

**Developing Rigorous Education in the Arts
to Motivate Students (DREAMS):
Improving Academic Literacy in the Arts**

Alissa Shethar and Joan I. Heller
Heller Research Associates

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Executive Summary

This research was designed to evaluate an intensive, collaborative professional development program for high school visual and performing arts teachers, and to identify factors that affect its success. The DREAMS professional development (*Developing Rigorous Education in the Arts to Motivate Students*) included three components: (A) *Academic literacy seminars*, to build teachers' knowledge for teaching academic literacy in the arts; (B) *Collaborative Design Institutes*, to support teachers in developing standards-based instructional units that target academic literacy skills; and (C) *Lesson studies*, a collaborative action research process in which teachers tried out lessons and examined student learning to refine their instructional designs. The three-component approach grew out of research in the field on effective professional development, and incorporates the successful practices of RIMS California Arts Project (Heller, Kaskowitz, Jaffe, De La O, & Alexander, 2004).

The professional development approach was based on a theoretical understanding of academic literacy as a set of functional discourse skills (such as describe, analyze, interpret, relate, compare and contrast) that are required by the California Academic Senate for admission to community colleges (Intersegmental Committee of the Academic Senate, 2002). These skills are integral to the California Visual and Performing Arts Content Standards (2001), particularly in the strands of *Artistic Perception* and *Aesthetic Valuing* where what matters is the critical knowledge and observational skills that students can demonstrate in language—"things they can do with words"—rather than the non-linguistic aspects of their artistic projects and performances. The underlying assumption is that a student will demonstrate that they have achieved the standards in the arts not so much by performing or making art, but by thinking, understanding, and communicating like an artist, and by describing, analyzing, comparing and contrasting in the conceptual domain of their arts discipline.

For Component A, DREAMS provided 40-48 hours of activities designed to build teachers' knowledge and skills for supporting arts students' critical thinking, writing, and speaking skills within their arts disciplines. Component A included a discourse model (thinking and talking before writing); modeling informal in-class writing and discussion activities that involve reflective, persuasive, and analytical discourse; working with student dyads and triads; informal techniques for assessing academic literacy; as well as writing activities that strengthen student perceptual and expressive skills.

For Components B and C, treatment group teachers took part in the previously established RIMS California Arts Project Collaborative Design Institute (CDI), a six-month (144-156 hour) program to support teachers in developing standards-based instructional units and assessments in the four arts disciplines. The development process was based on the *Understanding by Design* approach to curriculum and assessment design (Wiggins & McTighe, 1998), in combination with a process of reflective inquiry.

Methodology

Research Design. The efficacy of the project was studied using a longitudinal quasi-experimental, non-equivalent comparison-group design with pre-test, post-test, and follow-up measures. We compared teacher survey and student assessment data from three cohorts of teachers who completed the entire DREAMS professional development sequence with data from a comparison

group of teachers from the same schools who had not participated in the professional development.

Participants. Teachers of the four arts disciplines—dance, music, theater, and visual arts—were recruited in 10 school districts in two counties: San Bernardino and Riverside. A total of 50 teachers were recruited, 34 of whom completed the study, but by 29 of whom full sets of data were provided. As a result, the sample sizes are too small for definitive conclusions, and this report will focus primarily on trends in the data. The majority of the participants were white, female, and quite experienced teachers. Approximately 43% of the students in this study were English learners, and an average of 57% of the participating students were receiving free or reduced lunches.

Data Collection. Three cohorts of teachers participated in DREAMS during a four-year period, with participation staggered such that a new cohort joined the study each of the first three years. Treatment teachers were interviewed and surveyed before, during, and after completing the entire professional development sequence. Students' academic literacy was measured through written assessments in the four arts disciplines. Scoring rubrics for each assessment included one holistic score, and 10 analytic scores in four areas of interest (arts academic literacy, arts content knowledge, critical thinking, and writing skills).

Results

In summary, overall, teacher response to the course was very positive. There is evidence that teachers learned a good deal about the importance of academic literacy in the arts, and became less ambivalent about teaching academic literacy in their classes. They learned.

Teacher ratings. When surveyed and interviewed about their professional development experience, teachers were generally very positive. Most teachers stated that they learned specific strategies for teaching and assessing academic literacy skills required to achieve the arts content standards. Over half the teachers in Cohorts 1 and 2 gave the highest rating (excellent, extremely valuable) to three elements of the professional development in particular: the model lessons, the discourse model (a routine wherein students reflect on and discuss a topic before writing), and the discussions with other teachers in their arts discipline. These ratings were quite a bit lower for Cohort 3.

Instructional practices. According to both teachers and students, treatment group teachers put these lessons into practice with their students, increasing the frequency of in-class writing and discussion activities, and emphasizing the types of writing activities that require greater conceptual application and communicative skills. However, Cohort 3 did not rate the course as highly as the previous cohorts, their content learning was less impressive overall, and there is evidence that they did not implement the practices advocated by the DREAMS professional development as readily as the other cohorts.

In interviews and surveys, we found evidence of an increase in teacher beliefs about the importance of academic literacy. By the end of the professional development, almost all teachers in all three cohorts agreed that it was their job to teach students how to speak and write about the arts, and agreed that devoting class time to thinking about the arts was important. In the comparison group, the 'ambivalent minority' remained ambivalent about both.

Based on student reports of the frequency and kinds of writing they did in their arts classes, treatment and comparison group students reported generally similar frequencies, except in dance,

where treatment students reported far more frequent writing than students in comparison classrooms. However, far more treatment than comparison students reported doing the types of conceptual and reflective writing advocated in the professional development, such as reviews of art works, critiques, in-class reflections on works of art, free writing, journaling, and even essay writing.

Student achievement. HLM analyses indicated a significant gain for Cohort 1 over comparison ($p < 0.05$); there was no evidence of treatment effects for Cohorts 2 or 3. The Cohort 1 results indicate that the DREAMS program raised student scores on all four scales, measuring *arts academic literacy*, *arts content knowledge*, *critical thinking*, and *writing skills*. The main variables that correlated positively with higher student gains were: (a) higher frequency of in-class writing, (b) higher frequency of in-class discussion, (c) higher frequency of in-class critical thinking activities, and (d) prior California Arts Project experience.

Conclusion

This study provides indications that the DREAMS professional development does change teachers' knowledge and instructional practices in ways that improve students' academic literacy in the arts, but the results must be interpreted cautiously because of the small sample size. Three cohorts of teachers (a total of 24 teachers) went through the professional development experience, and statistically significant differences were found between student gain scores of the first cohort and gains of students in comparison teachers' classes. Tests of student outcomes were inconclusive for the second cohort, and were not included for the third cohort because they did not complete their training and data collection early enough in the funding period.

There is stronger evidence, including statistically significant changes in teachers' survey ratings, that the professional development changed teachers' understanding of and attitudes toward academic literacy in the arts, resulting in substantial changes in their literacy practices. Based on teacher and student surveys as well as teacher interviews, it is evident that teachers came to understand the importance of students' abilities to think, discuss, and write in their arts disciplines. The arts teachers shifted from believing that writing should be taught by English teachers to seeing it as part of their job to teach students how to understand the fundamental concepts in their arts disciplines, and be able to speak and write about the arts. As a result, the treatment teachers reported having their students write and discuss the arts more than did comparison teachers, and treatment teachers' students reported doing far more reflective forms of writing (such as reviews and critiques of art works) in class than their comparison counterparts.

One notable result is the relatively large arts content knowledge gains of the treatment groups. Gains were intended in academic literacy and critical thinking, and some improvement might be anticipated in writing simply as an effect of practice. The arts content knowledge, however, was expected to be the same for comparison and experimental group students because its scales measure the usual class content. The unexpected impact on Arts Content Knowledge suggests that learning to think, understand, and communicate like an artist, which improves academic literacy, also improves subject-matter knowledge.

The primary limitations of this study are its small sample size, and the non-random selection and assignment of teachers to groups. Furthermore, the comparison group's means on the pre-test were higher than the treatment group's means, possibly indicating different types of students. A true, randomly-assigned control group with comparably able students to those in the treatment group would be important to validate the trends in the current study.

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List of Acronyms and Abbreviations

ANOVA	Analysis of variance
API	Academic Performance Index
CDE	California Department of Education
CDI	Collaborative Design Institute
DREAMS	Developing Rigorous Education in the Arts to Motivate Students
EL	English learner
HLM	Hierarchical linear modeling
IHE	Institute of Higher Education
LEA	Local educational agency
NCLB	No Child Left Behind
PD	Professional development
RIMS CAP	Riverside, Inyo, Mono, and Riverside County California Arts Project
SBR	Scientifically based research
TCAP	The California Arts Project
Tx	Treatment
VAPA	Visual and Performing Arts

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Introduction and Background

I. a. The Purpose of the Research

This research was designed to evaluate an intensive, collaborative professional development program for high school visual and performing arts teachers, and to identify factors that affect its success. The DREAMS professional development (*Developing Rigorous Education in the Arts to Motivate Students*) included three components: (a) seminars to build teachers' knowledge for teaching academic literacy in the arts; (b) an institute to support teachers in developing standards-based instructional units that target academic literacy skills; and (c) a collaborative action research process (using lesson study) in which teachers tried out lessons and examined student learning to refine their instructional designs. The efficacy of the DREAMS project was measured using a quasi-experimental, non-equivalent group design with pre-test, post-test and follow-up measures. Three cohorts of teachers completed the professional development and a comparison group was recruited from the same districts and schools in Southern California. Qualitative and quantitative data were gathered at intervals from the teachers and their students, analyzed, and compared, showing that teachers learned valuable teaching strategies in the professional development, that they implemented the recommended classroom practices to a high degree, and that their students made greater gains in the areas of academic literacy, arts content knowledge, and critical thinking skills than the students of comparison group teachers. The DREAMS project contributes an evidence-based model of effective academic literacy strategies and professional development design for the secondary arts classroom to the field, as well as arts-integrated and field-tested assessment instruments for measuring academic literacy and arts content knowledge.

I. b. Description of the Project: Professional Development Approach and IHE/LEA Partnership

The DREAMS professional development approach is based on a theoretical understanding of academic literacy as a set of functional discourse skills (such as describe, analyze, interpret, relate, compare and contrast) that are required by the California Academic Senate for admission to community colleges (Intersegmental Committee of the Academic Senate, 2002). These skills are integral to the California Visual and Performing Arts Content Standards (2001), particularly in the strands of *Artistic Perception* and *Aesthetic Valuing* where what matters is the critical knowledge and observational skills that students can demonstrate in language—"things they can do with words"—rather than the non-linguistic aspects of their artistic projects and performances. The underlying assumption is that a student will demonstrate that they have achieved the standards in the arts not so much by performing or making art, but by thinking, understanding, and communicating like an artist, and by describing, analyzing, comparing and contrasting in the conceptual domain of their arts discipline.

The project combined three professional development components to prepare teachers to improve students' academic literacy in the arts. The three components of DREAMS grew out of research in the field on effective professional development models and incorporates the successful practices of RIMS California Arts Project (Heller, Kaskowitz, Jaffe, De La O, & Alexander, 2004), and meets the intent of SBCUSD's Blueprint for Success. For Component A, DREAMS provided 40-48 hours of targeted professional development designed to build teachers' knowledge and skills

in the area of supporting arts students' critical thinking, writing and speaking skills within their arts studies. Component A's professional development in teaching writing and other forms of academic literacy was based on successful interventions by Dr. Sam Crowell and other colleagues at the Center for Research in Integrative Learning and Teaching at CSUSB (the IHE partner), and proven methods for supporting the academic literacy skills of students recommended by Trish Lindsay, Secondary Education English Language Arts Coordinator at SBCUSD (the LEA partner).

This functional view of academic literacy¹ has extensive theoretical foundations (cf. Street, 1985; Chamot & O'Malley, 1986; Halliday 1989; Short, 1994; and Coelho, 1982) and continues to be the basis for successful interventions with English learners and college composition students today (cf. Chamot, 2009; Robinson, Tucker & Hicks, 2009; National Writing Project & Nagin, 2006). Highlighted components from Component A included: the discourse model (thinking and talking before writing); modeling informal in-class writing and discussion activities that involve reflective, persuasive, and analytical discourse; working with student dyads and triads; informal techniques for assessing academic literacy; and writing activities that strengthen student perceptual and expressive skills. Substantial changes were made to component A after the first cohort of teachers completed the course, namely, eight hours of instruction were added to this first component, focusing and strengthening the concept of academic literacy as a set of functional discourse skills.

For Component B and C, treatment group teachers took part in the previously established RIMS California Arts Project Collaborative Design Institute (CDI), a six-month (144-156 hour) California Arts Project professional development program. In 1999, the SBCUSD and RIMS California Arts Project initiated one of the first professional development programs in California to support teachers in developing, trying out, and using standards-based instructional units and assessments in the four arts disciplines. The development process was based on the Understanding by Design (Wiggins & McTighe, 1998) approach to curriculum and assessment design, in combination with a process of reflective inquiry. This approach had been shown to have a positive impact on teachers' content knowledge and reported teaching practices in the arts as well as in other subject areas (McTighe & Seif, 2003).

The CDI had five strands:

1. *Artistic Processes*, in which the participating teachers engage in a creative inquiry within their arts discipline;
2. *Academic Content Knowledge/Classroom Applications*, in which the participating teachers collaboratively design a standards-based unit of instruction for their classroom;
3. *Reflection*, in which teachers engage in professional reflection upon student and teacher learning;
4. *Leadership*, in which teachers examine current issues, research and initiatives in arts education, and
5. *A Local Option Strand*, which in the DREAMS project was Component A (academic literacy, above) and C (action research, below).

¹ Also called academic language functions in this literature.

After the first cohort of teachers completed the course, sixteen hours of instruction were added to component B and C, providing additional instruction, analysis, and reflection time regarding the academic literacy strategies and activities which were to be built into the units.

The CDI prepared teachers for designing and implementing standards-based curricula in the arts by guiding them through the process. During the CDI, teacher sessions were facilitated by experienced RIMS California Arts Project teacher leaders as they worked in small VAPA discipline-based cadres to develop their units. Preliminary evidence indicated that SBCUSD teachers who received this professional development evidenced major shifts in their knowledge about the arts content standards and in their teaching practice, including providing more and varied opportunities for students to conceptualize and express ideas about artistic creations in terms of the elements and principles of the art form (Heller, Kaskowitz, Jaffe, De La O, & Alexander, 2003). As a result, an increase in the amount and quality of student writing and discussion about works of art was expected.

At the CDI, the teachers were asked to design a standards-based unit focusing on individual standards from the *Artistic Perception* and *Aesthetic Valuing* content strands of the California VAPA Standards, highlighting the academic literacy skills required by those strands and utilizing the academic literacy activities and teaching strategies gained in Component A. The resulting unit, the incorporated writing and critical thinking activities, and the observed student learning were then evaluated by the teachers in action research groups, which constituted Component C. For this third component of DREAMS, the teacher cadres engaged in Lesson Study action research groups. Each cadre selected from its unit a specific lesson to fully develop and study. Each teacher in the group then taught and videotaped the lesson in his/her own classroom, observing and assessing the students during the lesson. Cadres then worked together to analyze the academic literacy learning and modify the unit. Each teacher then re-taught the chosen lesson, and observed students' learning a second time. After debriefing, the teachers made final refinements to the units and reported to the whole cohort on the strengths and weaknesses of their units, with extra attention to the effectiveness of the academic literacy activities and teaching strategies. All three components of DREAMS incorporate the characteristics that make professional development courses most effective, according to Garet, et al. (2001). Namely, the course was sustained and intensive, was tailored to the content area with links to the content standards, provided opportunities for active learning, provided opportunities for teacher-participant leadership roles, and invited collective participation and collaboration.

I. c. The LEA Setting

The research was carried out primarily in San Bernardino County school districts with a smaller number of teachers recruited from Riverside County school districts. Table 1 shows 2007-08 student demographic statistics for the two counties reported by CDE district profiles, though the statistics for individual schools of teachers in this study were much higher. For example, based on participating students' self-reports, 43% of the students in this study are English learners, and according to individual school statistics, an average of 57% of the participating students receive free/reduced lunches.

Table 1
Student Demographics of Counties in which Study Conducted

Student demographic	County	
	San Bernardino	Riverside
Total students in county	137,123	421,642
Title I	50.6%	44.4%
Hispanic/Latino	55.7%	56.4%
English learners	22.1%	23.9%
Students receiving free/reduced lunch	55.0%	51.3%
Dropout rate, four-year adjusted	22.5%	17.3%

California Department of Education data provide additional evidence that the high school students in the study schools are low-achieving in the area of literacy (see Table 2). Just over a third of proficient English speakers and fewer than five percent of English learners scored at or above proficient on the 2003-04 California Standards Test of English Language Arts for Grades 9-11. Eleven of the fifteen schools included in the study were program improvement schools.

Table 2
Percent of Students At or Above Proficient on 2003-2004 California Standards Test of English-Language Arts, Grades 9-11

Group	Grade		
	9	10	11
San Bernardino County			
Fluent English Proficient and English Only	35%	34%	30%
English learners	4%	3%	2%
Riverside County			
Fluent English Proficient and English Only	39%	37%	32%
English learners	4%	2%	2%

In addition, several of the 15 schools in this study lacked a rigorous standards-based program in the arts, and, unfortunately, this is far from unusual. A report on California K-12 visual and performing arts instruction published by SRI International stated that 72% of California high schools fail to offer standards-aligned courses of study in the four arts disciplines (Guha, et al., 2008). This means that most students in California do not receive arts instruction at the level required under state policy. Teachers in the arts do not have access to the same level of professional training as their colleagues in other academic subjects: whereas “most music and visual arts teachers, for example, hold the appropriate teaching credentials, . . . no single-subject credentials are offered for dance or theatre” (Guha, et al., 2008, p. x). Instead, these teachers hold physical education credentials, or dance or theatre subject-matter specializations for another

credential, making it even less likely that these teachers have learned specific strategies for assessing and strengthening their students' academic literacy skills. Many VAPA teachers also deal with other teachers' beliefs that visual and performing arts are not academic subjects: "Only half the teachers surveyed reported that their teacher colleagues consider arts education an important part of the school curriculum" (Guha, et al., 2008, p. xi). In spite of the obvious need for professional development that focuses on incorporating state or district VAPA standards into instruction or assessing student learning, less than half of the California teachers responding to SRI's survey reported that they were able to participate in such professional development courses (48% and 42% respectively, Guha, et al., 2008, p. xii).

Districts in San Bernardino and Riverside counties are working hard to decrease the dropout rate and increase the number of students continuing to college by ensuring that all students have access to a high-quality, standards-based education. However, specific targeted academic literacy support is needed in all content areas, including secondary arts classrooms. The California Standards (2001) call for students to have conceptual, perceptual and expressive skills in order to respond to, analyze and understand historical/cultural dimensions and make judgments about works of art. The goal of the DREAMS Project was to address the deficit in student literacy achievement and skills, as well as secondary arts educators' lack of preparation to address deficits in academic literacy, thereby improving students' chances of being admitted to two- and four-year programs in the arts and other fields.

