and whether they had engaged in any prewriting. Frequencies were then analyzed using repeated-measures analyses of variance. Table 6 shows results for marking the prompt and prewriting.

Table 6
Marking the Prompt and Prewriting

Strategy	Group	Percentage of students using strategy			F	P(F)
		Fall	Spring	Change		
Marking the prompt	Program group	16.5	34.7	+18.2	7.19	0.01
	Comparison group	1.0	3.5	+2.5		
Prewriting	Program group	21.8	54.5	+32.7	6.84	0.01
	Comparison group	27.2	32.2	+5.0		

As table 6 shows, students in program classes adopted the practices of marking the prompt and of prewriting between fall and spring in significantly greater numbers than did students in comparison classes. To determine how these differences in strategy use affected student performance outcomes, scores on all seven scoring categories were analyzed using repeated measures analyses of variance with both group membership and prewriting/marking the prompt in the spring as between-subjects factors. In other words, if students in the program group took up a strategy of marking the prompt or of prewriting during the course of the year (as evidenced in their using the strategy on the posttest), did they improve accordingly on any aspect of the writing task? Results for marking the prompt (prompt-annotation) are shown in table 7. Similar analyses were conducted for prewriting; no significant differences were found.

Table 7
Effects of Marking the Prompt on Writing Performance.

Strategy	Scoring category	F	$P(F^5)$
Marking	Holistic	4.86	0.03*
the prompt	Ideas	4.42	0.04*
	Organization	3.34	0.07**
	Voice	6.26	0.01*
	Sentence Fluency	0.31	0.58
	Word Choice	2.05	0.15
	Conventions	0.88	0.35

^{*} denotes significance at *p*<.05 level

As table 7 shows, spring scores in the program group differed significantly from scores in the comparison group when prompt annotation was taken into account. In other words, students' marking the prompt produced group effects in scores for the holistic assessment as well as the areas of ideas, organization, and voice. It is important to note that prompt-annotation, while a commonly recommended test-taking strategy, also can reflect a sophisticated set of rhetorical skills, helping students to evaluate the writing situation, anticipate readers' needs, and make appropriate choices with regard to evidence, argument (both of which affect ideas and organization), and register (a component of voice). Not only did program students take up these strategies to a greater degree than comparison students, but their use of such strategies was related to greater gains in writing scores over time in the program group than in the comparison group. Therefore, the fact that no significant differences were found between groups *overall* suggests that not enough program students took up the strategies to produce overall differences.

CONCLUSIONS/DISCUSSION

The IIMPaC program strives to engage teachers in inquiry and support them in modifying classroom practice in ways that will benefit students. This study clearly demonstrates that teachers made changes in their teaching in response to their participation in IIMPaC. Specifically, teachers who participated in IIMPaC treated writing as a process, and they did so in a considered and sophisticated way. They emphasized the development of ideas and communicative effectiveness as goals of writing, and equipped students with specific strategies (demonstrated in IIMPaC sessions) for invention and for revision. Further, this study confirms that students of program teachers took up prewriting and revision strategies more often than students of comparison teachers. Accordingly, students in program classrooms made consistently greater gains in writing over the course of the 2004–2005 school year than comparison students. The fact that those differences in gains did not meet the level of statistical significance can be explained in several possible ways. First, the program and comparison groups were not demographically identical: program schools included a higher percentage of English language learners and students on free or reduced-price lunch than comparison schools. Second,

^{**} denotes significance at p<.10 level

⁵ *F* and probability values are the *F* values and their associated probabilities that examine the significance of the 3-way interaction between time of administration, group membership, and whether the prompt was marked.

comparison group means were significantly higher than program group means at both pre and post assessments (see table 5). Since the two groups were performing at significantly different levels before the program began, it is impossible to compare them as alike in every way other than participating in our program. This concern is reflected in the matching data in table 1 as well..

This study thus illustrates a perennial challenge for researchers: finding appropriate comparison groups. In our service area it is particularly difficult, given that the IIMPaC program targets the area's lowest-performing schools. In the continuing evaluation research now underway for the academic year 2005–2006, we have taken steps to remedy this problem by drawing comparison groups from outside of our three-county area.

In a similar vein, this study illustrates the challenges for researchers of drawing comparison teachers from the same context as program teachers. We compared teachers and students in the IIMPaC program to those in the existing local context, not to an imaginary group of "pristine" teachers and students who had never thought of writing as a process. UCSB credentials the majority of public school teachers in our local area, and SCWriP heavily influences the UCSB credential program. Teachers not credentialed at USCB are likely to have received their credentials at other campuses of the University of California and at campuses of the California State University; with 17 National Writing Project sites at universities in California, many of those teachers have also encountered the ideas presented in IIMPaC. Finally, SCWriP fellows are frequent presenters at local professional development events such as conferences of the California Association of Teachers of English. In other words, the principles that inform the IIMPaC program are in wide circulation in the South Coast region.

What IIMPaC offers is sustained inquiry over several school years and repeated opportunities to experiment with practices, reflect on those experiments with colleagues, and receive coaching and feedback from teachers who are sensitive to the students and schools in this region. Despite a relatively knowledgeable comparison group, clear differences in classroom practice distinguished program teachers from comparison teachers in the areas of preparing to write, developing ideas through revision, and fostering student engagement. This suggests the importance for researchers of developing accurate measures of teacher practice that can capture subtle differences in similar approaches. The high level of expertise of the teachers in both the program and comparison groups also suggests that the IIMPaC program model can help even experienced and knowledgeable teachers improve their classroom teaching.

In turn, student performance results were also affected by the distinct set of writing skills IIMPaC emphasizes. Program students gained more than comparison students across all traits scored in the study. Gains were particularly large in the areas of ideas, organization, word choice, and sentence fluency. Those traits align with IIMPaC's emphases on invention, building fluency, and developing a piece of writing through revision. The goal of the IIMPaC program is focused intervention on a key set of skills—invention, revision, engagement—that accrue slowly. We maintain the importance of focusing on these slower-developing skills, in the interest of students' overall writing development over time.

It is thus important to note that this study measures *immediate* outcomes for students—effects on writing performance after just a few months. Writing, however, is a skill in which development

occurs incrementally over time. While gains within a single school year are important, it is also true that the influence of classroom instruction can often manifest itself over an extended period of time, ranging from weeks to months to years. Habits acquired in one classroom may move with students into future classes across subject areas, revealing their full benefit only in those later contexts.

This research has helped SCWriP to serve the needs of teachers and students in our local area with more precision; findings from the study have resulted directly in changes to the IIMPaC program. Program goals are now more explicit, and program planning is more tightly focused on building on strengths in invention, revision, and student engagement, along with enhancing program offerings in areas such as sentence fluency and editing. This study also inspired further research, including an expanded evaluation study in 23 classrooms and a smaller, qualitative study of how elementary teachers adapt classroom strategies in the teaching of writing as they move from the upper elementary grades to the primary grades. We are committed to continuing the careful use of available data and the application of research findings to make our work with teachers more effective.

Appendix A1 Program Description

<u>IIMPaC Program</u> Comprehensive School-Wide Writing Program

Collaboration between the South Coast Writing Project of the Graduate School of Education UCSB and individual schools.

School/University partnership agreement for long term in depth staff development work to continue for at least two full school years.

Monthly staff development days with in-class demonstration lessons as follow up to each workshop day. Staff development days incorporate time to investigate student work for the purpose of planning instruction.

Our goal is to provide the knowledge and strategies that will enable teachers to create a strong, consistent and comprehensive yearlong writing program in their classrooms. In the process of preparing students to perform at a higher level in written assessments, we are determined not to have them lose the awareness of writing as a tool for learning as well as a vehicle for self-expression.

The six traits and their connection to the standards are a major focus for our work. The standards and benchmarks will be addressed to help evaluate the students' progress all through the school year. Rubrics and the traits will be used as teaching tools rather than simply for assessment purposes and student samples and anchor papers will be used to guide rather than to classify.

Mini lessons and activities that demonstrate the six traits and help students identify the traits in their own work will be an integral part of each workshop. The conventions and presentation traits will be addressed with a variety of activities that integrate correct grammatical usage with meaningful communication. Sequential activities for developing basic concepts such as one paragraph, and multi paragraph essays will be shared.

Examples of typical material covered in workshops and demonstration lessons:

Writing Strategies as Fluency /Community builders – the kinds of assignments that you don't correct or grade; rough draft or prewriting kinds of work. These are to build confidence and create a writing community in the class.