I. d. Review of Related Research: Conceptualizing Academic Literacy in the Arts

A frequently quoted 1962 definition of literacy by UNESCO stated that:

A person is literate when he has acquired the essential knowledge and skills which enable him to engage in all those activities in which literacy is required for effective functioning in his group and community. (Cited in Street, 1985, p. 183)

Research in the late 1980s sought to expand on this social-constructivist view of language and understand what made academic writing and classroom discourse initially more difficult for English learners and low-income students. Linguists and educational researchers began to conceptualize academic language not only as lists of specialized vocabulary words, but more importantly, as sets of "unique language functions and structures ... that are characteristic of classrooms in general [such as] seeking information, informing, analyzing, comparing, classifying, predicting, hypothesizing, justifying, persuading, synthesizing and evaluating" (Solomon & Rhodes 1995, p. 2). Subject-area specialists identified the language functions that were salient in particular academic subjects. Short (1994), for example, argued that students in American history classes needed to be able to use the following academic language functions effectively: explaining, describing, defining, justifying, giving examples, sequencing, comparing, and evaluating. Second Language Acquisition researchers designed pedagogical approaches for English learners, such as CALLA (Chamot & O'Malley, 1986), that were designed to teach academic language functions like classifying, summarizing and inferencing to English Learners students explicitly, by analyzing the discursive form of each function and modeling and practicing each skill.

Many of California's current K-12 subject area standards are based on just such a functional understanding of academic literacy. Much like the English and History standards, each strand of the Visual and Performing Arts standards is described as a set of functional communicative skills. For high school visual arts as an example, see Figure 1. Note that each bulleted element is defined as a set of communicative and critical skills, rather than as creative or perceptual skills. What matters is the critical knowledge and observational skills that students can demonstrate in language—"things they can do with words"—rather than the non-linguistic aspects of their artistic projects and performances. The underlying assumption is that a student will demonstrate that they have achieved the standards in the arts not so much by performing and/or making art, but by thinking, understanding, and communicating like an artist, by describing, analyzing, comparing and contrasting as a professional artist would, and thereby 'functioning as an artist within the community of artists.'

High School Visual Arts Content Standards, proficient level

ARTISTIC PERCEPTION

Develop Perceptual Skills and Visual Arts Vocabulary

- **Identify and use** the principles of design to discuss, analyze, and write about visual aspects in the environment and in works of art, including their own.
- **Describe** the principles of design as used in works of art, focusing on dominance and subordination.

Analyze Art Elements and Principles of Design

- **Research and analyze** the work of an artist and write about the artist's distinctive style and its contribution to the meaning of the work.
- **Analyze and describe** how the composition of a work of art is affected by the use of a particular principle of design.

Impact of Media Choice

- **Analyze** the material used by a given artist and describe how its use influences the meaning of the work.
- **Compare and contrast** similar styles of works of art done in electronic media with those done with materials traditionally used in the visual arts.

Figure 1. Excerpt from California high school visual and performing arts standards in visual arts, with functional academic literacy skills identified in bold type (emphasis added).

The Academic Senates of the California Community Colleges, the California State University, and the University of California published *Academic Literacy: A Statement of Competencies Expected of Students Entering California's Public Colleges and Universities* in which they defined what constitutes academic literacy, highlighting many of the same functional discourse skills:

The dispositions and habits of mind that enable students to enter the ongoing conversations appropriate to college thinking, reading, writing, and speaking are inter-related and multi-tiered. Students should be aware of the various logical, emotional, and personal appeals used in argument; additionally they need skills enabling them to define, summarize, detail, explain, evaluate, compare/contrast, and analyze. Students should also have a fundamental understanding of audience, tone, language usage, and rhetorical strategies to navigate appropriately in various disciplines. (Intersegmental Committee of the Academic Senates, 2002, p. 13)

The emphasis is on the tools, the discrete critical and expressive skills used in speaking and writing, rather than the level or quality of writing overall or use of academic terminology. The report goes further to stress that these elements of academic literacy are expected of entering freshmen in all college disciplines and in each of the content areas.

Traditionally, English teachers have been primarily responsible for students' literacy, while they simultaneously teach their own requisite content area—notably, literature. In order to be prepared for college and university courses, students need greater exposure to and instruction in academic literacy than they receive solely in English classes. Academic literacy is an institutional obligation. (2002, p. 35).

In spite of the prevalence of this definition of academic literacy in research and policy circles, published studies of teacher beliefs (and our own more recent surveys) show that teachers often think about academic literacy and academic language interchangeably, and define academic literacy solely in terms of the specialized vocabulary words that set their content area apart from others. In their study of teachers' perspectives of academic language, Solomon & Rhodes (1995) surveyed teachers of English as a Second Language across the country and found that:

Many of the respondents viewed academic language in terms of discrete aspects of language such as vocabulary, lexis and syntax.... The teachers view academic language from a practical perspective—the language students need to *understand* the lesson or unit being studied. The teachers at this point made little reference to broader levels of language. (1995, p. 12, emphasis added)

Participants in the DREAMS project also tended, initially, to define academic literacy and academic language interchangeably as a standard set of disciplinary vocabulary terms. They believed that if students learned the content-specific words and their definitions and could understand the lesson, they will be able to use the vocabulary. However, there is a considerable step between being able to recite word definitions and being able to apply words conceptually in appropriate contexts. For example, it is one thing to be able to know the visual arts meaning of the word “unity”, and another to be able to describe and evaluate how the principle of unity is used in a given work of art. The vocabulary worksheets that are frequently used in arts classrooms to drill students on the principles and elements of design often do little to help them conceptually apply these terms. While SRI's teacher survey results (Guha, et al., 2008:41) show that most secondary arts teachers (65%-78%) are familiar with the VAPA standards, which specify a wide range of functional academic literacy skills, most arts teachers have little background in academic literacy

skill development, limited access to professional development tailored to the arts, and contend with widely held beliefs that visual and performing arts are ‘non-academic subjects.’

One can hardly blame arts teachers for believing, as many of those in this study initially told us, that “it’s the English teacher’s job to teach academic literacy.” Because many California high school students in low performing schools have relatively poor academic literacy skills, and many teachers in content areas other than English do not know how to directly address this issue, the problem persists, making it difficult for those students either to perform well on standardized tests or to achieve the content standards, since they too are defined and measured in terms of these content-specific academic literacy skills.

The DREAMS professional development strongly recommended that teachers do frequent, informal, reflective and synthesizing in-class discussion and writing activities with their students, as well as explicitly model functional academic literacy skills in all four modalities (speaking, listening, reading, and writing). This approach is supported by recent research and successful teaching approaches which demonstrate that writing helps students become better artists, as well as research that shows that the kind of writing and thinking that students do in the arts classroom can make artists into better students. For example, Lynn Sanders-Bustle’s study of students’ use of visual artifact journals illustrates that “By writing about objects of importance, learners make personal connections between art and their lives. Learning about art includes not only an understanding of masterpieces or drawing skills, it also includes focused engagement with ... multiple worldviews” (2008:14). Mary Ehrenworth’s (2003) *Looking to Write* examines the implications of teaching writing through the visual arts, and in particular, how students respond to aesthetic experiences and how they develop as writers. And other studies provide evidence that “linking writing exercises and arts experiences yields deeper and more complex understandings and articulations by students” (Deasy, 2002:8) in the other visual and performing arts as well—in theatre (Catterall, 2002b), music (Scripp, 2002) and dance (Bradley, 2002).

In a 1998 Art Education exchange between Eliot Eisner and James Catterall, however, such studies have been criticized for “instrumentalizing” the arts. As Eisner argued:

I have no objection if experience in the arts helps raise test scores in math, reading, or sentential calculus. Problems begin to emerge when the values for which the arts are prized in schools are located primarily in someone’s version of the basics, when those basics have little or nothing to do with the arts.... to use the arts *primarily* to teach what is not truly distinctive about the arts is to undermine, in the long run, the justifying conditions for the arts in our schools. (1998a, p. 12)

Eisner recommended instead that arts research focus on the intrinsic qualities of learning in the arts, such as creative thinking, negotiating ambiguity, cultivating aesthetic awareness, resisting closure, and accepting multiple perspectives (ibid). Catterall responded by pointing to the extensive body of research supporting the value of learning through the arts:

To say that the arts generally... have little place in academic learning is tantamount to saying that the written word, or even representation more generally, has little place in academic learning. We teach through representations. We construct meaning by

formulating our own representations; usually these representations are verbal and occasionally diagrammatic—at least that's the way we usually make our understandings public and put them out for scrutiny for our teachers and classmates. (Catterall, 1998, p. 10)

This debate continues to make developing assessments in the arts both challenging and controversial. The radically intrinsic belief that that much of artistic behavior is beyond words, that the arts fundamentally differ from “academic” subjects, implies that it might be possible to measure students' arts knowledge without recourse to students' written or verbal expression of that knowledge. In NAEP's 2008 Arts Performance Assessment, for example, the authors describe their attempt to keep the “reading burden as low as possible” (National Assessment Governing Board, 2008, p. 9). They discuss their misgivings about that fact that the performance assessment is primarily a written assessment.

It is impossible to adequately describe many artistic behaviors in words. Appropriate aural, visual, and kinesthetic responses to student performance must therefore be developed. However some components of the artistic performance can be expressed in words. Obviously, students' ability to use appropriate dance, musical, dramatic, or visual arts vocabulary can only be assessed by asking students to use that vocabulary. (National Assessment Governing Board, 2008, p. 24)

While others have criticized written tests for their inability to measure aesthetic responses (Gaitskell & Hurwitz, 1970) and their effect on arts instruction (Hamblen, 1988), written tests remain the most widely used source of assessment information in the arts today (Gruber, 2008). It is important to understand that the DREAMS professional development was based on an understanding of the relationship between the arts and written/oral expression in which there are important mutual relationships between creating, understanding, perceiving and conceptualizing art. The DREAMS project both taught and measured academic literacy skills as integral to artistic understanding and expression, promoting an arts-based and standards-aligned understanding of academic literacy. For this reason, a written test which asked students to describe, analyze, interpret, and/or evaluate performances and works of art was entirely appropriate. The intent was not to measure artistic performance per se, as the NAEP assessment aims to do, or merely assess the students' use of arts vocabulary. Rather, the assessment was designed to measure student ability to communicate about artistic performances and works of art, to describe, interpret, analyze and evaluate them.

Methodology

II. a. Research Design

The goals of the research were to evaluate the efficacy of the DREAMS arts and literacy professional development and identify factors that affected its success. The efficacy of the project was studied using a longitudinal quasi-experimental, non-equivalent comparison-group design with pre-test, post-test, and follow-up measures. We compared teacher survey and student assessment data from three cohorts of teachers who completed the entire professional development sequence with data from a comparison group of teachers from the same schools who had not participated in

DREAMS. By comparing teacher and student outcomes for the experimental and comparison groups, the research evaluates program impact and determines not only whether there are group differences, but for whom, and under what conditions. Teacher and student surveys also included questions about teacher practices. These were compared in order to gauge the implementation of the activities and approaches recommended in DREAMS, how the frequency of these practices changed over time, pre-to-post, and how treatment teacher practices compared to comparison teacher practices. The research questions were:

1. What impact does the DREAMS Project have on teachers' instructional practices with respect to standards-based practice and academic literacy in the arts?
2. What impact does DREAMS have on student achievement with regard to academic literacy in the arts?
3. What are the main factors related to school context (e.g., API, poverty level), teacher background (e.g., discipline, frequency of specific recommended classroom practices, teacher experience, previous professional development, cohort), and student characteristics (e.g. grade level, writing level, English learner status, writing enjoyment, expected grade in their art form).

	Spring '06	Fall '06	Spring '07	Fall '07	Spring '08	Fall '08	Spring '09
Cohort 1 [n=11]	< --- PD ----->		Pilot SA	Pilot SA	PRE [st n =193 matched]	POST	PRE [st n =199 matched]
Cohort 2 [n=7]		< --- PD ----->		PRE [st n =119 matched]	POST	PRE [st n =98 matched]	POST
Cohort 3 [n=8]					< --- PD ----->		PRE [st n =166 matched]
Control [n=8]				PRE [st n =119 matched]	POST	PRE [st n =146 matched]	POST

Figure 2. Quasi-experimental, non-equivalent comparison-group design with pre-test, post-test, and follow-up measures administered to three teacher cohorts and a comparison group.

Three cohorts of teachers participated in DREAMS during a four-year period, with participation staggered such that a new cohort joined the study each of the first three years (see Figure 2 and timeline in Appendix 1). Treatment teachers were interviewed and surveyed before, during, and after completing the entire professional development sequence. During the pilot year, student assessments were administered to Cohort 1 midway through the professional development and

treated as pilot data in order for us to refine the assessment and scoring procedure. During Year 1, the students of Cohorts 1 and 2 and the Comparison group were assessed, although Cohort 2 had not yet completed the whole professional development sequence. During Year 2 of data collection, the students of Cohorts 1, 2, and 3 and the Comparison group were assessed, although Cohort 3 had not yet completed the sequence.

Comparison group teachers completed a survey while their students were being assessed, while treatment group teachers completed their surveys and interviews at the PD. Note that this meant we administered surveys to comparison and treatment teachers at different times of the year. Comparison teachers also had a slightly shorter interval between pre- and post-surveys than treatment teachers did (six versus eight months).

II. b. Data Collection Procedures and Sources

The data collection instruments that were used to address each research question are listed in Table 3.

Table 3
Data Collection Instruments Used to Address Research Questions

Research Question	Student Assessments	Teacher Background Surveys	Teacher Practice Surveys	Teacher Interviews
What impact does the <i>DREAMS Project</i> have on <i>instructional practices</i> ?			✓	✓
What impact does the <i>DREAMS Project</i> have on <i>student achievement</i> ?	✓		✓	✓
What are the main factors that are associated with observed student outcomes?	✓	✓		✓

Assessment of Students' Academic Literacy in the Arts

Written student assessments to measure academic literacy were administered in arts classrooms at the beginning and end of each school year (see Appendices 2 and 3 for the assessments and scoring rubrics). The assessment design was based on a specific set of goals:

- The assessment should resemble a typical arts classroom assignment and be tailored to the arts discipline;
- The assessment should not privilege students who had more extracurricular exposure to 'high culture' forms of that art;
- The assessment should be closely aligned with specific arts content standards;
- The assessment should require students to use academic literacy skills (e.g., analyze, describe, interpret, etc.); and
- The assessment should elicit a sample of writing that could be used to assess those skills.

We consulted with content specialists in each of the four arts disciplines, as well as assessment specialists, in designing both the assessments and the rubric. Four assessments—one each for visual arts, theatre, music, and dance—were developed for this project. The assessments were piloted and refined in 2006-2007.

Scoring rubrics were developed for each assessment, including descriptions of five-level scales for one holistic score and ten analytic scores (see Appendix 3). The rubric was designed to:

- Capture growth in areas targeted by the professional development;
- Include a holistic score, but be primarily analytic, with sub-scores in each of the four areas of interest (arts academic literacy [AS], arts content knowledge [ACK], critical thinking [CT], and Writing [Writ]);
- Define the disciplinary application of the specific academic literacy skills elicited by each prompt;
- Define the specific arts content knowledge elicited by each prompt;
- Use elements of any relevant existing rubrics, including districts' own, if possible.

We found no other assessments or rubrics that measured academic literacy in the arts. We reviewed a large number of critical thinking rubrics and eventually created our own scale, and for the four writing scales, used a slightly simplified version of the writing rubric that is currently used in SBCUSD, which in turn is a simplified version of the National Writing Project's six-trait rubric. The analytic scores measured prompt-specific academic literacy skills for each of the target strands of the standards (*Artistic Perception* and *Aesthetic Valuing*), as well as arts content knowledge, critical thinking, and writing skills. Benchmarks were developed based on the pilot data for each unique scale in the four rubrics.

Student Background Information and Classroom Information

Students also completed background information forms during each assessment. The questions covered a range of topics, such as EL status and primary language, grade level and age, art-related attitudes and experience, types and frequency of in-class writing activities in that class, and their attitudes toward writing. During the assessment, the teachers also filled out a form providing basic facts about the class including title and level of the class and a description of the students' average writing ability.

Teacher Surveys

All teachers completed lengthy surveys and their responses were compared over time. Treatment teachers were surveyed before, during and after completing the professional development sequence, and comparison teachers were surveyed at the beginning and end of the academic year, at the same time as their students were assessed. The surveys included general teacher background questions about their teaching and how they rated the professional development. We asked a range of open-ended and Likert-type questions regarding their attitudes and beliefs about academic literacy, the frequency of specific classroom activities, their teaching approach, content questions relating to the arts standards and the two strands (*Artistic Perception* and *Aesthetic Valuing*), which were the focus of the professional development. There were also several open-ended questions

designed to elicit descriptions of their teaching and assessment methods as well as their understanding of their students' academic literacy skills.

Teacher Interviews

Treatment group teachers were interviewed at roughly the same times as they were surveyed: before, during, and after completing the professional development. We asked more in-depth questions about their understanding of academic literacy, their teaching methods and beliefs, and the impact of the professional development on their instructional practice.

Construct Validity

All instruments were based on an understanding of academic literacy as a set of communicative and functional skills that are inherent in the California VAPA standards and the basis of the DREAMS professional development. Survey questions and student assessments were:

- Aligned with specific VAPA arts standards,
- Focused on specific academic literacy skills (e.g., *analyze, describe, interpret, etc.*), and
- Designed to elicit verbal or written responses that could be used to assess those specific skills and understandings.

II. c. Participants

Teachers of the four arts disciplines, dance, music, theater, and visual arts, were recruited in 10 school districts in two counties—San Bernardino and Riverside. As described in section III.b., both recruitment and retention were problematic in this study. As shown in Table 4, a total of 50 teachers were recruited, 34 of which completed the study, but by 29 of whom full sets of data were provided. As a result, the sample sizes are too small for definitive conclusions, and this report will focus primarily on trends in the data.

Table 4
Teacher Participants

Cohort	Recruited	Completed	Attrition	Data complete
Cohort 1	15	11	26.7%	10
Cohort 2	12	8	33.3%	7
Cohort 3	15	8	46.7%	7
Total treatment group	42	27	35.7%	24
Comparison group	8	7	12.5%	5

As shown in Table 5, the majority of the participants were white, female, and quite experienced teachers. English learners comprise a large portion of the student population they teach.