- Random Autobiography- good for locating future topics to write about, modeling partner share/feedback, creating collaborative poems. Emphasizes skills of listening and speaking.
- Responding to a Visual Prompt- good confidence, motivation builder- stress awareness of details- all kids can do it. Used in all content areas. Good opportunity for introducing parts of speech, as required by standards, in an integrated, meaningful way.
- Copy Change- can be for setting, character description, word choice, sentence variety, developing similes/metaphors etc. Provides scaffolding and structure for emerging

writers, and opportunities for creative stretches for more accomplished writers. Incorporates figurative language as required by standards, in an integrated, meaningful way that engages students.

Revision Strategies – this is for rough draft work that is going to be taken to the next step, but these strategies can also be modeled as mini-lessons.

- Show not Tell- Good technique to enhance and expand writing- specific vocabulary, addresses word choice, concrete details, evidence to support statements.
- Development of Leads- strategies to engage the reader, creating the "hook"; the introduction to expository essay, narrative, persuasive, or response to literature
- Lesson on Focus- helps students to narrow topic- find the heart of their piece, identify the question for research or inquiry piece, the thesis for academic essay
- Sentence Combining- encourages use of sentence variety, in length as well as sentence construction, as required by writing standards.

Writing to Learn – these strategies incorporate the connection between reading and writing and enable students to build comprehension skills in all content material.

- Analyzing organizational text structure
- Using text features for information and understanding
- Topic search-narrowing the focus
- Recognizing writers' assumptions/point of view
- Summary structures/ deletion and substitution/think aloud
- Judging relevance of information
- Text weaving of quotations
- Paraphrasing vs. plagiarizing
- Conventions for research papers

Developing the Link Between Assessment and Instruction – The model of the Six Traits of Writing will be used as a guide for helping students develop effective self-assessment, as well as skillful revision techniques.

- Strategies for reading and responding to prompts in various genres
- Opportunities to write for a variety of audiences and purposes
- Classroom texts and materials will be used in addition to other resource models for addressing the various genres of summary of information, response to literature, persuasive essay, narrative and writing in the various content areas.

Reading Strategies – ways to use writing to increase comprehension

- Tea Party- chunking down the text- focusing attention
- Re/read strategies- Discovery poem- GIST- Think Aloud
- Talk to the Text- Quick Write/Compare-
- Getting at Main Ideas-Text Structure
- Responding to text- Lit letters. Reading like a writer

Incorporating Technology—to extend reading, writing and thinking –applies to all content areas.

Teacher as Writer – recognizes the importance of the teacher being a member of the classroom community of writers, and therefore participates in workshop writing activities. This enables teachers to teach writing from the inside out, as practitioners in the art and craft of writing. Each workshop will provide prompts and opportunities for teachers to engage in writing activities and the chance to engage in analysis of their process.

Evaluation – Surveys, interviews, and classroom observation data collected by UCSB doctoral students; student portfolio analysis and pre and post writing samples scored by members of South Coast Writing Project Evaluation Team.

Appendix A2 Examples of Demonstration Lesson Options

Writing Strategies

FLUENCY /COMMUNITY BUILDERS- the kinds of assignments that you don't correct or grade- rough draft or prewriting kinds of work. These are to build confidence/ and a writing community in the class.

- **1.Copy Change** can be for setting, character description, word choice, sentence variety, developing similes/metaphors etc.
- **2.Random Autobiography** good for locating future topics to write about, modeling partner share/feedback, creating collaborative poems.
- 3. **Responding to a Visual Prompt** good confidence, motivation builder- stress awareness of details- all kids can do it. (Harvey has special ones geared to Social Studies)

REVISION STRATEGIES – THIS IS FOR A ROUGH DRAFT THAT IS GOING TO BE TAKEN TO THE NEXT STEP, BUT THESE STRATEGIES CAN ALSO BE MODELED AS MINI-LESSONS.

- 1. **Show not Tell-** Good technique to enhance and expand writing- specific vocabulary.
- 2. **Development of Leads** strategies to engage the reader.
- 3. **Lesson on Focus** helps students to narrow topic- find the heart of their piece.
- 4. **Sentence Combining** encourages use of sentence variety.