Table 5
Teacher Background and School Context Information

Identifier	Cohort 1	Cohort 2	Cohort 3	Total Treatment	Comparison
Sex:	(n=10)	(n=7)	(n=7)	(n=24)	(n=5)
Male	30.0%	14.3%	57.1%	33.3%	33.3%
Female	70.0%	85.7%	42.9%	66.7%	66.7%
Ethnicity:	(n=10)	(n=7)	(n=7)	(n=24)	(n=5)
White/Caucasian	60.0%	71.4%	71.4%	66.7%	50.0%
African-American/Black	20.0%	0.0%	14.3%	12.5%	20.0%
American-Indian/Alaska Native	20.0%	0.0%	0.0%	8.3%	0.0%
Decline to State	0.0%	28.6%	14.3%	8.3%	20.0%
Number of years teaching:	(n=8)	(n=7)	(n=7)	(n=22)	(n=5)
1-2 years	0.0%	14.3%	14.3%	9.1%	0.0%
3-5 years	12.5%	0.0%	0.0%	4.5%	20.0%
6-10 years	50.0%	28.6%	42.9%	40.9%	20.0%
11-19 years	37.5%	42.9%	28.6%	36.4%	40.0%
> 20 years	0.0%	14.3%	14.3%	9.1%	20.0%
Percentage of students classified as English Learners:	(n=9)	(n=6)	(n=7)	(n=22)	(n=5)
0-19%	33.3%	33.3%	28.6%	31.8%	-
20-39%	22.2%	16.7%	14.3%	18.2%	-
40-59%	11.1%	0.0%	0.0%	4.5%	-
Some EL but % unknown	22.2%	50.0%	42.9%	36.4%	-
Don't know	11.1%	0.0%	14.3%	9.1%	-
School district:	(n=10)	(n=7)	(n=7)	(n=24)	(n=5)
San Bernardino City	50.0%	14.3%	14.3%	29.2%	80.0%
Rialto	40.0%	0.0%	0.0%	16.7%	0.0%
Apple Valley	0.0%	14.3%	28.6%	12.5%	0.0%
Fontana	0.0%	28.6%	0.0%	8.3%	20.0%
Lake Elsinore	10.0%	0.0%	14.3%	8.3%	0.0%
Temecula	0.0%	14.3%	14.3%	8.3%	0.0%
Alvord	0.0%	0.0%	14.3%	4.2%	0.0%
Colton Joint	0.0%	14.3%	0.0%	4.2%	0.0%
Corona-Norco	0.0%	0.0%	14.3%	4.2%	0.0%
Val Verde	0.0%	14.3%	0.0%	4.2%	0.0%

II. d. Data Analysis

Qualitative Analysis

The interviews and surveys were analyzed for evidence relating to standards-based instruction, reactions to and understanding of professional development content, and the incorporation of literacy components. Each cohort of teachers was observed during the unit development phase. We were primarily interested in the extent to which they highlighted academic literacy during these discussions, but no formal analysis was made of these notes or the lessons themselves. All of the interviews and open-ended survey questions were coded and analyzed using HyperResearch. Transcripts and open-ended responses were coded for themes related to the research questions, such as teacher attitudes about academic literacy in the arts classroom, instructional practices, beliefs about student learning, and the efficacy of different approaches. Responses on mid- and post-course surveys were also coded for themes related to reported teaching practices, such as specific strategies that teachers are using or issues arising from the professional development course. Several of the items which asked teachers for definitions or characterizations (particularly that of academic literacy itself) were categorized and plotted in order to track the convergence or divergence of ideas over time.

Student Assessment Scoring

Individual student's pre- and post-tests were matched; unpaired tests were not scored. The paired tests were then remixed and scored by a team of scorers using the 11-scale rubric. 20% of the assessments were double-scored and any assessments deemed difficult to score by individual scorers were group-scored. The percentage of >1 discrepancies between any two scorers was calculated and never greater than 7%. All >1 discrepancies were rescored by the group and resolved. (The Lin's concordance coefficient for year one was .94, and for year two, with a larger group of scorers and papers, was .92.)

Once all student assessments were scored, we looked at basic correlations of student assessment pre-post gains with a variety of teacher and student variables, and compared the average gains by classroom, school, cohort and discipline. The more complex analyses of pre-post student gains were computed and averaged within each of the four sub-areas, producing five combined scores instead of eleven individual scores. There was one score each for:

- academic literacy,
- arts content knowledge,
- critical thinking,
- writing,
- and a holistic score.

Quantitative Analysis

Most of the survey rating data were analyzed using basic descriptive statistical procedures, comparing means using one- or two-way ANOVA. We looked at the results within cohorts and within disciplines, as well as across treatment and comparison groups. Hierarchical linear model (HLM) analyses were performed to provide evidence related to the impact of DREAMS on

student achievement and the factors associated with observed student outcomes. HLM analysis was used to take into account the hierarchical nature of the data with students (level-1) nested within teachers (level-2). The level-1 model used predicted gain in score for students from pre- to post-test using cohort and discipline as covariates, and teacher as a random intercept (so teachers were modeled as having a fixed effect on student scores). The model was run on the five condensed scores listed above. In the level-2 model, the intercept of the level-1 model was regressed on teacher covariates, namely, (a) which cohort the teacher was in and (b) various teacher background and practice variables. Effects were disaggregated by student demographic subgroups, e.g., EL status versus not-EL status.

Results

III. a. Teacher Reactions to the Professional Development

When surveyed and interviewed about their professional development experience, teachers were generally very positive. Most teachers stated that they learned valuable new lesson-planning approaches, classroom activities, and academic-literacy teaching and assessment techniques. Over half the teachers in Cohorts 1 and 2 gave the highest rating (excellent, extremely valuable) to three elements of the professional development in particular: the model lessons (64% and 56% respectively); the discourse model (a routine wherein students reflect on and discuss a topic before writing—58% and 88% respectively); and the discussions with other teachers in their arts discipline (83% and 88% respectively). These ratings were quite a bit lower for Cohort 3. For example, 75% of Cohort 1 and 78% of Cohort 2 gave the highest possible rating for the overall professional development experience, while only 25% of Cohort 3 did.

When asked about the PD's effectiveness in changing their teaching practice, most treatment teachers stated that they found the main four elements effective, and a majority (60-75%) of all three cohorts found them *extremely effective*. Cohorts 1 and 2 found DREAMS' approach to “critical thinking, synthesis, and conceptual application” to be the most effective element; Cohort 2 stated that the course was equally effective in helping them “adapt their teaching strategies to the various needs of literacy needs.” Cohort 3 found the course most effective in helping them “consider their students' level of academic literacy when creating instructional plans.”

In open-ended interviews, teachers most frequently stated that, because of what they learned in the professional development, they now:

- Have a deeper understanding of the VAPA standards,
- Include more frequent in-class discussion and writing activities in their courses,
- Have learned new approaches for using and assessing writing in the arts classroom, and
- Understand the importance of academic literacy to the arts.

In response to open-ended questions on interviews and surveys, we also found evidence of decreasing teacher ambivalence about the role of academic literacy in artistic achievement and an increase in teacher emphasis on the importance of academic literacy. By the end of the professional development, almost all teachers in all three cohorts agreed that it was their job to teach students how to speak and write about the arts (34—an increase of 4) and agreed that

devoting class time to thinking about the arts was important (29 of 31—an increase of 5). In the comparison group, the ambivalent minority remained ambivalent about both (3 of 7—no increase). Surveys provided further evidence of change in teacher attitudes toward academic literacy in the arts. A compound mean score was constructed based on ratings from 1 (*strongly disagree*) to 6 (*strongly agree*) on the following eight survey items:

- Students in my classes can meet *Artistic Perception* and *Aesthetic Valuing* standards without strong language skills in their discipline;
- It is important for my students to have a variety of writing opportunities during class;
- Reducing rehearsal or studio time so that students can think about their work ultimately improves their creative expression;
- It is not my job to teach students how to speak and write about the arts. (scale reversed)
- Students in my classroom are not able to discuss their work using appropriate arts vocabulary; (scale reversed)
- It is important for my students to be able to think critically about the arts.
- Focusing on developing academic literacy in the arts will not increase my students’ critical thinking skills; (scale reversed)
- It is important for my students to learn how to present and defend an oral argument in my class.

As shown in Table 6, while there was no significant difference between treatment and comparison teachers’ mean ratings of these items on the pre-survey, there was on the post ($p = .01$).

Table 6
Teachers’ Mean Ratings on Survey Questions About Attitudes Toward Academic Literacy

Measurement point	Treatment ($n = 26$)	Comparison ($n = 8$)	p
Pre-test	4.63	4.45	.49
Post-test	4.98	4.42	.01

Note. Rating is a compound score based on eight survey items, each rated from 1 (*strongly disagree*) to 6 (*strongly agree*).

Observations and interviews also helped both researchers and professional development instructors understand the profound initial reluctance that many arts teachers felt about doing writing activities with their students. Many felt insecure about their own grammar and spelling and therefore not confident about correcting their students’ grammar. As a result, they were reluctant to assign any writing in their classes. The professional development helped teachers look beyond correcting grammar and become more confident teaching academic literacy by introducing a variety of different writing activities—including free-writing in response to aesthetic experiences, journaling, and persuasive and reflective writing—and by stressing that supporting academic literacy meant supporting students’ thinking and expressive skills. By redefining academic literacy for the teachers and stressing the conceptual skills and arts understanding entailed in arts academic

literacy, the professional development helped teachers re-evaluate and appreciate their own strengths in these areas. As one teacher stated:

It's made academic literacy more approachable for me. I used to get hung up when I heard academic and literacy together and I thought that it was writing. And it's not. It doesn't have to be. Although that's a great measure for it, I understand that I'm not evaluating or assessing the writing, it's the understanding of concepts more at the heart of the discipline. [T31]

We found that teachers who felt like second class citizens in relation to other subject teachers were less likely to be confident about emphasizing academic literacy with their students, and that the inverse was also true. DREAMS was most effective with participants who began the course with a stronger understanding of academic literacy, and who primarily wanted to know more about the kinds of activities and strategies that might effectively develop student skills. The teachers with stronger understandings of academic literacy tended to be the same teachers who agreed with statements such as, "What students learn in my class supports their learning in other classes." They were teachers who had a more positive self-image as arts teachers. They also tended to be teachers who were aware of the perceptual and conceptual skills their art form required, and could break down *Artistic Perception* and *Aesthetic Valuing* into discrete higher-order thinking skills. The professional development course was less effective with teachers who knew less about academic literacy to start with, and/or who had more negative associations with academic literacy, but these teachers indeed stated that they benefited from the course and that the course changed how they thought about academic literacy.

Some teachers, often those in music and dance, confided that they had never used writing activities as part of their curriculum. As one teacher said, "The program makes you more open to using writing within the dance curriculum, which I'm totally not used to doing." [T 65] Because many arts teachers feel isolated at their schools, as they are often the only teacher in their discipline, this was an area where collaboration with other teachers was particularly valuable. As one teacher put it: "The real help . . . when we're thinking about creative writing is asking other musicians or other teachers . . . what do you do in your class." [T 60] We found that even teachers who already used writing regularly with their classes stated that they benefited from the course, in that it helped them make their instruction deeper and more effective. It is a regular practice of The California Arts Project professional development instructors to ask some teacher participants to return as teacher mentors and cadre leaders in future courses, which helps these teachers continue to deepen and refine course learning. One returning teacher stated about DREAMS:

The program was excellent and helped us to understand the *complexity* of what we need to do [in order to] expect deeper understanding. It takes tremendous planning and effort to be truly effective. Surface teaching results in shallow results and lack of understanding. Asking questions and requiring students to DISCOVER and UNCOVER truth for themselves is the key to discovery. [T14]

Finally, a few teachers in each cohort had participated in previous The California Arts Project CDIs, and we asked them if having DREAMS as a pre-course helped make the CDI easier or different in any way. Likewise, we asked those who hadn't if DREAMS had affected their lesson

development. Generally, teachers said that having the DREAMS course before the CDI *did* make the CDI easier or more effective, because the standards themselves focused on academic literacy skills to such a great extent. As one teacher stated:

The CDI lesson studies were important, but if I hadn't learned about academic literacy in the beginning, I don't think I would have understood the whole thing And before I started designing the unit with my cadre, academic literacy activities were already implemented . . . which helped the unit become even more successful for my class. [T25]

At the end of the course, over half the teachers (56%) stated that their greatest frustration was the low level of academic literacy with which most of their students come to class and many (44%) cited the lack of support and understanding from their administrations and colleagues for the academic work they undertake with their students.

III. b. Selection Bias and Recruitment Issues

Recruitment for this study was very challenging, in part because of the intensive (~200 hour) commitment required from teachers, combined with the lack of stipend to compensate them for completing the professional development and data collection components. It was also difficult finding comparison group teachers at the same schools who (a) had never attended a The California Arts Project CDI, and (b) were willing to give up two periods each year for the student assessments. Attrition was also relatively high among the treatment groups because of the large commitment and summer meetings required. There is no doubt that, statistically, our results would have been more robust and generalizable, and further subgroup comparisons possible, had the numbers in each of four groups been higher, and the representation across arts disciplines more equivalent.

Another problem for the study was that many teachers saw the two components of the professional development as self-contained and separate. Some teachers who had participated in the CDI in the past signed up for DREAMS and then dropped out, or they only signed up for the CDI during the study period. In particular, several members of Cohort 3 stated during DREAMS that they had never intended to attend the rest of the CDI. Original and final numbers are presented in Table 4 above.

A number of statistical tests were run to determine the relative equivalence of the comparison and treatment groups after attrition (see Table 7). We compared treatment and comparison groups with respect to school Academic Performance Index, average student California High School Exit Exam scores, and average poverty index and found these measures to be statistically equivalent across groups (all $p > 0.05$). Class writing levels of treatment and comparison students, as rated by their teachers, were statistically equivalent; the majority of teachers in all groups rated their students as “basic” writers. Comparison group teachers' attitudes toward academic literacy, based on their answers to a series of Likert questions, were similar to those of treatment teachers on the pre-survey.

On one measure, comparison teachers seemed at first to have an advantage over treatment group teachers the first year: their students' pre-test scores on the student assessment were higher than treatment teachers' students' scores, particularly higher than Cohort 1's. The second year, the pre-test scores for all four groups were statistically equivalent (see Table 8). In the study, we compared student gains rather than student post-test scores, effectively controlling for this difference in Year 1.

Table 7
Comparability Between Treatment and Comparison Groups

Measure	Treatment (n = 26)	Comparison (n = 8)	p
Academic Performance Index	652.2	640.5	0.62
Language Arts California High School Exit Exam	71%	70%	0.88
Proportion of students receiving free or reduced lunch	54%	66%	0.10
Class student writing level ^a	2.37	2.38	0.98
Teacher attitudes toward academic literacy on pre-PD survey ^b	4.63	4.45	0.49

^a Four point scale from 1 (*remedial*) to 4 (*advanced*).

^b Compound score based on scale from 1 (*very negative*) to 6 (*very positive*).

Table 8
Comparability of Student Holistic Pre-test Writing Assessment Scores for Treatment and Comparison Groups

Study year	Pre-test mean score				p
	Cohort 1	Cohort 2	Cohort 3	Comparison	
1	2.37	2.66	-	2.89	.0005
2	2.67	2.71	2.66	2.73	.53

III. c. Teacher Content Learning

Learning about the Visual and Performing Arts Standards

Teachers participating in DREAMS and the CDI developed a better understanding of the VAPA standards, particularly the two strands of the standards emphasized in the professional development—*Artistic Perception* and *Aesthetic Valuing*. This was shown in their responses to survey content questions that required teachers to identify examples of each (see Table 9).

We assessed teacher learning about academic literacy in several ways. We asked teachers in both interviews and surveys for a working definition of academic literacy, to identify academic literacy skills in the arts standards, and to name specific strategies they use to improve student academic

literacy skills. In this way, we tracked the development of teacher knowledge about academic literacy over time, in both simple and more complex applications.

Table 9
Teachers' Mean Percent Correct on Knowledge of California Content Standards in Visual and Performing Arts

Standard	Cohort			Comparison group
	1	2	3	
<i>Artistic Perception</i>				
Pre	33%	45%	0%	33%
Post	67%	56%	50%	-
<i>Aesthetic Valuing</i>				
Pre	64%	73%	75%	50%
Post	71%	78%	88%	-

Defining academic literacy

The professional development curriculum was designed to foster a shift in teacher understandings of academic literacy away from a common confusion with basic literacy (the ability to read and write) and an emphasis on arts vocabulary knowledge. Ideally, teacher definitions would move toward students' ability to conceptualize and articulate ideas in terms of their arts discipline and/or as the set of functional discourse skills (analyze, interpret, describe, etc.).

There is evidence that Cohort 2 and 3 teachers changed the way they defined academic literacy to a greater extent than did Cohort 1 teachers (see Figures 3-5), whose initial emphasis on disciplinary vocabulary seemed to include a more comprehensive understanding. This shows that the conscious changes that instructors made in focusing and strengthening the academic literacy features of the course did, in fact, pay off. It is interesting that the notion of academic literacy as a set of functional discourse skills did not become the primary definition for any of the cohorts.

Similar trends were seen in teacher responses when they were asked for specific strategies to strengthen student academic literacy. Teachers in all three cohorts demonstrated a shift away from an exclusive focus on vocabulary to the more comprehensive strategies recommended in the course. We also asked teachers to identify academic literacy skills necessary for students to achieve the specific requirements of the *Artistic Perception* and *Aesthetic Valuing* standards. On the final interview, 13 out of 21 treatment teachers gave what we considered strong answers to this question, in which they identified at least one specific academic literacy skill, whereas only 3 out of 21 were able to do so on the first interview. When asked to offer suggestions for a colleague for strengthening academic literacy skills, almost twice as many teachers did so after the professional development than before (see Table 10).

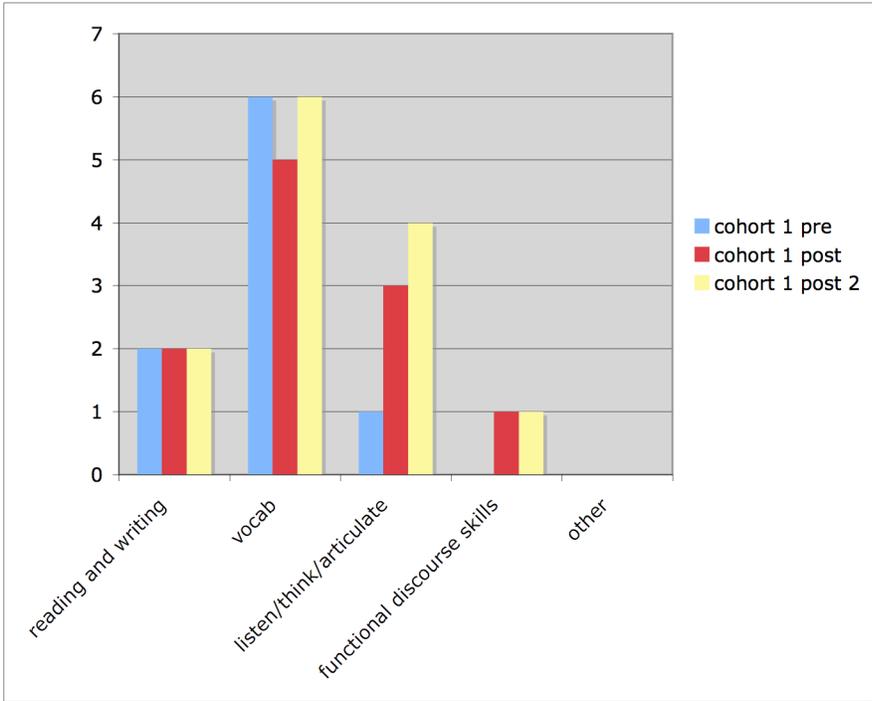


Figure 3. Pre-post changes in Cohort 1 teachers' definitions of academic literacy in the arts.