WRITING TO LEARN

- 1. Strategies for Writing Summary- GIST
- 2. Discovery Poem
- 3. Quick Writes/Pair Share
- 4. Somebody Wanted But So
- 5. Note Taking—Extended Dialectic Journals

ACADEMIC WRITING

- 1. **Strategies for reading prompts** this can be content area classroom essay tests, or on demand writing assessments.
- 2. Use of rubrics to analyze written paragraphs- Carol Booth Olsen model
- 3. **Prewriting strategies** for academic essay writing –Expanded Dialectic Journals

READING STRATEGIES

- 1. Collaborative reading techniques- Background, Connections
- 2. Tea Party- chunking down the text- focusing attention
- 3. Re/read strategies- Discovery poem- GIST- Think Aloud
- 4. Talk to the Text- Quick Write/Compare-
- 5. Getting at Main Ideas-Text Structure
- 6. Highlighting text- reading like a writer.
- 7. Responding to text- Lit letters.

INCORPORATING TECHNOLOGY—to extend reading, writing and thinking –applies to all content areas.

Appendix A3 IIMPaC Program Goals

The goals and objectives of the IIMPaC program are diverse and ambitious. The program aims to accomplish immediate, measurable objectives with the teacher participants in the program, including the following:

IIMPaC Objectives

Increase teachers' content knowledge and improve teaching strategies to:

- Use "best practice" instructional strategies with theoretical/research basis
- Facilitate the writing process and students' development of writing skills
- Meet discipline-based standards
- Design effective lessons
- Teach academic writing
- Improve teaching strategies with ELL students
- Increase the quality/quantity of writing across the curriculum.

• Increase teachers' reflective practice:

- Increase use of case study methodologies to assess student progress
- Improve teachers' abilities to constructively respond to student work
- Improve abilities to diagnose writing and base future instruction on the analysis
- Improve teachers' abilities to understand and articulate the explicit goals of their lessons
- Increase teachers' challenging of their own thinking
- Reduce teachers' anxieties about their own writing (increase fluency, confidence, and experiences)
- Increase the opportunities for ongoing teacher learning within a professional community.

• Increase teachers' sense of professionalism and resulting responsibilities:

- Increase understanding and use of common professional vocabulary
- Increase participation in and contributions to the knowledge of the field
- Increase teachers' reflection on principles underlying their practice
- Increase teachers' abilities to contribute expertise to district policies and programs
- Increase abilities to interrogate their own practice in context of wider professional community

• Prepare and support leaders to improve classroom and mentoring strategies

- Increase opportunities for supportive teacher networks
- Enhance teachers' abilities to translate knowledge to peers
- Increase the use of technology to support the language arts

In addition, the IIMPaC program seeks, through professional development with teachers, to effect specific long-term goals regarding students' attitudes and achievement. Additional program goals include:

IIMPaC Long-Term Goals

- Increase students' abilities to use writing as a tool for:
 - Thinking and learning
 - Expression
 - Reflection and processing
 - Social and personal purposes
 - Demonstration of learning (assessment).
- Increase students' writing for a variety of purposes and to a variety of audiences
- Improve students' attitudes about using writing as a tool beyond classroom assignments

Appendix B1 Initial Teacher Interview

Professional Development Experience

- 1. What kind of district-sponsored professional development have you received related to reading and writing in the past 2 or 3 years? (*Possible prompts*: providers, topics, structure, activities—if they're in IIMPaC, we're talking about IIMPaC).
 - a. How/why did you get involved in this PD (Ex. required of all faculty, volunteered, nominated by principal, etc.)
 - b. Could you tell me about a time/give an example of how this training has influenced the way you teach writing?

(prompts)

- Your teaching strategies and skills?
- Your goals in teaching writing? The way you approach the language arts standards?
- The way you teach to the different needs and strengths of your students?
- Your attitudes and abilities regarding your own writing?
- Your confidence/comfort teaching writing?
- 2. What kind of influence, if any, has your involvement in this school- or district-provided PD had on your students' skills and achievement?
 - (*Possible prompts*: engagement, productivity, on-task behavior, attitudes, achievement, community of learners)
- 3. What component(s) of the program did you find most valuable? What component(s) of the program were least helpful?
- 4. What has been the single most significant influence on your writing instruction?

Classroom Strategies

- 5. Please describe your current goals for teaching writing to your students.
 - a. How do you set these goals?

- b. What evidence do you have that your students are/are not meeting these goals?
- 6. Please describe the different genres in which your students write.
- 7. Please describe the varieties of audiences to which your students write.
- 8. What process do you take your students through with these types of writing?
- 9. Please describe your process(es) for responding to student work.
 - a. Please give examples of the kinds of guidance and feedback you provide to your students.
- 10. How do you assist your students through the process of revision?
- 11. How does student work guide your planning for instruction?
- 12. How is student work organized or collected? (E.g., notebooks, journals, portfolios?)
- 13. Give examples of your current classroom groupings, and how you differentiate instruction within them?

Appendix B2 Follow-up Teacher Interview

1) Can you take me through a writing assignment in your class from beginning to end—what happens first, second, etc? It's best if they can take you through an assignment included in the Collection of Documents. If that's not possible, ask for a "typical" assignment.

Possible follow-up prompts:

- a. What happens after that? After that?
- b. When teacher describes giving instructions: How do you give those instructions to students? For instance, some people use the board a lot, some use a handout, etc.?
- c. *If models/example described*: where do those examples come from?
- d. What, if any, intervention are you doing in between this step and the next?
- e. What are you doing at that point?/what are the students doing at that point?
- f. What kinds of problems do students tend to have at this stage?
- g. If working from a collection: Can you show me an example of that here?
- h. What's the difference between ___ and ____? (the 1st draft and the 2nd draft, etc.) *In a collection:* Let's look at these two. What changes would you want to see between here and here? (point to passages)
- i. When some written work is described; e.g. "they brainstorm" or "they write drafts":
 - i. What do those pieces look like?
 - ii. Who reads those pieces other than the student? (ex. teacher, peer group)
 - iii. *If teacher reads them:* What are you looking for when you read those pieces?
- j. If groups are mentioned: What goes on in those groups? (Find out, for example, whether the feedback students provide is open-ended or based on a question sheet, whether it's about errors or about ideas, etc.)
- k. Probe any and all "writing process terms" such as revision, draft, peer editing, prewriting, publication etc.: "So many people use that term—I've heard such a range. I want to understand your definition. Can you explain what you mean by revision?"
- 2) What are some of the reasons you have students write in your class?

Possible follow-up prompts:

- a. If specific assignments are described instead of purposes for writing: That's such a good idea—can you say a little about why this is such a good thing to do? Or What are your reasons for choosing that kind of assignment over something else?
- b. Probe any and all common terms, such as critical thinking, creativity, higher-level thinking, writing-to-learn, etc. Not "what do you mean by that?" but I've heard so many different definitions for that term. Some people mean ---, some people mean ___. How do you use it?

- 3) For IIMPaC teachers: Are there things you are doing with writing this year that you wouldn't have done last year? It's best not to mention IIMPaC by name here! You just want descriptions of new or changed practices.
- 4) What else? Is there anything important you feel we've missed, or something I *should* have asked, but didn't?

Appendix B3 Observation Running Record

Teacher:	Date:	Time/Period:	
School:	Grade:_	Subject:	
Observer:_			
Time	Observations (Note: Mark personal notes "P	PN" and methodological notes "MN")	

Appendix B4 Observation Analytical Report

Teacher:	Date:	Time/Period:	
School:	Grade:	Subject:	
Observer:			

I. The Classroom as a Learning Space

- A. Description: Describe the classroom space in relation to the teaching and learning activities observed.
 - 1. Is there evidence that the physical layout of the classroom is flexible and adaptable to different functions and activities?
 - 2. Evidence that the workspace for the particular task(s) observed is task appropriate.
- B. Walls: How is the wall space used?
 - 1. Are samples of student writing displayed and celebrated?
 - 2. Are models for writing visible?
 - 3. Are materials posted as resources for students to consult as they compose?
 - 4. Is there any evidence that students pay attention to what is posted?
 - 5. Is there any evidence of student ownership of posted materials

C. Classroom resources: List or describe what is available for students to use to help them with their writing (dictionaries, computers, conference areas etc.)