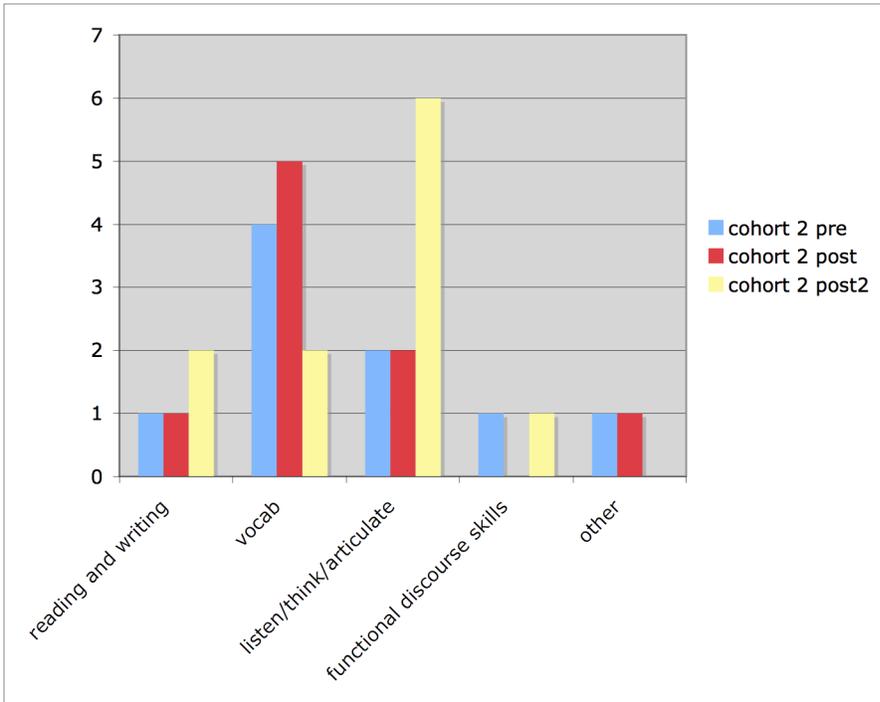


Figure 4. Pre-post changes in Cohort 2 teachers' definitions of academic literacy in the arts.

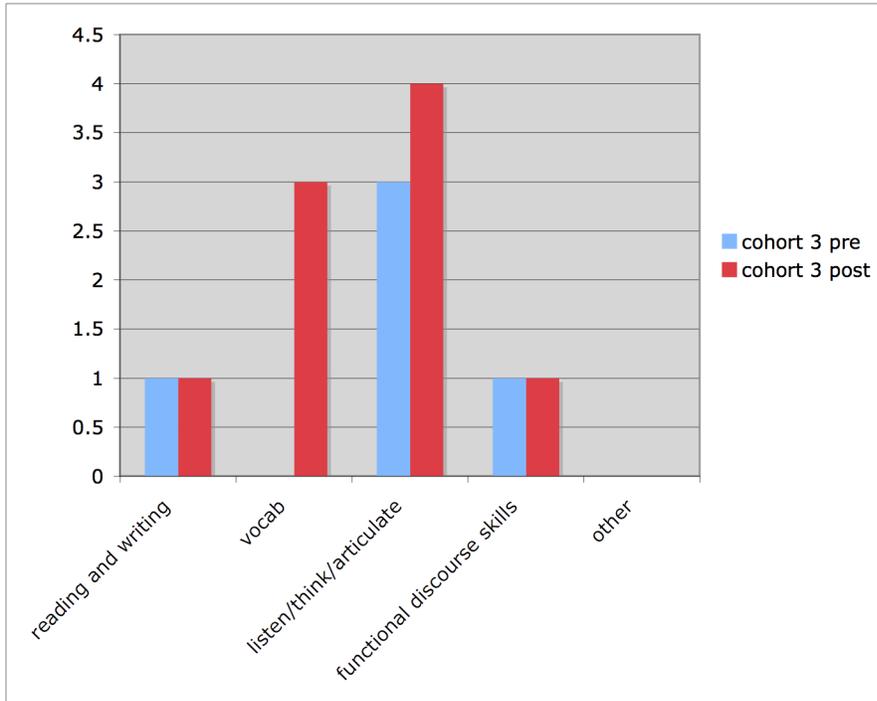


Figure 5. Pre-post changes in Cohort 3 teachers' definitions of academic literacy in the arts

Table 10

Number of Teachers Offering Specific Suggestions for Strengthening Academic Literacy Skills

Measurement point	Treatment	Comparison
Pre-test	8 of 26	3 of 5
Post-test	15 of 26	3 of 5

Finally, teachers were better able to explain the role that academic literacy plays in arts achievement in post interviews than they were in pre interviews, and they provided many concrete examples from their experience in the DREAMS professional development. For example:

I think that increasing academic literacy does help with [students'] creative performance. I think it gets them to start thinking more deeply about what they're making, what they're doing. It just gets them to dive deeper. [T04]

Performing [in dance] is an art that is both physical and mental. I think academic literacy gives the artist the opportunity to expand and broaden their quality of performance. . . . Artistry is a continual process and the famous and memorable artists of our times all use some form of reading, writing, listening or speaking to improve their craft. [T09]

I believe that academic literacy sharpens the student's skills by presenting to the student a deeper way of understanding their work; it allows the student to examine, enhance or change the work through discussion, exploration, or critical examination. [T08]

It is important to note that these treatment teachers defined academic literacy in arts-professional terms as integral to creative and expressive artistic processes, rather than as an added academic skill or as relevant only to the school setting.

III. d. Implementation: Evidence of Changing Teacher Practices

Teacher Reports of Implementation

Questions on the survey asked teachers whether they implemented specific practices and strategies that were recommended in DREAMS as ways to strengthen and assess student academic literacy. The graphs in Figures 6-8 show how treatment and comparison (shown as “control”) teachers responded to the pre- and post-surveys.

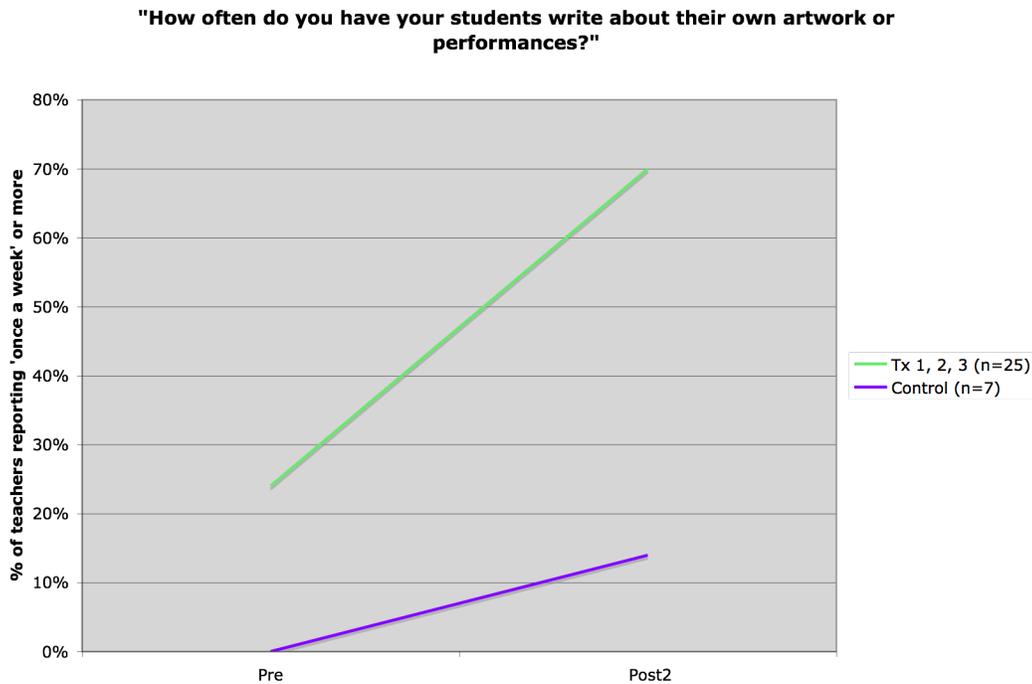


Figure 6. Pre- and post-survey responses of treatment and comparison teachers regarding frequency of in-class writing assignments.

"How often do you have your students spend classroom time discussing their work or the work of others using the language of the discipline?"

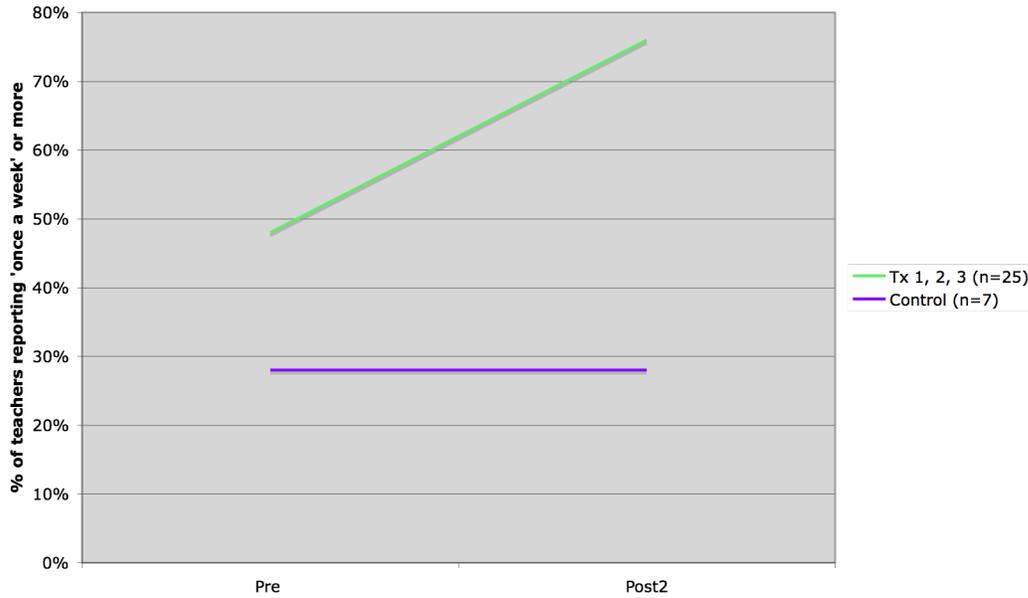


Figure 7. Pre- and post-survey responses of treatment and comparison teachers regarding frequency of in-class discussions about art works

"How often do you have your students compare and contrast a variety of genres, styles, or cultures?"

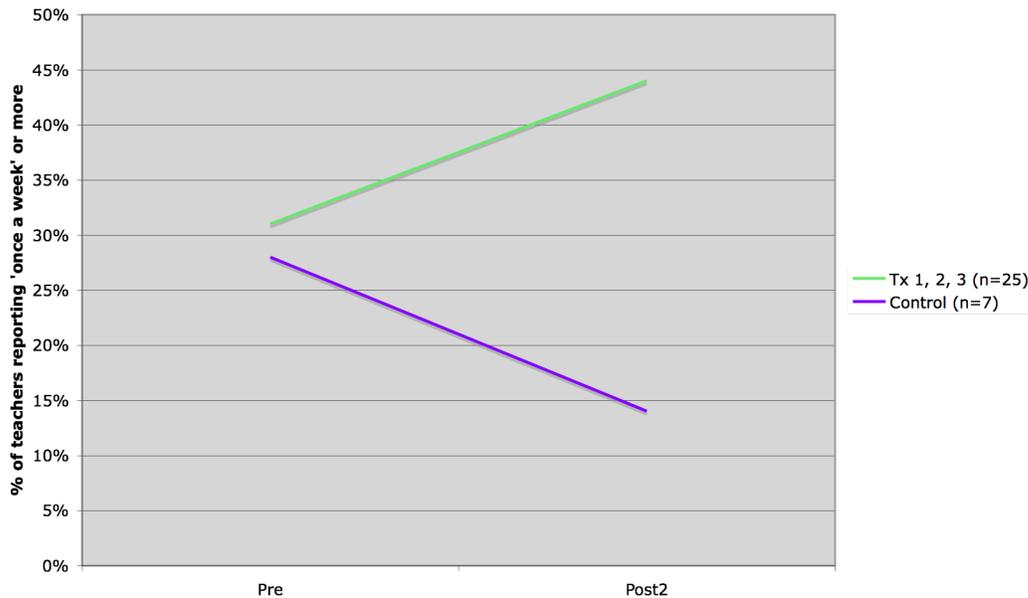


Figure 8. Pre- and post-survey responses of treatment and comparison teachers regarding frequency of in-class comparison of genres, styles, or cultures

Student Reports of Classroom Writing

On the student assessment we asked students how often they write in their arts classes, and found that treatment and comparison group students reported generally similar frequencies, except in dance, where treatment students reported far more frequent writing than students in comparison classrooms (see Figure 9). When we asked students about the different types of writing they did in each class, we found that treatment and comparison classrooms looked quite different (see Figures 10, 11, 12, and 13 for dance, music, theater, and visual arts, respectively). Far more students in treatment classrooms reported doing the types of conceptual and reflective writing advocated in the professional development, such as reviews of art works, critiques, in-class reflections on works of art, free writing, journaling, and even essay writing. One exception was in visual arts, in which writing of in-class reflections and critiques was reported by at least as many comparison students as in treatment classes.

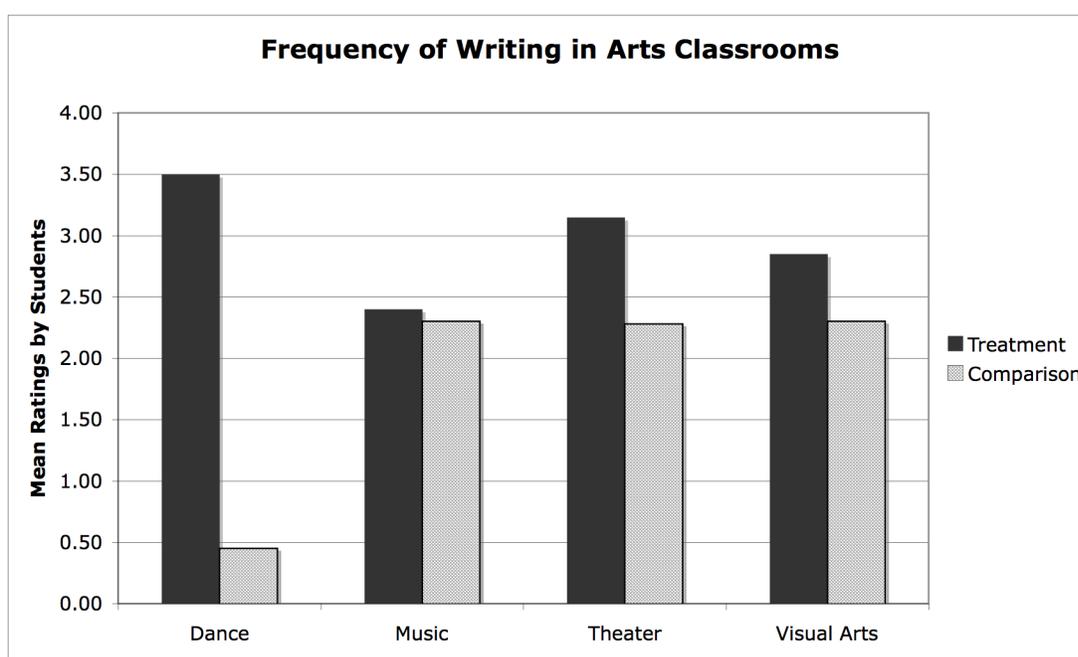


Figure 9. Students' ratings of in-class writing frequency in Year 2, on scale from 0 (*never*) to 5 (*every day*)

In summary, overall, teacher response to the course was very positive. There is evidence that teachers learned a good deal about the importance of academic literacy in the arts, and became less ambivalent about teaching academic literacy in their classes. They learned specific strategies for teaching and assessing academic literacy and how to identify the academic literacy skills required to achieve the standards. According to both teachers and students, treatment group teachers put these lessons into practice with their students. They reported increasing the frequency of in-class writing and discussion activities and emphasizing the types of writing activities that practice specific communicative skills and require greater conceptual application. However, Cohort 3 did not rate the course as highly as the previous cohorts, their content learning was less notable overall, and there is evidence that they did not implement the practices advocated by the

DREAMS professional development as readily as the other cohorts. It is likely that Cohort 3 was affected by the high degree of attrition after the end of the first component.

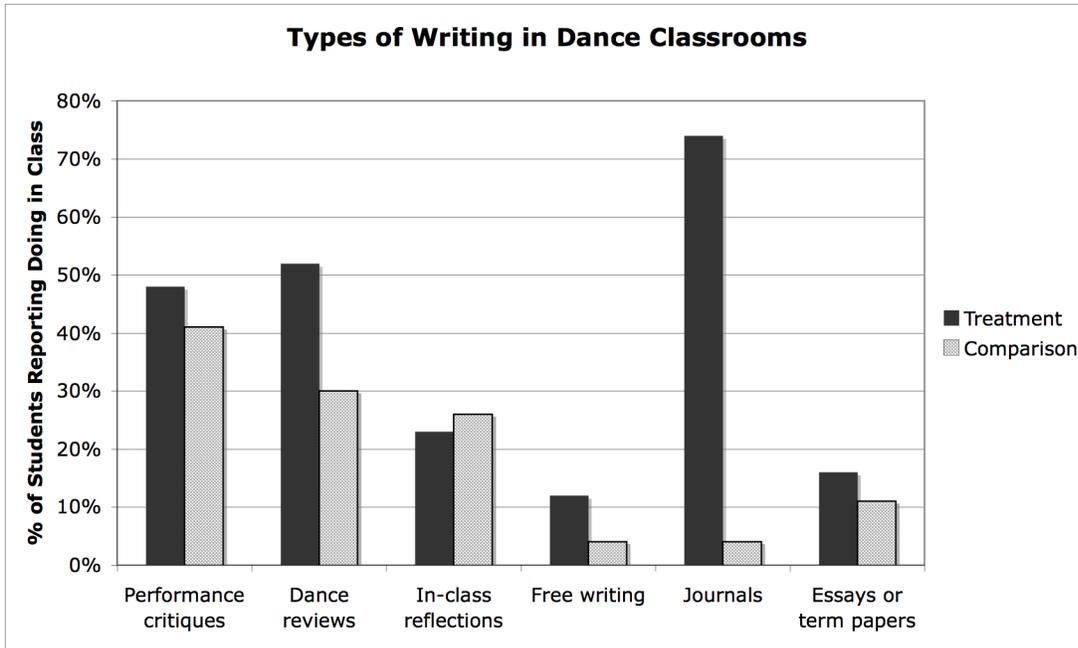


Figure 10. Percent of treatment and comparison students reporting each type of in-class writing in dance classrooms in Year 2