II. The Teaching of Writing: Processes, Strategies, Concepts, Culture

- A. How is writing construed as a process?
 - 1. Is there evidence that writing is explained or framed as a process?
 - 2. Does the teacher imply that this is a one period activity that is not connected to other writing/learning/reading activities?
 - 3. Where does the writing come from (what activities does it derive from) and where does it go? What happens to it?
 - 4. Are opportunities provided for prewriting or discovering ideas? For drafting? For revision? For response? For publication? For reflection on finished pieces?
 - 5. Is adequate time provided for the completion of stages in the process?
 - 6. Is the process seen as flexible and recursive or a rigid set of steps?
- B. Instructional Content: What is Taught?
 - 1. Is the writing assignment merely assigned and graded or is there instruction?
 - 2. What is the content of the instruction?
 - 3. Is the writing process taught explicitly?
 - 4. Are any techniques for writing taught (graphic organizers, discovery techniques, outlining, tricks of the trade)?

- 5. How much relative instructional emphasis or time is given to such topics as discovering ideas (prewriting), form, correctness, grammar, genre, organization, the writing process, features of essays (topic sentences, leads), word choice, style, voice, other?
- 6. Are models of finished writing shown -- either student models or professional or other models?
- 7. Does the teacher make the assignment clear and do the students understand it? Are there opportunities to ask questions?
- 8. Are exercises provided to practice writing? What kind of exercises? (DOL, worksheets, grammar drills, sentence combining exercises, show-not-tell exercises, imitation exercises, free writing exercises, test prep drills, etc).
- 9. Are students taught to use the power of the computer for drafting, editing, formatting, and publishing?

C. Instructional Strategies: How is Writing Taught and Assessed?

- 1. Does the classroom function as a writing workshop?
- 2. Do students read and respond to each other's work in pairs or groups? Do students assist each other in any other way? When and how?
- 3. Does the teacher write with students and show her writing or discuss her process?
- 4. Does the teacher confer with students to assist them while they are writing? Who initiates writing conferences?
- 5. Are students provided with rubrics or assessment guides?
- 6. How are student papers evaluated?
- 7. Are students helped to understand the criteria used by the teacher for evaluation or are those criteria private and mysterious?
- 8. Do students save their work in portfolios? Are the portfolios evaluated?

D. The Cultural and Intellectual Context for Writing: How is Writing Used?

- 1. How is the writing task presented in its cultural and intellectual function?
- 2. Is writing seen as a creative or expressive outlet an opportunity to tell your own story
- 3. Is it seen as a help to thinking about a text or topic under discussion?
- 4. Is it framed as a response to some issue or problem in the classroom or community?
- 5. Is it framed as an exercise designed to help students learn particular skills?
- 6. Is it a busywork activity or a punishment or a "dummy run?"
- 7. Who is the audience for the assigned piece of writing?
- 8. How is the student positioned as a writer?
 - a. as an author or storyteller?
 - b. as an inquirer or thinker in an academic community?
 - c. as a reflective reader or thinker about a text or topic?,
 - d. as a participant in a game or activity with its own satisfactions?
 - e. as a student completing a writing exercise for a teacher?
 - f. something else?

Appendix B5 Student Writing Prompt

Directions:

There are good things and bad things about being a student in your grade in school. Write a letter to people who are doing research on schools, explaining both the good things and the bad things about being in your grade in school. Be sure to include supporting details.

You may use the blank space provided below in any way you wish to prepare for writing. Only what you write on the lined paper will be scored.

You will have 40 minutes to draft your letter. Be sure to plan how to use your time.

Your readers will be paying attention to what you say, the focus and organization of your writing, and how well you express yourself. Be sure to check spelling and punctuation before you finish.

Appendix B6 Analysis Form 1

Improve teachers' lesson design and classroom practices in accordance with theoretically sound practices demonstrated in the IIMPaC program
Factor a placers are sulfure and community consistent with narrow of HMDsC was grown/CCW/siD
Foster a classroom culture and community consistent with norms of IIMPaC program/SCWriP community
Increase students' opportunities (and the extent to/ways in which they take up those
opportunities) to use writing for: Thinking and learning
ExpressionReflection and processing
 Social and personal purposes Demonstration of learning (assessment)
Increase students' writing for a variety of purposes, in a variety of genres, and to a variety of
audiences
Factor positive aturdant attitudes about using writing as a tool both in and beyond alcogram
Foster positive student attitudes about using writing as a tool both in and beyond classroom assignments

Appendix B7 Analysis Form 2

Teacher Letter:	
Codes: These codes are not "scores" for the teacher but rather estimations of our confidence	ce in
the strength of the evidence.	

3	Robust evidence. The item is supported either by direct observation or by evidence
	from more than one other source.
2	Some evidence. The indicator is there, but it may not be fully developed or
	observations may be mixed.
1	Aspects of the item are there, but they seem superficial or are inconsistent with the
	general thrust of the evidence overall. (Example: terms are used but practices are
	inconsistent with the terms)
0	No evidence. This may mean the teacher doesn't do this item, but it may also mean
	we simply have no evidence to inform a decision about this item.

I.	Improve teachers' lesson design and classroom practices in accordance with theoretically sound practices demonstrated in the IIMPaC program
Code	Indicator
	Showing samples before students write
	Teacher modeling how a task is to be done
	Teacher writing with the students
	Pacing/use of classroom time
	• Using rubrics
	 Providing quality response to student writing, including:
	 Individual conferences
	 Marking with comments other than a grade
	 Presenting writing as a process, including:
	 Teaching prewriting strategies such as clustering/brainstorming
	 Taking a piece through multiple drafts
	 Teaching revision strategies
	 Considering revision and editing separately
	 Sometimes building a revision step into grading/assignment structure
	Opportunities to publish
	Student choice in topics
	• Student-to-student talk (ex. pair-share pattern)
	 Being explicit about objectives/explaining why we are doing this
	 Takes feedback/evidence of student learning into account when planning next steps

II.	Foster a classroom culture and community consistent with norms of IIMPaC program/SCWriP community							
Code	Indicator							
	Students' sense of ownership (this might be vague, but several of the indicators below get to it as well)							
	 Writing is sometimes ungraded 							
	 Students keep writing over time/amass a body of work 							
	• Students use each other as resources							
	• Students listen to each other							
	 Students volunteer each other to share ("you should share yours") 							
	• Clapping							
	 Work is published on the walls, read aloud, and otherwise celebrated 							
	Students volunteer to speak							
	• Group activities work well							
III.	Increase students' opportunities (and the extent to/ways in which they take up those opportunities) to use writing for a variety of purposes beyond the most usual/common frame of demonstrating learning or taking a test:							
Code	Indicator							
	Thinking and learning							
	• Expression							
	Reflection and processing							
	 Social and personal purposes 							
IV.	Increase students' writing for a variety of audiences							
Code								
V.	Develop an awareness of genre features and circumstances							
Code								
VI.	Foster positive student attitudes about using writing as a tool both in and beyond classroom assignments							
Code	<u> </u>							

Appendix B8 Means and t-tests for Indicator Ratings

Indicator labels correspond to specific indicators listed in appendix B7.

Group Statistics

USUCS	CROUR	N	Maan	Ctd Davistian
Indicator	GROUP	IN	Mean	Std. Deviation
SAMPLES	Program group	7	2.71	0.49
SAMPLES	Program group Comparison group	6	1.50	0.49
MODELING	Program group	7	2.14	1.21
WODELING	Comparison group	6	2.00	0.89
WRITEWIT	Program group	6	0.50	0.84
	Comparison group	6	0.50	0.84
PACING	Program group	6	2.50	0.55
	Comparison group	6	2.17	0.98
RUBRICS	Program group	7	1.86	1.21
	Comparison group	6	1.17	1.33
CONFEREN	Program group	7	2.14	1.21
	Comparison group	6	1.67	0.82
COMMENTS	Program group	4	1.75	0.96
	Comparison group	6	0.83	1.17
PREWRITE	Program group	7	2.86	0.38
	Comparison group	6	1.33	0.82
MULTDRAF	Program group	6	2.33	0.82
	Comparison group	6	1.17	0.98
REVSTRAT	Program group	6	2.17	1.17
	Comparison group	6	0.67	0.82
SEPREVED	Program group	6	2.83	0.41
	Comparison group	6	0.50	0.84
REVSTEP	Program group	5	1.60	1.52
	Comparison group	6	0.50	0.55
PUB	Program group	7	2.29	0.95
T00100	Comparison group	6	2.00	1.26
TOPICS	Program group	6	1.67	1.37
OTUTALIA	Comparison group	6	0.00	0.00
STUTALK	Program group	7	2.71	0.76
EVELICIT	Comparison group	6	1.33	1.21
EXPLICIT	Program group	7	1.71	1.60
PLAN	Comparison group	6 6	1.00 2.50	0.89 0.84
PLAN	Program group Comparison group	6	1.33	1.37
UNGRADED	Program group	6	1.67	1.37
UNUNADED	Comparison group	6	1.33	1.21
AMASS	Program group	7	2.57	0.53
AIVIAGO	Comparison group	6	1.50	1.05
RESOURCE	Program group	7	2.43	0.79
REGOUNCE	Comparison group	6	1.33	1.21
LISTEN	Program group	7	1.86	1.35
2.012.1	Comparison group	6	1.33	0.82
PUBCELEB	Program group	7	2.29	1.11
·	Comparison group	6	0.50	0.84
VOLUNTEE	Program group	6	1.67	1.03
	Comparison group	6	1.67	1.21
GROUPACT	Program group	7	2.29	1.11
	5 5 1			