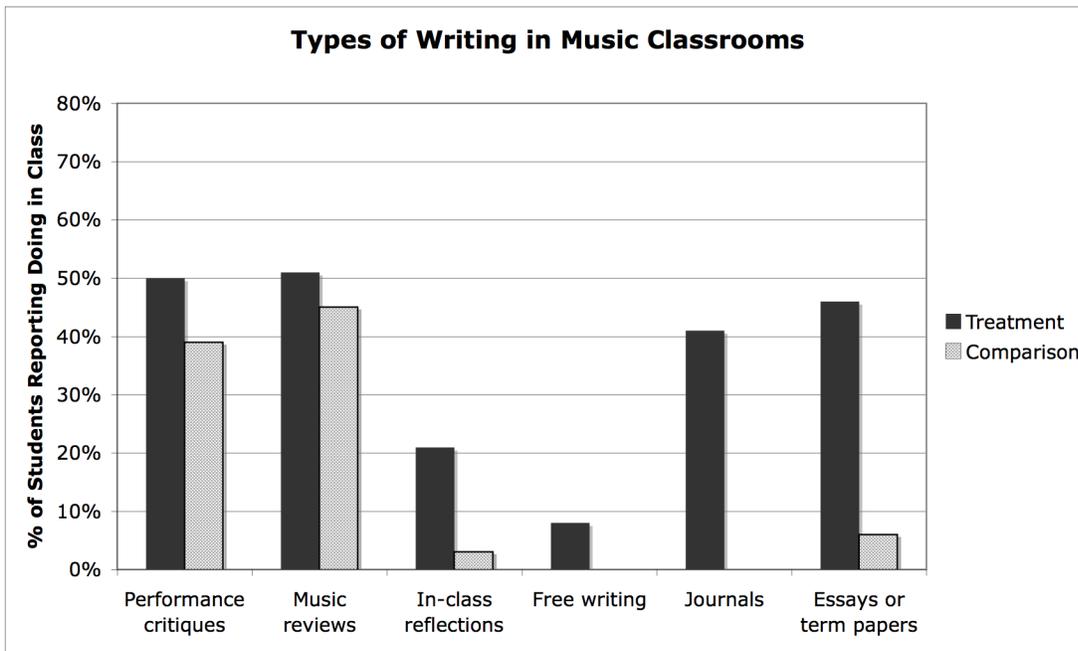


Figure 11. Percent of treatment and comparison students reporting each type of in-class writing in music classrooms in Year 2

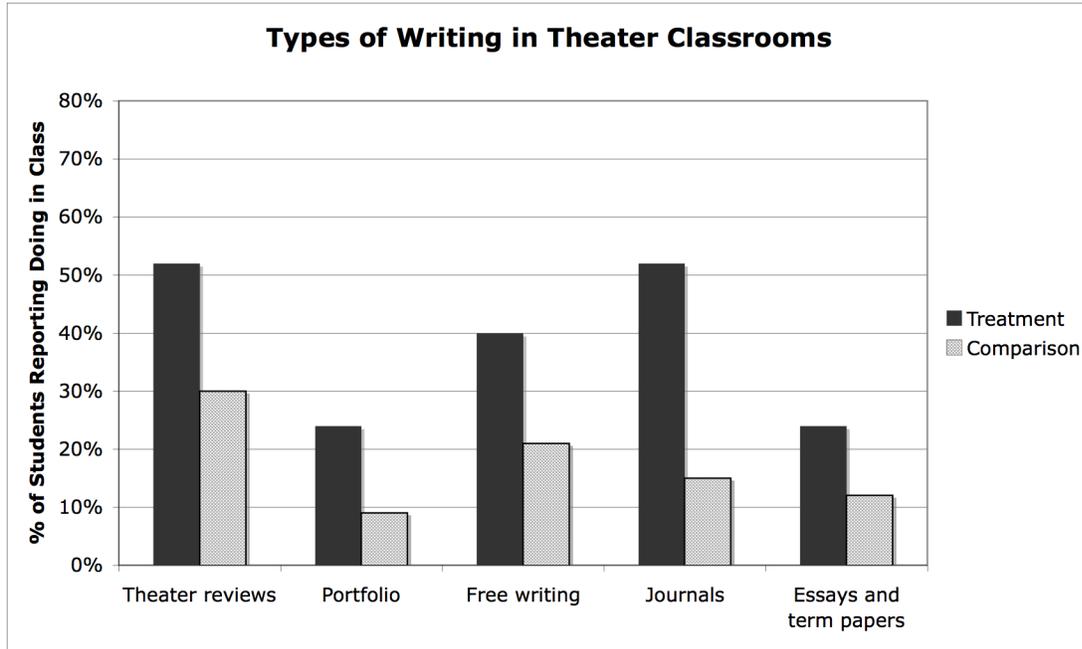


Figure 12. Percent of treatment and comparison students reporting each type of in-class writing in theater classrooms in Year 2

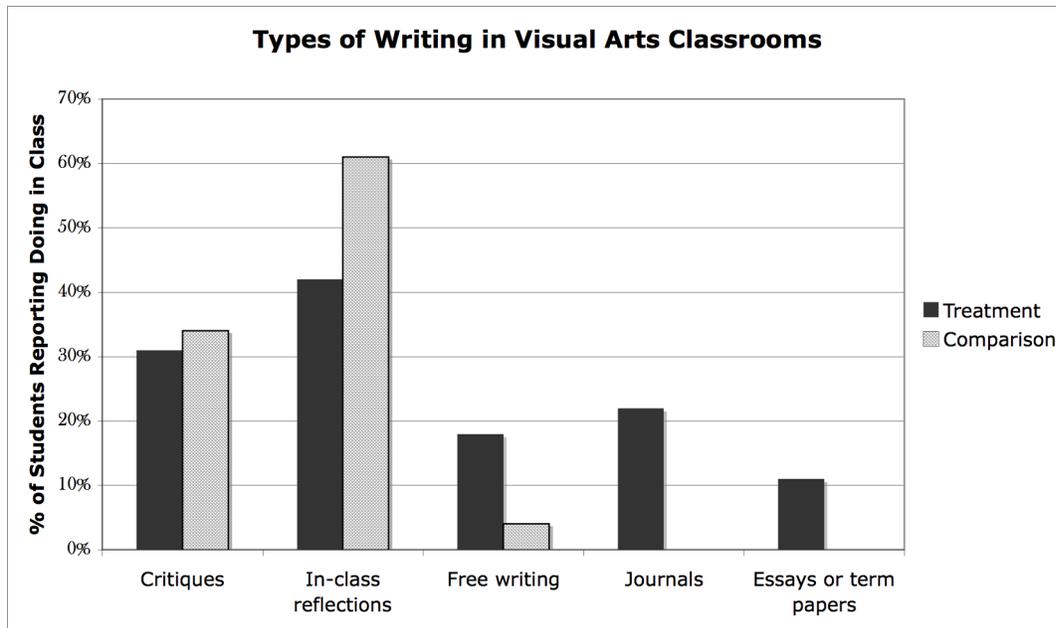


Figure 13. Percent of treatment and comparison students reporting each type of in-class writing in visual arts classrooms in Year 2

III. e. Student Achievement Findings

Student achievement was measured using written assessments that required the application of academic literacy in the arts in each arts discipline (see Appendix 2). Trained scorers rated students' written responses using a scoring rubric comprised of four scales—*Academic Literacy*, *Academic Content Knowledge*, *Critical Thinking*, and *Writing Skills*, plus a holistic rating. The rubrics differed only in the *Academic Literacy* scale across the four arts disciplines, with the other scales remaining essentially the same (holistic wording varied slightly).

Mean scores for students of teachers in Cohorts 1 and 2 and the comparison group for all subscales combined are provided in Table 11. Cohort 1 students increased .32 points from pre-test to post-test; gain scores for Cohort 2 and the comparison group are close to zero. HLM models were run to investigate whether there was a difference in the average gain in assessment scores for students taught by teachers in the treatment groups, over those in the comparison group. The model was run on the overall scores of students, collapsing all 11 rubric categories into a single total. (Note that this weights the subcategories differently, depending on how many ratings were in each of those subcategories. For example, *Writing Skills* was weighed heavily with four scores comprising this scale, while *Critical Thinking*, with one score, was less heavily weighted.)

This model indicated a significant gain due to treatment for Cohort 1 over comparison ($p < 0.05$); there was no evidence of treatment effects for Cohort 2. The gain for Cohort 1 was 0.26 ± 0.25 points on the 5-point scale. The standard deviation of student gain for Cohort 1 was estimated to be about 0.68, meaning all other things being equal, a random student would be about ± 0.68 away from the prediction due to the model. Also, the effect of teachers tended to be around 0.19 points, meaning a reasonably good teacher could be expected to raise the predicted mean of his or her students by around 0.2 points. The Cohort 1 results indicate that the DREAMS program could meaningfully improve teachers' instructional practices in a way that raises student achievement.

Table 11
Mean Student Writing Assessment Scores by Treatment

Group	Pre-test	Post-test	Change
Cohort 1	2.39	2.71	+0.32
Cohort 2	2.68	2.74	+0.06
Comparison group	2.84	2.87	+0.03

Average student gains from pre-test to post-test in each of the five writing scales, weighted by teacher, are shown for students of teachers in the treatment and comparison groups in Table 12 and Figures 14-15. These results indicate that students of treatment group teachers consistently outperformed comparison students on every subscale in both years.

Table 12

Mean Student Writing Assessment Scale Pre-test-to-Post-test Gain Scores by Treatment Group

Assessment scale	Year in study	Mean student gain	
		Treatment	Comparison
Holistic	2007-08	0.37	-0.08
	2008-09	0.31	-0.08
Academic Literacy	2007-08	0.34	-0.06
	2008-09	0.32	-0.10
Academic Content Knowledge	2007-08	0.31	-0.06
	2008-09	0.18	0.02
Critical Thinking	2007-08	0.33	-0.00
	2008-09	0.30	0.26
Writing Skills	2007-08	0.24	0.04
	2008-09	0.23	0.02

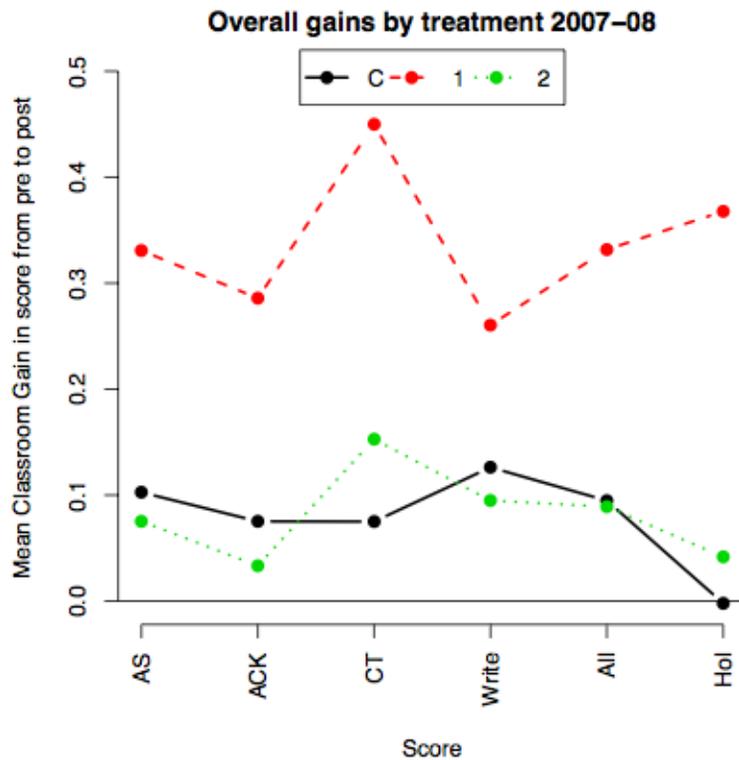


Figure 14. Mean student gains in Year 1 from pre-test to post-test on writing assessment scales (AS=Academic Literacy, ACK=Arts Content Knowledge, CT=Critical Thinking, All=average of all analytic scores, Hol=Holistic)

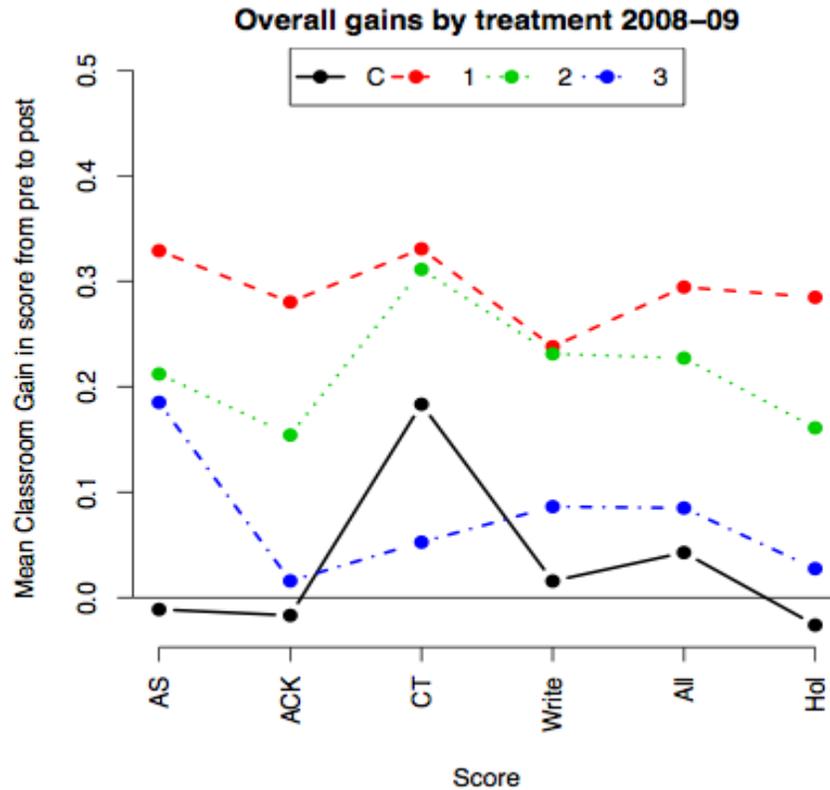


Figure 15. Mean student gains in Year 2 from pre-test to post-test on writing assessment scales (AS=Academic Literacy, ACK=Arts Content Knowledge, CT=Critical Thinking, All=average of all analytic scores, Hol=Holistic)

Note that, while the teachers were still taking the entire professional development (which for Cohort 2 was in 2007-08 and for Cohort 3 was 2008-09), their student gains were pretty similar to those of the comparison group, and both were close to zero. After teachers finished the CDI and began to implement what they learned, their students' gains increased. By Year 2, students of Cohort 2 did nearly as well as Cohort 1, who maintained their increased gains. The students of the comparison group did slightly better the first year than they did the second year, except for the interesting spike in their critical thinking scores. And surprisingly, given that Cohort 3 expressed less satisfaction with the course and a lower intent to implement, their students did as well as Cohort 2 students on the academic literacy scales.

Looking at individual sub-scores, we found that students' holistic scores tended to mirror their arts content knowledge scores, which is especially clear in the second year graph, and it may be true that scorers are strongly influenced by subject knowledge and the quality of the ideas in their holistic scores.

Of the four writing scores, we found that students usually scored more or less consistently for *Completeness*, *Structure*, and *Fluency*, but much higher for *Conventions*. Some variation in the critical thinking scores may be a result of differences in how scorers applied the scale in Year 1

versus Year 2, and in both years the scorers spent a disproportionate amount of time at calibration meetings discussing its application.

III. f. Teacher Variables Correlated with Higher Student Gains

The main teacher variables that correlated positively with higher student gains were:

- Higher frequency of in-class writing,
- Higher frequency of in-class discussion,
- Higher frequency of in-class critical thinking activities, and
- Prior California Arts Project experience.

The relationships between frequency of in-class writing and gains in academic literacy scores are shown in Table 13 for *Holistic* scores, followed by results for the four scales—*Academic Literacy*, *Academic Content Knowledge*, *Critical Thinking*, and *Writing Skills*—in Tables 14-17. While the numbers are too small for meaningful statistical comparisons, there was a tendency in both study years toward higher average student gains in classrooms with more frequent writing activities. This pattern is clear in Table 18, in which gains are averaged across the four analytic subscales and the four writing-frequency levels are collapsed to two.

Table 13
Mean Holistic Scale Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
“About once a course”	-	-0.31 (<i>n</i> = 1)
“Once a month”	0.37 (<i>n</i> = 4)	0.06 (<i>n</i> = 5)
“Once a week”	0.24 (<i>n</i> = 13)	0.00 (<i>n</i> = 1)
“Every class meeting”	0.44 (<i>n</i> = 1)	-
Mean for 2007-08	0.37	-0.08
2008-09		
“About once a course”	-	-0.38 (<i>n</i> = 1)
“Once a month”	0.14 (<i>n</i> = 8)	0.06 (<i>n</i> = 5)
“Once a week”	0.20 (<i>n</i> = 14)	0.08 (<i>n</i> = 1)
“Every class meeting”	0.44 (<i>n</i> = 2)	-
Mean for 2008-09	0.31	-0.08

Table 14

Mean Academic Literacy Scale Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
"About once a course"	-	-0.38 (<i>n</i> = 1)
"Once a month"	0.22 (<i>n</i> = 4)	0.22 (<i>n</i> = 5)
"Once a week"	0.20 (<i>n</i> = 13)	-0.01 (<i>n</i> = 1)
"Every class meeting"	0.60 (<i>n</i> = 1)	-
Mean for 2007-08	0.34	-0.06
2008-09		
"About once a course"	-	-0.33 (<i>n</i> = 1)
"Once a month"	0.28 (<i>n</i> = 8)	0.06 (<i>n</i> = 5)
"Once a week"	0.21 (<i>n</i> = 14)	-0.04 (<i>n</i> = 1)
"Every class meeting"	0.48 (<i>n</i> = 2)	-
Mean for 2008-09	0.32	-0.10

Table 15

Mean Academic Content Knowledge Scale Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
"About once a course"	-	-0.50 (<i>n</i> = 1)
"Once a month"	0.29 (<i>n</i> = 4)	0.18 (<i>n</i> = 5)
"Once a week"	0.15 (<i>n</i> = 13)	0.15 (<i>n</i> = 1)
"Every class meeting"	0.50 (<i>n</i> = 1)	-
Mean for 2007-08	0.31	-0.06
2008-09		
"About once a course"	-	0.35 (<i>n</i> = 1)
"Once a month"	0.17 (<i>n</i> = 8)	-0.04 (<i>n</i> = 5)
"Once a week"	0.16 (<i>n</i> = 14)	-0.26 (<i>n</i> = 1)
"Every class meeting"	0.22 (<i>n</i> = 2)	-
Mean for 2008-09	0.18	0.02

Table 16

Mean Critical Thinking Scale Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
"About once a course"	-	-0.38 (<i>n</i> = 1)
"Once a month"	0.33 (<i>n</i> = 4)	0.13 (<i>n</i> = 5)
"Once a week"	0.34 (<i>n</i> = 13)	0.25 (<i>n</i> = 1)
"Every class meeting"	0.31 (<i>n</i> = 1)	-
Mean for 2007-08	0.33	-0.00
2008-09		
"About once a course"	-	-0.08 (<i>n</i> = 1)
"Once a month"	0.19 (<i>n</i> = 8)	0.12 (<i>n</i> = 5)
"Once a week"	0.23 (<i>n</i> = 14)	0.76 (<i>n</i> = 1)
"Every class meeting"	0.48 (<i>n</i> = 2)	-
Mean for 2008-09	0.30	0.26

Table 17

Mean Writing Skills Scale Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
"About once a course"	-	-0.13 (<i>n</i> = 1)
"Once a month"	0.20 (<i>n</i> = 4)	0.18 (<i>n</i> = 5)
"Once a week"	0.17 (<i>n</i> = 13)	0.08 (<i>n</i> = 1)
"Every class meeting"	0.36 (<i>n</i> = 1)	-
Mean for 2007-08	0.24	0.04
2008-09		
"About once a course"	-	-0.06 (<i>n</i> = 1)
"Once a month"	0.14 (<i>n</i> = 8)	0.02 (<i>n</i> = 5)
"Once a week"	0.16 (<i>n</i> = 14)	0.02 (<i>n</i> = 1)
"Every class meeting"	0.40 (<i>n</i> = 2)	-
Mean for 2008-09	0.23	0.02

Table 18

Grand Mean of All Pre-to-Post Gain Scores in Writing for Students in Treatment and Comparison Groups, by Students' Reported Frequency of In-Class Writing Activities

Frequency of in-class writing	Mean student gain	
	Treatment	Comparison
2007-08		
Less often: <i>Once a month to About once a course</i>	0.26 (n = 4)	-0.17 (n = 6)
More often: <i>Every class meeting to Once a week</i>	0.66 (n = 14)	0.12 (n = 1)
2008-09		
Less often: <i>Once a month to About once a course</i>	0.20 (n = 8)	0.01 (n = 6)
More often: <i>Every class meeting to Once a week</i>	0.50 (n = 16)	0.12 (n = 1)

A table is provided in Appendix 4 showing trends in the relationships among all the teacher variables examined and student gain scores, both by cohort and by discipline.

III. g. Internal and External Validity

In terms of internal validity, we found strong evidence that there was a direct relationship between the intervention and the effects. Students corroborated teacher self-reports of a relatively high degree of program implementation. In addition, student reports of the types of writing that were common in treatment classrooms differed from student reports from comparison group classrooms, and the difference was that treatment teachers were asking students to do the types of writing recommended by the professional development and comparison teachers were not. While there were some gains for both treatment and comparison teachers' students, gains for cohort 1's students were significantly higher, and cohort 2's and cohort 3's students tended in that direction.

In terms of generalizability, the characteristics of teachers who participated in DREAMS were similar to the characteristics of teachers who did not, based on The California Arts Project teacher background data, or to those of CDI-only participants.

Discussion

IV. a. Interpretation: Describe the Effectiveness of the Intervention Based on Evidence.

This study provides some indications that the DREAMS professional development does change teachers' knowledge and instructional practices in ways that improve students' academic literacy in the arts, but the results must be interpreted cautiously because of the small sample size. Three cohorts of teachers (a total of 24 teachers) went through the professional development experience, and statistically significant differences were found between student gain scores of the first cohort,

and gains of students in comparison teachers' classes. Tests of student outcomes were inconclusive for the second cohort, and were not included the third cohort because they did not complete their training and data collection early enough in the funding period.

There is stronger evidence, including statistically significant changes in teachers' survey ratings, that the professional development changed teachers' understanding of and attitudes toward academic literacy in the arts, resulting in substantial changes in their literacy practices. Based on teacher and student surveys as well as teacher interviews, it is evident that teachers came to understand the importance of students' abilities to think, discuss, and write in their arts disciplines. The arts teachers shifted from believing that writing should be taught by English teachers to seeing it as part of their job to teach students how to understand the fundamental concepts in their arts disciplines, and be able to speak and write about the arts. As a result, the treatment teachers reported having their students write and discuss the arts more than did comparison teachers, and treatment teachers' students reported doing far more reflective forms of writing (such as reviews and critiques of art works) in class than their comparison counterparts.

One notable result is the relatively large arts content knowledge gains of the experimental groups compared to the comparison groups. Gains were intended in *Artistic Perception*, *Aesthetic Valuing*, and critical thinking, and some improvement might be expected in writing simply as an effect of practice. However, the arts content knowledge was expected to be the same for comparison and experimental group students because those scales measure the learning of the usual content of the class. Given that academic literacy does involve conceptualizing the arts disciplines in terms of important ideas and elements, which is the essence of subject-matter knowledge, though, this result does make sense.

IV. b. Factors That May Account for the Intervention's Effects Or Lack Thereof

The intervention's effects are a function of the many strong design features of the DREAMS professional development program. The program has characteristics that have been shown to be effective in the literature on teacher professional development, such as having teachers encounter subject-matter knowledge that is included in their students' standards and curricula (*Artistic Perception* and *Aesthetic Valuing*), building an ongoing professional community of teachers that reflect together about teaching and learning, having teachers try out lessons and meet to discuss the outcomes (Birman, Desimone, Porter, & Garet, 2000; Cohen & Hill, 2001; Collias, Pajak, & Rigden, 2000). The link between academic literacy in the arts, and the arts standards of *Artistic Perception* and *Aesthetic Valuing* was a crucial component in the process of helping teachers understand and value literacy activities.

IV. c. Study Limitations

The primary limitations of this study are its small sample size, and the non-random selection and assignment of teachers to groups. Furthermore, the comparison group's means on the pre-test are not similar to the treatment group's means, possibly indicating different types of students. Whether DREAMS could be expected to have similar impact across the groups is an open question. Fundamentally, a comparison group with comparably able students to those in the treatment group would be important to validate the trends in the current study.

IV. d. Significance of the Results to Educators, Policy Makers

Academic literacy in the arts is integral to arts education and essential to student success in the *arts*. To improve students' academic literacy skills in the arts, teacher professional development must:

Improve teachers' understanding of (and comfort with) academic literacy.

Prepare teachers to help their students learn *how* to perform fundamental communicative skills such as, identify, describe, explain, analyze, etc.

Help teachers recognize the importance of developing students' abilities to think critically, write, and speak in the arts discipline.

DREAMS professional development was effective in deepening teacher content knowledge, leading to changes in their practice that appears to have improved student academic literacy, critical thinking, and writing skills. Furthermore, the impact of the professional development on the treatment teachers and students grew stronger over time.

Increasing the amount of informal writing and discussion activities in the arts classroom deepens students' arts content knowledge, and improves their ability to perceive and evaluate works and performances in their arts discipline.

Further trials would be useful, with larger numbers of teachers, particularly to track and analyze possible links between *Academic Literacy*, *Critical Thinking*, and *Academic Content Knowledge* gains.

Lessons Learned

V. Supplemental Questions

1. *What were the major unexpected changes in your project that necessitated changes to your research design? How did your research design change to accommodate these reality checks, and what was the impact on the project's overall ability to answer the research question?*

Due to low initial recruitment, the research design was changed from a group-randomized, experimental design to a quasi-experimental design. Rather than study the value added by the DREAMS component (and compare CDI-only teachers and CDI+DREAMS teachers), the study compared CDI+DREAMS teachers to a 'no treatment' comparison group. We simply did not have a large enough group of teachers recruited at the outset to carry out the experimental study. Recruitment continued to be a major challenge for the study during each successive year and cohorts got smaller rather than larger, which was perhaps not surprising given the roughly 200 hour time commitment required from the teachers. The attrition rate was relatively high, particularly for Cohort 3. More statistical subgroup comparisons could have been done had the cohort groups been larger and the arts disciplines more evenly represented. Nevertheless, the numbers met the minimum requirements for the larger and more important analyses planned.

Initially we intended to recruit a comparison group of teachers from Northern California districts, but this proved to be difficult, and we are now very glad that we didn't end up going that route. For our comparisons, it made much more sense to recruit teachers from the same districts. There were initial concerns that the comparison group was not representative or ideal, based on the first year data which showed comparison group students scoring higher on the pre-test, and comparison teacher attitudes toward academic literacy being so positive. However we found ways to control for these differences statistically, and it made the difference in student gains all the more impressive.

2. *Were there any aspects of the research that required substantial innovation? What lessons did you learn from this process?*

Our goal was not only to test arts knowledge, but to assess discipline-specific, arts-integrated applications of academic literacy skills. In order to do so, we put a great deal of effort into designing the student assessments and scoring rubrics. From designing and administering the student assessments, we learned that:

The timing of assessments matters, particularly in the performing arts. The intensity of student involvement in the arts is very project-based and varies considerably. We found that administering the assessment during the week of the big production to be a very bad idea.

The teachers' support for the assessment mattered. If teachers were confident in their students' abilities and positive about the assessment, their students generally did better on the assessment and put noticeably more effort into it.

There were special issues with the music assessment which became more obvious during scoring. We noticed a difference during the pilot phase and made some adjustments, but we would recommend another revision. As in some of the other assessments, music students are asked to choose the work of art they will write about, and in this case, they are asked to choose a favorite genre of music and the performance of a particular song they know well. We thought this would put students on an equal footing and not privilege classical music lovers over country western lovers or vice versa. However, we found that students tend to use very informal language when talking about their favorite music, leaving a lot of information about the genre implied. Most students wrote as if they were talking to friends, and the lack of more formal vocabulary and explicit references counted against them on this assessment. Certain genre choices seemed to give some students an advantage because those genres are associated with more formal registers. This was not the case in other arts disciplines.

We found that certain disciplinary features and traditional difference in school arts teaching may privilege students of one discipline over another. Looked at another way, we found evidence of contributions that participation in specific arts disciplines may make to academic learning. For example, it seems that critique and evaluation is a common routine in visual arts classrooms, and as a result, VA students did well on critical thinking generally compared to other disciplines, and their pre-post gains were smaller in this area. Theater students commonly analyze texts (i.e. scripts), so we did not see theater student gains in this area as much as we did in others. It also seems very uncommon for dance students to write critically in

their classes at all, so many students had no experience with assessments like ours, and stated that they never wrote in their classes, so pre-scores in dance tended to be very low.

Lessons learned scoring:

The rubric is complex and long, requiring a significant training period and scorer pacing to avoid burn-out. However, in our conversations with Paul LeMahieu at the National Writing Project and others, we learned that this is usually the case with complex rubrics.

Calibration meetings with the scoring team were very important on many levels. Successive rounds of double-scoring, talking through scoring as a group on ‘tricky’ assessments, and re-scoring ‘two-off’ discrepancies all helped keep the scoring group motivated and consistent. Again, this is often the case with complex rubrics.

Conceptually, arts-based academic literacy skills were pretty straightforward, in large part because the standards are so specific. Identifying arts-based critical thinking skills, however, was not at all straightforward, especially since the assessment was pretty short and many common definitions are quite abstract. We tried several different approaches with this scale, and reviewed many established CT rubrics. While our final solution was workable, it was not completely satisfying.

3. *What obstacles, if any, were overcome obtaining student data?*

Scheduling the student assessment in all 35 classrooms within a three week period was very challenging every time. Standardized testing schedules differed by school and were subject to change on short notice; in some cases the teacher herself had no idea that she wouldn't be teaching that day. We also found that giving the assessment too early or too late in the year was a problem, particularly in performing art classrooms. If the assessment is given too early, students may have no experience in the discipline and therefore be unable to even make a stab at the questions (particularly in dance); too late in the year, and both students and teachers are too distracted by the pressures and excitement of year-end projects and performances to put much effort into the assessment and scheduling is almost impossible (we learned this the hard way during our pilot year). Finally, we learned that teacher support for the assessment is extremely important. Students tend to put more effort into the assessment when teachers overtly show confidence in their students’ abilities and support for the research process.

4. *What was one of the most difficult barriers that you encountered in the course of the research due to being in an educational context? What steps were overcome this barrier, and to what extent were they successful?*

Scheduling and recruitment were our biggest challenges, as explained above. There were also issues with one district's new rules limiting teacher participating in professional development during the school year; luckily participating teachers in this district finished the CDI before this rule went into effect.

5. *What was one of the most useful and/or valuable moments or results of this research process, anticipated or unanticipated?*

Working with the professional development leaders to tighten the focus of the academic literacy component of the professional development after the first round was very rewarding for us. They made positive changes to DREAMS (clarifying their goals and adding more time for synthesizing activities) and this was reflected in teacher content learning. We also really enjoyed listening to the teachers start to “get it” about academic literacy in their interviews, become more confident as teachers of academic content, and become genuinely excited about the activities they were trying, both in the course and in their classrooms. It is always fascinating to witness the kind of conversion experience that can happen in professional development. It is never obvious at the outset which participant will become the most articulate advocate of the course content.

6. *What advice would you give to a researcher starting out on a CPEC SBR project this year?*

Use the help that is offered.

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Appendices

Appendix 1: Project and Data Collection Timeline

Appendix 2: Student Academic Literacy Assessments

Appendix 3: Scoring Rubrics for Student Academic Literacy Assessments

Appendix 4: Trends in Relationships between Teacher Variables and Student Gains

Appendix 1

Project and Data Collection Timeline

Year	Participants	Treatment	Intended outcomes	Measures
Spring 2006	Academic Literacy Part I Cohort 1 14 teachers	40 hours of professional development (5 days)	>Participants will increase their academic content knowledge in the use of writing, discourse and critical thinking in the arts classroom.	<i>PD observation</i> Teacher pre interview (Cohort 1) Teacher pre survey (Cohort 1)
Summer 2006	CDI* Cohort 1 11 teachers (3 dropped)	80 hours of professional development (10 days)	>Participants will collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	<i>PD observation</i> Teacher midway surveys (Cohort 1) Teacher midway interviews (Cohort 1)
Fall 2006	CDI Cohort 1 11 teachers	48 hours of professional development (6 days)	>Participants continue to collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	Pilot student assessments (Cohort 1)
Winter 2006	Academic Literacy Part II/CDI Cohort 1 11 teachers (3 dropped)	16 hours of professional development (2 days)	>Participants will examine and reflect on both teacher and student academic literacy learning in their units >Participants will identify and implement ways to improve their units	<i>PD observation</i> Teacher post surveys (Cohort 1) Teacher post interviews (Cohort 1)
Spring 2007	Academic Literacy Part I Cohort 2 12 teachers	48 hours of professional development (6 days)	>Participants will increase their academic content knowledge in the use of writing, discourse and critical thinking in the arts classroom. >Students of participating teachers will evidence improvements in their academic literacy skills	<i>PD observation</i> Teacher pre interview (Cohort 2) Teacher pre survey (Cohort 2) Pilot student assessments (Cohort 1)

Year	Participants	Treatment	Intended outcomes	Measures
Summer 2007	CDI Cohort 2 7 Teachers (5 dropped)	80 hours of professional development (10 days)	>Participants will collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	> <i>PD observation</i> >Teacher midway surveys (Cohort 2) >Teacher midway interviews (Cohort 2)
Fall 2007	CDI Cohort 2 7 teachers	52 hours of professional development (7 days)	>Participants continue to collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	>Student assessments (Cohort 1) >Student assessments (Cohort 2) >Student assessment (Comparison group) >Teacher pre survey (Comparison group)
Winter 2007	Academic Literacy Part II Cohort 2 7 teachers	24 hours of professional development (3 days)	>Participants will examine and reflect on both teacher and student academic literacy learning in their units >Participants will suggest ways to improve their units >Students of participating teachers will evidence improvements in their academic literacy skills	> <i>PD observation</i> >Teacher post surveys (Cohort 2) >Teacher post interviews (Cohort 2)
Spring 2008	Academic Literacy Part I Cohort 3 15 teachers	48 hours of professional development (6 days)	>Participants will increase their academic content knowledge in the use of writing, discourse and critical thinking in the arts classroom. >Students of participating teachers will evidence improvements in their academic literacy skills	> <i>PD observation</i> >Student assessments (Cohort 1) >Student assessments (Cohort 2) >Student assessments (Comparison group) >Teacher post survey (Comparison group)
Summer 2008	CDI Cohort 3 8 teachers (7 dropped)	80 hours of professional development (10 days)	>Participants will collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	> <i>PD observation</i> >Teacher midway surveys (Cohort 3) >Teacher midway interviews (Cohort 3)

Year	Participants	Treatment	Intended outcomes	Measures
Fall 2008	CDI Cohort 3 8 teachers	52 hours of professional development (7 days)	>Participants continue to collaboratively design standards-based instructional units that are based on the VAPA* standards and incorporate instructional strategies to develop students' academic literacy in the arts; they will implement, evaluate and revise their units.	>Student assessments (Cohort 1) >Student assessments (Cohort 2) >Student assessments (Cohort 3) >Student assessments (Comparison group) >Teacher pre survey (Comparison group- new teacher only)
Winter 2008	Academic Literacy Part II Cohort 3 8 teachers	24 hours of professional development (3 days)	>Participants will examine and reflect on both teacher and student academic literacy learning in their units >Participants will suggest ways to improve their units >Students of participating teachers will evidence improvements in their academic literacy skills	> <i>PD observation</i> >Teacher post survey (Cohort 3)
Spring 2009				>Teacher follow-up survey (Cohort 1) >Teacher follow-up survey (Cohort 2) >Teacher post survey (Comparison group- new teacher only) >Student assessments (Cohort 1) >Student assessments (Cohort 2) >Student assessments (Cohort 3) >Student assessment (Comparison group)

* VAPA = Visual and Performing Arts

CDI=Collaborative Design Institute

Appendix 2

Student Academic Literacy Assessments

Student Literacy Activity

Dance

Spring 2008

Today's date _____

Student name _____

Date of birth _____

School _____

Teacher _____

What grade are you in? _____

What language(s) do you speak at home?

- ₁ English is my native language.
- ₂ English is not my first language, but I speak English fluently.
- ₃ English is not my first language, but I speak English fairly well.
- ₄ English is not my first language and I do not speak it well.

By answering the questions on the next few pages, you are helping us conduct research on a teacher professional development project about academic literacy and the arts. The purpose of this exercise is to help us understand how high school students write about the performing and visual arts that they study in school. Your participation is voluntary, and your responses are completely confidential. This will not affect your grade in this course in any way and the results will not be shared with your teacher. You may withdraw from the study at any time without penalty. In order to keep your data confidential, this cover sheet with your name will be removed upon receipt by the research staff, leaving only your ID number on the next page of the survey. This cover sheet will be stored in a locked cabinet, separate from the completed survey.

I agree to participate in this study. I understand that my answers to these questions will be shared with the researchers only, and they will be kept confidential.

Signature: _____

ID: _____

ID: _____

Background Questions

- 1. **What style(s) of dance are you studying? (Check all that apply)**
₁ Classical ballet ₂ Folk/Ethnic ₃ Lyrical ₄ Modern
₅ Hip Hop ₆ Jazz ₇ Tap ₈ Other _____

- 2. **For how many years have you been taking dance lessons (either in school or outside of school)?** _____

- 3. **Have you taken dance with this teacher before?** ₁ yes ₂ no
If so, how many classes have you had with this teacher? _____

- 4. **What are your three favorite subjects in high school?**
1. _____ 2. _____ 3. _____

- 5. **What grade do you think you will get in this dance class?**

- 6. **Do you think that grade is an accurate reflection of your work in this dance class?**
₁ Yes ₂ No
because _____

- 7. **How well do you do in your dance classes in school compared to your other classes?**
₁ I do less well in dance than other classes.
₂ I do equally well in dance and other classes.
₃ I do better in dance than other classes.

- 8. **What kind(s) of writing do you do in this dance class? (Check all that apply)**
₁ Vocabulary worksheets ₂ Free writing ₃ Journals ₄ Essay tests
₅ Homework assignments ₆ In-class reflections ₇ Notes in class ₈ Dance reviews
₉ Essays or term papers ₁₀ Performance critiques ₁₁ None
₁₂ Biographies of dancers ₁₃ Other _____

- 9. **How often do you write in this dance class (either for homework or in class)?**
₁ Every day ₂ 2 or 3 times a week ₃ Once a week
₄ Once or twice a month ₅ Less than once a month ₆ Never or very rarely

- 10. **Do you enjoy the writing you do in this dance class?**
₁ I do not enjoy writing at all ₂ I enjoy writing a little ₃ I like to write about dance
₄ I love to write about dance ₅ Not applicable - I do not write in my dance classes.