	Comparison group	5	1.20	1.30
THINK	Program group	7	2.29	0.95
	Comparison group	6	1.33	1.03
EXPRESS	Program group	6	2.33	1.21
	Comparison group	6	1.00	1.10
REFLECT	Program group	6	1.33	1.51
	Comparison group	6	0.67	1.21
SOCIAL	Program group	6	1.33	1.03
	Comparison group	6	1.50	0.84
AUDIENCE	Program group	6	1.67	1.21
	Comparison group	6	1.67	0.52
GENRE	Program group	7	1.43	1.13
	Comparison group	5	1.40	1.14
ATTITUDE	Program group	5	2.60	0.55
	Comparison group	6	0.83	0.41

INDEPENDENT SAMPLES T-TEST

Indicator t-test for Equality of Means (asterisk denotes significance at .05)

	t	df	Sig. (2-
			tailed)
SAMPLES	3.26	11.00	0.01*
MODELING	0.24	11.00	0.82
WRITEWIT	0.00	10.00	1.00
PACING	0.73	10.00	0.49
RUBRICS	0.98	11.00	0.35
CONFEREN	0.81	11.00	0.43
COMMENTS	1.30	8.00	0.23
PREWRITE	4.44	11.00	0.00*
MULTDRAF	2.24	10.00	.049*
REVSTRAT	2.58	10.00	.028*
SEPREVED	6.14	10.00	0.00*
REVSTEP	1.67	9.00	0.13
PUB	0.47	11.00	0.65
TOPICS	2.99	10.00	0.01*
STUTALK	2.51	11.00	0.03*
EXPLICIT	0.97	11.00	0.36
PLAN	1.78	10.00	0.11
UNGRADED	0.45	10.00	0.66
AMASS	2.38	11.00	0.04*
RESOURCE	1.96	11.00	0.08
LISTEN	0.83	11.00	0.43
PUBCELEB	3.22	11.00	0.01*
VOLUNTEE	0.00	10.00	1.00
GROUPACT	1.55	10.00	0.15
THINK	1.73	11.00	0.11
EXPRESS	2.00	10.00	0.07
REFLECT	0.85	10.00	0.42
SOCIAL	-0.31	10.00	0.77
AUDIENCE	0.00	10.00	1.00
GENRE	0.04	10.00	0.97
ATTITUDE	6.14	9.00	0.00*

^{*} denotes significance at p<.05

Appendix B9 Guidelines for Analyzing the Collection of Documents

- 1) List what's included:
 - a. What teacher handouts/lesson plans/documents?
 - b. How many students' work?
 - c. What documents for each student?
- 2) Briefly describe the assignment(s): (1-2 sentences)
- 3) Look specifically at revision: What can you observe? What steps are taught? What strategies are kids using? What changes do you see between drafts? How (if at all) is revision separated from editing? (Describe, and also mark with a post-it.)

Appendix B10 Interrater Reliabilities for Student Writing Scores

Interrater Reliabilities by Trait and by Grade Level

	Total N of Papers	Number of Papers Double Scored (Rate)	Overall (Across All Scores) % agree	Holistic % agree	ldeas % agree	Organi- zation % agree	Voice % agree	Sentence Fluency % agree	Word Choice % agree	Conventions % agree
Level										
Elementary	1188	136 (11%)	89%	95%	90%	90%	88%	87%	88%	88%
Middle School	2379	1231 (52%)	93%	96%	92%	92%	91%	92%	94%	92%
High School	3938	381 (10%)	89%	94%	90%	89%	86%	87%	92%	86%
Total - all levels	7505	1748 (23%)	92%	95%	92%	91%	90%	91%	93%	91%