- 11. **Are you planning on pursuing college-level studies in dance?**
₁ Yes ₂ No ₃ Maybe

- 12. **In your opinion, what would make your high school dance classes better?**

Student Literacy Activity

Music

Spring 2008

Today's date _____

Student name _____

Date of birth _____

School _____

Teacher _____

What grade are you in? _____

What language(s) do you speak at home?

- ₁ English is my native language.
- ₂ English is not my first language, but I speak English fluently.
- ₃ English is not my first language, but I speak English fairly well.
- ₄ English is not my first language and I do not speak it well.

By answering the questions on the next few pages, you are helping us conduct research on a teacher professional development project about academic literacy and the arts. The purpose of this exercise is to help us understand how high school students write about the performing and visual arts that they study in school. Your participation is voluntary, and your responses are completely confidential. This will not affect your grade in this course in any way and the results will not be shared with your teacher. You may withdraw from the study at any time without penalty. In order to keep your data confidential, this cover sheet with your name will be removed upon receipt by the research staff, leaving only your ID number on the next page of the survey. This cover sheet will be stored in a locked cabinet, separate from the completed survey.

I agree to participate in this study. I understand that my answers to these questions will be shared with the researchers only, and they will be kept confidential.

Signature: _____

ID:

Background Questions

1. **What type(s) of instrument(s) do you play? (Check all that apply.)**
₁ String ₂ Wind ₃ Percussion
₄ Keyboard/piano ₅ Voice ₆ Other _____
2. **For how many years have you been taking music lessons (either in school or outside of school)?** _____
3. **Have you taken music classes with this teacher before?** ₁ Yes ₂ No
If so, how many classes have you had with this teacher? _____
4. **What are your three favorite subjects in high school?**
1. _____ 2. _____ 3. _____
5. **What grade do you think you will get in the music class you are taking right now?** _____
6. **Do you think that grade is an accurate reflection of your work in this music class?**
₁ Yes ₂ No
because _____
7. **How well do you do in your music classes in school compared to your other classes?**
₁ I do less well in music than other classes.
₂ I do equally well in music and other classes.
₃ I do better in music than other classes.
8. **What kind of writing do you do in this music class? (check all that apply)**
₁ Vocabulary worksheets ₂ Free writing ₃ Journals ₄ Song lyrics
₅ Homework assignments ₆ Essay tests ₇ Notes in class ₈ Music reviews
₉ Essays and term papers ₁₀ In-class reflections ₁₁ Artist's statements
₁₂ Performance critiques ₁₃ Music analysis ₁₄ Music theory ₁₅ None
₁₆ Other _____
9. **How often do you write in this music class (either for homework or in class)?**
₁ Every day ₂ 2 or 3 times a week ₃ Once a week
₄ Once or twice a month ₅ Less than once a month ₆ Never or very rarely
10. **Do you enjoy the writing you do in this music class?**
₁ I do not enjoy writing at all ₂ I enjoy writing a little ₃ I like to write about music
₄ I love to write about music ₅ Not applicable - I do not write in my music classes.
11. **Are you planning on pursuing college level studies in music?**
₁ Yes ₂ No ₃ Maybe
12. **What, in your opinion, would make your high school music classes better?**

Instructions to student: Please write your answers to the following questions in the space provided.

The following is a list of some of the major kinds of music in the U.S.:

- | | | |
|-------------|-----------|-------------|
| Jazz | Classical | Blues |
| Rap/Hip Hop | Country | Soul |
| R & B | Latin | Heavy Metal |

Each of these kinds of music has its own special sound.

Choose a kind of music *from the list above* that you would like to write about:

Choose a well known, produced, and recorded song that you think is an excellent example of that type of music:

_____ performed by _____

1. Describe the way musical elements and expressive devices are used in the song you chose. How are those typical for the type of music you chose? Is there anything about the performance that is not typical for that type of music?

Student Literacy Activity

Theatre

Spring 2008

Today's date _____

Student name _____

Date of birth _____

School _____

Teacher _____

What grade are you in? _____

What language(s) do you speak at home?

- ₁ English is my native language.
- ₂ English is not my first language, but I speak English fluently.
- ₃ English is not my first language, but I speak English fairly well.
- ₄ English is not my first language and I do not speak it well.

By answering the questions on the next few pages, you are helping us conduct research on a teacher professional development project about academic literacy and the arts. The purpose of this exercise is to help us understand how high school students write about the performing and visual arts that they study in school. Your participation is voluntary, and your responses are completely confidential. This will not affect your grade in this course in any way and the results will not be shared with your teacher. You may withdraw from the study at any time without penalty. In order to keep your data confidential, this cover sheet with your name will be removed upon receipt by the research staff, leaving only your ID number on the next page of the survey. This cover sheet will be stored in a locked cabinet, separate from the completed survey.

I agree to participate in this study. I understand that my answers to these questions will be shared with the researchers only, and they will be kept confidential.

Signature: _____

ID: _____

ID:

Instructions to student: Please write your answers to the following questions in the space provided.

Imagine you have been asked to direct a short play for your school. Your job is to direct an actor who will portray a jealous person in the play.

In different theatre genres, jealousy would be portrayed very differently. You can choose to direct a play in any of the following genres:

- Comedy
- Tragedy
- Pantomime
- Melodrama
- Morality play
- Theatre of the absurd
- Musical theatre
- Rock opera

The theatre genre I would choose is: _____

1a. In the theatre genre you picked, how would a jealous character behave? Use the vocabulary of theatre (such as diction, technique, interpretation, or environment) to describe how you would direct an actor to behave in a scene with the person who is the object of his or her jealousy. Remember that the character should behave in ways that fit with the theatre genre you chose.

Student Literacy Activity

Visual Arts

Spring 2008

Today's date _____

Student name _____

Date of birth _____

School _____

Teacher _____

What grade are you in? _____

What language(s) do you speak at home?

- ₁ English is my native language.
- ₂ English is not my first language, but I speak English fluently.
- ₃ English is not my first language, but I speak English fairly well.
- ₄ English is not my first language and I do not speak it well.

By answering the questions on the next few pages, you are helping us conduct research on a teacher professional development project about academic literacy and the arts. The purpose of this exercise is to help us understand how high school students write about the performing and visual arts that they study in school. Your participation is voluntary, and your responses are completely confidential. This will not affect your grade in this course in any way and the results will not be shared with your teacher. You may withdraw from the study at any time without penalty. In order to keep your data confidential, this cover sheet with your name will be removed upon receipt by the research staff, leaving only your ID number on the next page of the survey. This cover sheet will be stored in a locked cabinet, separate from the completed survey.

I agree to participate in this study. I understand that my answers to these questions will be shared with the researchers only, and they will be kept confidential.

Signature: _____

ID:

ID:

Background Questions

- 1. **What type(s) of art is/are your area(s) of concentration? (Check all that apply.)**
₁ Painting/Drawing ₂ Sculpture or ceramics ₃ Mixed media
₄ Film/Video ₅ Animation/Anime ₆ Photography
₇ Fiber arts ₈ Other _____

- 2. **For how many years have you been taking art lessons (either in school or outside of school)?** _____

- 3. **Have you taken visual arts classes with this teacher before?** ₁ Yes ₂ No
If so, how many classes have you had with this teacher? _____

- 4. **What are your three favorite subjects in high school?**
1. _____ 2. _____ 3. _____

- 5. **What grade do you think you will get in this art class?** _____

- 6. **Do you think that grade is an accurate reflection of your work in this art class?**
₁ Yes ₂ No
because _____

- 7. **How well do you do in your art classes in school compared to your other classes?**
₁ I do less well in art than other classes.
₂ I do equally well in art and other classes.
₃ I do better in art than other classes.

- 8. **What kind of writing do you do in this art class? (check all that apply)**
₁ Vocabulary worksheets ₂ Free writing ₃ Journals ₄ Notes in class
₅ Homework assignments ₆ Essay tests ₇ Critiques ₈ Artist's statements
₉ Essays or Term papers ₁₀ In class reflections on works of art ₁₁ None
₁₂ Book work ₁₃ Portfolio ₁₄ Other _____

- 9. **How often do you write in this art class (either for homework or in class)?**
₁ Every day ₂ 2 or 3 times a week ₃ Once a week
₄ Once or twice a month ₅ Less than once a month ₆ Never or very rarely

- 10. **Do you enjoy the writing you do in this studio art class?**
₁ I do not enjoy writing at all ₂ I enjoy writing a little ₃ I like to write about art
₄ I love to write about art ₅ Not applicable - I do not write in my studio art classes.

- 11. **Are you planning on pursuing college level studies in art?**
₁ Yes ₂ No ₃ Maybe

- 12. **What, in your opinion, would make your high school art classes better?**

ID:

Instructions to student: Please write your answers to the following questions in the space provided.



This is a drawing called *Berserk01* by Federico Pistono.

1. Describe how Pistono used the elements or principles of visual art design (such as unity or contrast) to organize the composition of this drawing.

(CONTINUE WRITING ON NEXT PAGE→)

Appendix 3

Scoring Rubrics for Student Academic Literacy Assessments

Rubric for Arts Academic Literacy Student Assessment
Dance

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Holistic Impression: After reading the entire assessment through, assess how well the writing reflects knowledge of the arts discipline, the depth of ideas, and the quality of the analysis provided. Then choose the description that best characterizes the quality of the response <i>as a whole</i> .	Response reflects broad knowledge of dance as a discipline. The depth and complexity of ideas are supported by rich and pertinent details. Response demonstrates significant analysis, reflection, or insight.	Response reflects adequate knowledge of dance as a discipline. Ideas are developed with details and examples.	Response reflects some knowledge of dance as a discipline. A few ideas are developed, but supporting details are simplistic, sketchy or repetitious.	Response reflects very limited knowledge of dance as a discipline. Contains minimal idea development and few details.	Response is missing or incomplete, and reflects no knowledge of dance as a discipline. If ideas are expressed they are unclear or not relevant.

Arts standards - Academic Literacy:	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
ARTISTIC PERCEPTION: How effectively the response applies knowledge of the language of dance to distinguish how movement looks physically in relation to space, time, and force/energy. <i>Note: this is the VAPA standard</i>	AL skill: Describe & relate <i>These two scales apply to Questions One and Two only:</i>				
	Response effectively describes an intent in terms of the physical movements a dancer would make. Description is detailed and artistic choices are supported by explicit rationales. Description indicates a progression or sequence of movements.	Response sufficiently describes an intent in terms of the physical movements a dancer would make. Relationship between movement and intent is explicit. May describe movements in sequence.	Response describes a quality of the dancer's intent and the physical movements a dancer would make, but links between the intent and physical expression are weak or tenuous. There is no progression or sequence of movements. Justification for artistic choices is weak or implicit.	Response states an emotion for the dancer to express, but does not describe the intent in detail or relate it specifically to physical movements. Very limited or no justification of artistic choices, no progression.	No response, or response does not describe emotional intent, or does not understand what emotional intent is.
	Response effectively describes the movements from the perspective of the three dimensions of space, time, and energy. Choices are explicitly justified and related to intent.	Response sufficiently describes the movements from the perspective of all three dimensions. Some artistic choices are explicitly justified.	Response describes the movements from the perspective of at least two of the three dimensions. Reasons for artistic choices are implied but not explicit.	Response demonstrates an attempt to describe the dancer's movements from the perspective of at least one of the three dimensions, though the dimension itself may be unspecified. Artistic choices are not justified.	Response does not describe the physical movements a dancer would make in terms of any dimension.
AESTHETIC VALUING: How effectively the response describes how the qualities of a theatrical performance (such as music, lighting, costuming, text, set design) contribute to the success of a dance performance. <i>Note: this is the VAPA standard</i>	AL skill: Choose & design <i>This score applies to Question Three only:</i>				
	Response effectively describes the role that at least two further elements of the theatrical production could have in a dance performance. The elements are described in detail and explicitly justified in terms of how they would heighten the impact of the emotional intent.	Response sufficiently describes the role of at least two elements of theatrical production, and how they are related to the choreography.	Response cites at least two elements of theatrical production, but these choices are only loosely or implicitly related to the choreography.	Response cites at least one element of theatrical production, but reflects a very limited or no attempt to relate the choice to the choreography.	Response does not cite elements of a theatrical production.

Rubric for Arts Academic Literacy Student Assessment
Dance

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts Content Knowledge:	<i>The following scores should apply to the whole assessment:</i>				
Ideas: How well the response demonstrates understanding of choreography in dance. The degree to which the response develops and supports main ideas.	Response demonstrates an in-depth understanding of choreography. Answer is supported with several specific and detailed ideas.	Response demonstrates sufficient understanding of choreography. Answer is supported with at least one relevant idea.	Response demonstrates some, though limited, awareness of choreography. May include extraneous or loosely related ideas. Weak or vague examples, if any.	Response demonstrates very limited awareness of choreography. Ideas may be unrelated or contradictory. No examples given.	Response includes no significant ideas in response to the question. No examples given.
Language of the discipline: How well and how often the response uses the language of dance EXAMPLES: intent, artistic choices, counterbalance, mood, focus, gesture, motif, technique, tempo, unity, sequence, down/upstage, pattern, timing	Response demonstrates precise and natural use of a broad range of dance vocabulary.	Response uses a number of dance vocabulary words effectively and appropriately, though use may be awkward in places.	Response contains some dance vocabulary but at times vocabulary is used inappropriately or to say little. May use vocabulary words arbitrarily, without relevance to choreographic ideas.	Response contains very little or no disciplinary vocabulary, or it is used inappropriately. Uses layperson's terms when dance vocabulary would be more precise.	Uses no disciplinary vocabulary. Or response may be missing or have no clear relevance to the prompt or genre.

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Critical Thinking:					
How well the response establishes logical relationships between descriptive details or critical claims that are relevant to the prompt.	Response contains several arguments based on explicit evidence, establishing strong logical relationships between descriptive details or critical claims.	Response contains argument(s) based on evidence, making logical relationships between descriptive details or critical claims.	Response contains arguments and/or evidence, but logical relationships between descriptive details or critical claims are unclear.	Response may contain arguments or evidence, but they are <i>implicit</i> . Logical relationships between statements are implicit, absent or very weak.	Response is missing, off topic, or establishes no logical relationships between points.

Rubric for Arts Academic Literacy Student Assessment
Dance

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Writing:					
Completeness: The degree to which the response answers the given question.	Response answers both questions clearly, completely and concisely.	Response identifies and discusses important elements of each question and conveys a sense of completeness, though may be unclear in places.	Response identifies and discusses some but not all of the elements of the questions, answering only part of one or both questions.	Response demonstrates an attempt to respond to the questions but answers are not relevant or accurate. Does not identify or respond to many elements of the questions.	Response to one or both questions is missing or entirely off topic.
Structure: The degree to which the response creates coherence through structure and organization.	The organization enhances the central idea(s). The order and structure are strong and move the reader through the text.	Organization is clear and coherent. Order and structure are present, but may seem formulaic.	An attempt has been made to organize the writing, however the overall structure is inconsistent or skeletal. The order or the relationship between ideas may occasionally be unclear.	The writing lacks a clear organizational structure. An occasional organizational device is discernable; however the writing is either difficult to follow or the piece is too short to demonstrate organizational skills.	The writing lacks coherence; organization seems haphazard or disjointed and ultimately obscures the main point.
Sentence Fluency: The degree to which the response creates a sense of rhythm and flow, employing effective and varied sentences, and relating ideas.	The writing has an easy flow and rhythm. Sentences are carefully crafted with strong and varied structure that makes expressive oral reading easy and enjoyable.	The writing flows; however, connections between phrases or sentences may be less than fluid. Sentence patterns are varied, contributing to an ease in oral reading.	The writing tends to be mechanical rather than fluid. Occasional awkward constructions may force the reader to slow down or reread. Some variety in sentence structure, length and beginnings.	The writing tends to be either choppy or rambling. Awkward constructions often force the reader to slow down or reread. Sentence patterns are monotonous, or writing is too short to judge.	The writing is difficult to follow or to read aloud. Sentences tend to be incomplete, rambling, or very awkward. Sentence structure and confusing word order frequently obscure meaning.
Conventions: The degree to which the response employs conventional grammar and usage.	Any errors in standard writing conventions are barely noticeable and do not interfere with understanding.	Errors in standard writing conventions are noticeable but do not significantly interfere with understanding.	A variety of errors in standard writing conventions may occasionally make reading slow and may somewhat interfere with understanding.	Persistent errors in standard writing conventions consistently interfere with understanding.	Word use unclear, serious errors in standard writing conventions obscure meaning.

Rubric for Arts Academic Literacy Student Assessment
Music

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
<p>Holistic Impression: After reading the entire assessment through, assess how well the writing reflects knowledge of the arts discipline, the depth of ideas, and the quality of the analysis provided. Then choose the description that best characterizes the quality of the response <i>as a whole</i>.</p>	<p>Response reflects broad knowledge of the chosen genre and music as a discipline. The depth and complexity of ideas are supported by rich and pertinent details. Response demonstrates significant analysis, reflection, or insight of the chosen genre.</p>	<p>Response reflects adequate knowledge of the chosen genre and music as a discipline. Ideas are developed with relevant details and examples.</p>	<p>Response reflects some knowledge of the chosen genre and music as a discipline. A few ideas are developed, but supporting details are simplistic, sketchy or repetitious.</p>	<p>Response reflects very limited knowledge of music as a discipline. Contains minimal idea development and few details.</p>	<p>Response is missing or incomplete, and reflects no knowledge of music as a discipline. If ideas are expressed they are unclear or not relevant.</p>

Rubric for Arts Academic Literacy Student Assessment
Music

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts standards - Academic Literacy:					
ARTISTIC PERCEPTION: How effectively the response analyzes and describes how musical elements and compositional devices are used in the chosen genre. <i>Note: this is the VAPA standard</i> ELEMENTS: instrumentation, lyrics, tempo, dynamics, melody, rhythm, harmony, contour, pitch DEVICES: genre specific dynamic markings, phrasing, style, articulation, loudness	AL skill: Describe				
	Response effectively identifies and describes a broad range of musical qualities that distinguish the genre from others. Description is richly detailed, vivid, and comprehensive.	Response identifies and describes at least 2 commonly cited musical qualities typical of the genre.	Response describes or identifies a musical quality of the genre, but the quality is very general and not specific to genre.	Response identifies effects or emotional qualities but makes little or no attempt to describe the music or sound.	Response is missing, off-topic or does not describe the genre of music.
AL skill: Relate:					
	Response vividly describes how a broad range of explicitly defined elements and devices are used to produce the typical qualities and characteristics of the genre.	Response sufficiently defines at least one musical elements or expressive devices and explicitly describes how they are used to create genre qualities.	Response cites a musical element or expressive device, but makes only a basic or tenuous link between it and genre-specific qualities and characteristics.	Response cites a musical element or device but does not indicate how it is used. There is nothing genre-specific in the discussion of elements and devices.	Response is missing, off-topic or does not identify or discuss an element or device

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
AESTHETIC VALUING:					
How well the response develops specific criteria for making informed critical evaluations of the quality and effectiveness of performances. <i>Note: this is the VAPA standard</i>	AL skill: Develop criteria:				
	Response effectively describes a range of criteria particularly appropriate for judging performances of the chosen genre. Focuses on specific techniques and qualities of performance. Cites standards and explicitly states what makes one performance better than another.	Response describes at least 1 conventional criterion appropriate for judging performances in many genres. Cites at least one standard of performance.	Response cites criteria for judging a performance but <i>some</i> of these criteria are vague, simplistic or highly subjective. Critical perspective is unclear. Standards are vague or subjective.	Response cites <i>only</i> criteria that are either not relevant, highly subjective ('if [I think] the music is good'), or vague. Focuses on effects rather than techniques.	Response is missing or does not identify criteria for judging a performance

Rubric for Arts Academic Literacy Student Assessment
Music

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts Content Knowledge:	<i>The following scores should apply to the whole assessment:</i>				
Ideas: How well the response demonstrates understanding of music. The degree to which the response develops and supports main ideas.	Response demonstrates an in-depth understanding of music. Answer is supported with several specific examples.	Response demonstrates sufficient understanding of music. Answer is supported with at least one relevant example.	Response demonstrates some, though limited, awareness of music. May include extraneous or loosely related ideas. Weak or vague examples if any.	Response demonstrates very limited awareness of music. Ideas may be unrelated or contradictory. No examples given.	Response includes no significant ideas in response to the question. No examples given.
Language of music: How well and how often the response uses disciplinary language ELEMENTS: instrumentation, lyrics, tempo, dynamics, melody, rhythm, harmony, contour, pitch DEVICES: genre specific dynamic markings, phrasing, style, articulation, loudness	Response demonstrates precise and natural use of a broad range of music vocabulary. Language use is mature.	Response uses a number of music vocabulary words effectively and appropriately, though use may be awkward in places.	Response contains some music vocabulary but at times vocabulary is used inappropriately or to say little. May use vocabulary words arbitrarily, without relevance to music or genre cited, or to question.	Response describes the music but contains very little or no disciplinary vocabulary, or it is used inappropriately. Uses layperson's terms when music vocabulary would be more precise.	Uses no disciplinary vocabulary. Does not describe the music. Response may be missing or have no clear relevance to the prompt or genre.

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Critical Thinking:					
How well the response establishes logical relationships between descriptive details or critical claims that are relevant to the prompt.	Response contains several arguments based on explicit evidence, establishing strong logical relationships between descriptive details or critical claims.	Response contains argument(s) based on evidence, making logical relationships between descriptive details or critical claims.	Response contains arguments and/or evidence, but logical relationships between descriptive details or critical claims are unclear.	Response may contain arguments or evidence, but they are <i>implicit</i> . Logical relationships between statements are implicit, absent or very weak.	Response is missing, off topic, or establishes no logical relationships between points.

Rubric for Arts Academic Literacy Student Assessment
Music

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Writing:					
Completeness: The degree to which the response answers the given question.	Response answers both questions clearly, completely and concisely.	Response identifies and discusses the important elements of each question and conveys a sense of completeness, though may be unclear in places.	Response identifies and discusses some but not all of the elements of each question, answering only part of one or both questions.	Response demonstrates an attempt to respond to the questions but answers are not relevant or accurate. Does not identify or respond to many elements of the questions.	Response to one or both questions is missing or entirely off topic.
Structure: The degree to which the response creates coherence through structure and organization.	The organization enhances the central idea(s). The order and structure are strong and move the reader through the text.	Organization is clear and coherent. Order and structure are present, but may seem formulaic.	An attempt has been made to organize the writing, however the overall structure is inconsistent or skeletal. The order or the relationship between ideas may occasionally be unclear.	The writing lacks a clear organizational structure. An occasional organizational device is discernable; however the writing is either difficult to follow or the piece is too short to demonstrate organizational skills.	The writing lacks coherence; organization seems haphazard or disjointed and ultimately obscures the main point.
Sentence Fluency: The degree to which the response creates a sense of rhythm and flow, employing effective and varied sentences, and relating ideas.	The writing has an easy flow and rhythm. Sentences are carefully crafted with strong and varied structure that makes expressive oral reading easy and enjoyable.	The writing flows; however, connections between phrases or sentences may be less than fluid. Sentence patterns are varied, contributing to an ease in oral reading.	The writing tends to be mechanical rather than fluid. Occasional awkward constructions may force the reader to slow down or reread. Some variety in sentence structure, length and beginnings.	The writing tends to be either choppy or rambling. Awkward constructions often force the reader to slow down or reread. Sentence patterns are monotonous, or writing is too short to judge.	The writing is difficult to follow or to read aloud. Sentences tend to be incomplete, rambling, or very awkward. Sentence structure and confusing word order frequently obscure meaning.
Conventions: The degree to which the response employs conventional grammar and usage.	Any errors in standard writing conventions are barely noticeable and do not interfere with understanding.	Errors in standard writing conventions are noticeable but do not significantly interfere with understanding.	A variety of errors in standard writing conventions may occasionally make reading slow and may somewhat interfere with understanding.	Persistent errors in standard writing conventions consistently interfere with understanding.	Word use unclear, serious errors in standard writing conventions obscure meaning.

Rubric for Arts Academic Literacy Student Assessment Theater

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Holistic Impression: After reading the entire assessment through, assess how well the writing reflects knowledge of the arts discipline, the depth of ideas, and the quality of the analysis provided. Then choose the description that best characterizes the quality of the response <i>as a whole</i> .	Response reflects broad knowledge of the chosen genre and theater as a discipline. The depth and complexity of ideas are supported by rich and pertinent details. Response demonstrates significant analysis, reflection, or insight.	Response reflects adequate knowledge of the chosen genre and theater as a discipline. Ideas are developed with relevant details and examples.	Response reflects some knowledge of the chosen genre and theater as a discipline. A few ideas are developed, but supporting details are simplistic, sketchy or repetitious.	Response reflects very limited knowledge of theater as a discipline. Contains minimal idea development and few details.	Response is missing or incomplete, or reflects no knowledge of theater as a discipline. If ideas are expressed they are unclear or not relevant

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts standards - Academic Literacy:					
ARTISTIC PERCEPTION: How effectively the response uses the language of the theater, such as acting values, style, genre, design, and theme to describe theatrical experiences. <i>Note: this is the VAPA standard</i>	AL skill: Describe <i>These two scores apply to both questions:</i>				
	Response explicitly describes step by step how an actor would approach or be prepared for the role, and describes a specific approach to stage direction. Describes several movements and expressions characteristic of the actor's intent. Directions state and explain how character behavior is motivated, and how it develops in response to plot developments and to other characters.	Response sufficiently describes how a character would behave or be directed. Discusses 1 or 2 physical movements and expressions that would typify the actor's intent, and includes some analysis of the emotion. May consider emotional expression only in the context of a specific scene or event. May not discuss role preparation or the change over time in emotional expression.	Response describes how the actor should behave or move on stage in very basic terms but includes at least one behavioral instruction. Leaves much of the direction and craft of acting implicit, stating what a character would feel without explaining how that might be conveyed or identifying elements of characterization.	Response contains very limited or no description of what actor should behave physically on stage or how emotion could be portrayed. Focus is on whole actions/effects ["the actor kills people"] rather than the elements of characterization. (For example, response may describe why a person would be jealous rather than how an actor would behave.)	Response does not describe any aspect of stage direction. May only describe a plot or story with a jealous character.
	AL skill: Relate/interpret				
Response describes stage directions that are explicitly related to or determined by genre choice. Genre is described in a way that justifies direction.	Response describes stage directions that are plausibly and explicitly related to genre choice, though how the genre constrains the direction may not be explicit.	Refers explicitly to genre in stage directions, but references are superficial or gratuitous. Characterization of genre is simplistic.	Response does not refer to genre in stage directions, or makes little attempt to tailor character direction to chosen genre.	Response describes plot and character descriptions that do not seem to reflect genre choice in any way, or genre is incorrectly defined.	

Rubric for Arts Academic Literacy Student Assessment
Theater

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
AL skill: Develop criteria <i>This score applies to Question Two only:</i>					
AESTHETIC VALUING: How effectively the response develops criteria from a director's point of view, and describes how a specific actor could use drama to convey meaning in a performance. <i>Note: this is the VAPA standard</i>	Response identifies a broad range of disciplinary criteria suitable for judging a performance, citing a range of specific techniques and qualities of performance. Explicitly states what makes one performance different or better than another [standards]. Consistently and explicitly discusses the performance from a director's or theater critic's point of view.	Response cites 2 or 3 theater criteria for judging a performance. Focuses on a range of specific techniques and qualities of performance. Consistently and explicitly discusses the performance from a director's or theater critic's point of view. Cites at least one standard (level of quality or attainment).	Response cites criteria for judging a performance but some of these criteria may be vague, redundant, or 'classroom criteria' ['actor tries hard,' 'it would be good if actor practiced a lot']. Critical perspective is unclear. Standards are vague, unidentified or 'whether actor does x or not' rather than 'how an actor does x.'	Response cites <i>only</i> criteria that are classroom standards, or that are vague or weak. Does not refer to genre. Focuses on the overall effects of the performance without naming or only implying techniques that contribute to the effects.	Response, if any, does not identify criteria for judging a performance. May continue to develop a plot or describe how they would act as directors without mentioning how performances are evaluated.

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts Content Knowledge: <i>The following scores should apply to the whole assessment:</i>					
Ideas: How well the response demonstrates understanding of acting and directing. The degree to which the response develops and supports main ideas.	Response demonstrates an in-depth understanding of the acting and direction. Answer is supported with several specific examples.	Response demonstrates sufficient understanding of acting and directing. Answer is supported with at least one relevant example.	Response demonstrates some, though limited, awareness of acting and directing. May include extraneous or loosely related ideas. Weak or vague examples if any.	Response demonstrates very limited awareness of acting and directing. Ideas may be unrelated or contradictory. No examples given.	Response includes no significant ideas in response to the question. No examples given.
Language of the theater: How well and how often the response uses disciplinary language Vocabulary: Improvisation, objective, conflict, focus, projection, blocking, cue, stage direction, proscenium, characterization, gesture, props, vocal quality, interpretation, technique, engagement	Response demonstrates precise and natural use of a broad range of theater vocabulary.	Response uses a number of theater vocabulary words effectively and appropriately, though use may be awkward in places.	Response contains some vocabulary of the theater but at times vocabulary is used inappropriately. May use vocabulary words arbitrarily, without relevance to direction or to question.	Response contains very little or no disciplinary vocabulary, or it is used inappropriately. Uses layperson's terms when theater vocabulary would be more precise.	Uses layperson's terms rather than theater vocabulary. Or response may be missing or have no clear relevance to the prompt or genre.

Rubric for Arts Academic Literacy Student Assessment
Theater

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Critical Thinking:					
How well the response establishes logical relationships between descriptive details or critical claims that are relevant to the prompt.	Response contains several arguments based on explicit evidence, establishing strong logical relationships between descriptive details or critical claims.	Response contains argument(s) based on evidence, making logical relationships between descriptive details or critical claims.	Response contains arguments and/or evidence, but logical relationships between descriptive details or critical claims are unclear.	Response may contain arguments or evidence, but they are <i>implicit</i> . Logical relationships between statements are implicit, absent or very weak.	Response is missing, off topic, or establishes no logical relationships between points.

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Writing:					
Completeness: The degree to which the response answers the given question.	Response answers both questions clearly, completely and concisely.	Response identifies and discusses the important elements of each question and conveys a sense of completeness, though may be unclear in places.	Response identifies and discusses some but not all of the elements of each question, answering only part of one or both questions.	Response demonstrates an attempt to respond to the questions but answers are irrelevant or incomplete. Does not identify or respond to many elements of the questions.	Response to one or both questions is missing or entirely off topic.
Structure: The degree to which the response creates coherence through structure and organization.	The organization enhances the central idea(s). The order and structure are strong and move the reader through the text.	Organization is clear and coherent. Order and structure are present, but may seem formulaic.	An attempt has been made to organize the writing, however the overall structure is inconsistent or skeletal. The order or the relationship between ideas may occasionally be unclear.	The writing lacks a clear organizational structure. An occasional organizational device is discernable; however the writing is either difficult to follow or the piece is too short to demonstrate organizational skills.	The writing lacks coherence; organization seems haphazard or disjointed and ultimately obscures the main point.
Sentence Fluency: The degree to which the response creates a sense of rhythm and flow, employing effective and varied sentences, and relating ideas.	The writing has an easy flow and rhythm. Sentences are carefully crafted with strong and varied structure that makes expressive oral reading easy and enjoyable.	The writing flows; however, connections between phrases or sentences may be less than fluid. Sentence patterns are varied, contributing to an ease in oral reading.	The writing tends to be mechanical rather than fluid. Occasional awkward constructions may force the reader to slow down or reread. Some variety in sentence structure, length and beginnings.	The writing tends to be either choppy or rambling. Awkward constructions often force the reader to slow down or reread. Sentence patterns are monotonous, or writing is too short to judge.	The writing is difficult to follow or to read aloud. Sentences tend to be incomplete, rambling, or very awkward. Sentence structure and confusing word order frequently obscure meaning.

Rubric for Arts Academic Literacy Student Assessment
Theater

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Writing:					
Conventions: The degree to which the response employs conventional grammar and usage.	Any errors in standard writing conventions are barely noticeable and do not interfere with understanding.	Errors in standard writing conventions are noticeable but do not significantly interfere with understanding.	A variety of errors in standard writing conventions may occasionally make reading slow and may somewhat interfere with understanding.	Persistent errors in standard writing conventions consistently interfere with understanding.	Word use unclear, serious errors in standard writing conventions obscure meaning.

Rubric for Arts Academic Literacy Student Assessment
Visual Arts

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
<p>Holistic Impression: After reading the entire assessment through, assess how well the writing reflects knowledge of the arts discipline, the depth of ideas, and the quality of the analysis provided. Then choose the description that best characterizes the quality of the response <i>as a whole</i>.</p>	Response reflects broad knowledge of the arts discipline. The depth and complexity of ideas are supported by rich and pertinent details. Response demonstrates significant analysis, reflection, or insight.	Response reflects adequate knowledge of the arts discipline. Ideas are developed with details and examples.	Response reflects some knowledge of the arts discipline. A few ideas are developed, but supporting details are simplistic, sketchy or repetitious.	Response reflects very limited knowledge of the arts discipline. Contains minimal idea development and few details.	Response is missing or incomplete, and reflects no knowledge of the arts discipline. If ideas are expressed they are unclear or not relevant.

Rubric for Arts Academic Literacy Student Assessment
Visual Arts

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts standards - Academic Literacy:					
<p>ARTISTIC PERCEPTION: How effectively the response describes and analyzes how the composition is affected by a particular principle of design. <i>Note: this is the VAPA standard</i></p> <p>PRINCIPLES: Contrast, emphasis, balance, unity, pattern, movement, rhythm</p> <p>ELEMENTS: Color, value, texture, shape, form, space, line</p>	AL skill: Describe <i>These two scores apply to Question One only:</i>				
	Response effectively and vividly identifies a broad range of qualities present in the drawing, citing specific features. Description is richly detailed and comprehensive.	Response sufficiently identifies and describes a number of general qualities of the drawing, citing specific features.	Response describes or identifies at least one general quality of the drawing, citing a general feature.	Response mentions a quality without any direct or specific reference to the drawing.	Response does not describe or explicitly identify a quality in the drawing, or the response is missing or off-topic.
	AL skill: Analyze				
	Response thoroughly and effectively discusses several principles of design, showing how several techniques and elements used in the drawing create specific effects. Description is detailed and comprehensive, discussing the whole work.	Response sufficiently defines and discusses one or more principles of design, identifying the techniques and elements in the drawing that produce specific effects. May focus on one or two techniques or elements and not discuss the whole drawing.	Response cites a principle of design, but makes only a basic, implicit or tenuous link between the design principle and characteristics and techniques identified in the drawing.	Response cites a principle but does not describe how the principle applies to the drawing. Principle may be incorrectly or inconsistently defined.	Response does not identify or apply a principle of design, or the response is missing or off-topic.
<p>AESTHETIC VALUING: How effectively the response formulates and supports a position regarding the aesthetic value of a specific work of art and develops chosen criteria. <i>Note: this is the VAPA standard</i></p>	AL skill: Develop criteria <i>This score applies to Question Two only:</i>				
	Response effectively describes a range of conventional arts criteria, explicitly describing how these criteria apply to the drawing. Implicitly or explicitly distinguishes between objective and subjective criteria. Criteria are evaluative or contribute to an evaluation.	Response describes one or more conventional arts criteria, explicitly describing how these could apply to the drawing. Criteria may not be comprehensive. May also include some criteria that are not evaluative or conventional.	Response cites criteria for judging a drawing, but applies them to the drawing in a way that is vague or ambiguous, and/or not really applicable to the drawing. May cite classroom standards ('if the artist tries hard') in addition to conventional disciplinary criteria.	Response cites <i>only</i> criteria that are either vague, classroom related or not relevant. Does not attempt to explain how these criteria apply to the drawing.	Response does not identify criteria for judging the drawing.

Rubric for Arts Academic Literacy Student Assessment
Visual Arts

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Arts Content Knowledge:	<i>The following scores should apply to the whole assessment:</i>				
Ideas: How well the response demonstrates understanding of the analysis and criticism of an artwork. The degree to which the response develops and supports main ideas.	Response demonstrates an in-depth understanding of critical analysis in art. Answer is supported with several specific examples.	Response demonstrates sufficient understanding of critical analysis in art. Answer is supported with at least one relevant example.	Response demonstrates some, though limited, awareness of critical analysis in art. May include extraneous or loosely related ideas. Weak or vague examples, if any.	Response demonstrates very limited awareness of critical analysis in art. Ideas may be unrelated or contradictory. No examples given.	Response includes no significant ideas in response to the question. No examples given.
Language of the arts discipline: How well and how often the response uses disciplinary language Examples: PRINCIPLES: Contrast, emphasis, balance, unity, pattern, movement, rhythm ELEMENTS: Color, value, texture, shape, form, space, line	Response demonstrates precise and natural use of a broad range of visual arts vocabulary.	Response uses a number of visual arts vocabulary words effectively and appropriately, though use may be awkward in places.	Response contains some visual arts vocabulary but at times it is used inappropriately. May use vocabulary words arbitrarily, without relevance to drawing or to question.	Response contains very little or no disciplinary vocabulary, or it is used inappropriately. Uses layperson's terms when arts vocabulary would be more precise.	Uses no disciplinary arts vocabulary. Response may be missing or have no clear relevance to the prompt.

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Critical Thinking:	<i>The following scores should apply to the whole assessment:</i>				
How well the response establishes logical relationships between descriptive details or critical claims that are relevant to the prompt.	Response contains several arguments based on explicit evidence, establishing strong logical relationships between descriptive details or critical claims.	Response contains argument(s) based on evidence, making logical relationships between descriptive details or critical claims.	Response contains arguments and/or evidence, but logical relationships between descriptive details or critical claims are unclear.	Response may contain arguments or evidence, but they are <i>implicit</i> . Logical relationships between statements are implicit, absent or very weak.	Response is missing, off topic, or establishes no logical relationships between points.

Rubric for Arts Academic Literacy Student Assessment
Visual Arts

Area	5: Advanced	4: Proficient	3: Basic	2: Below Basic	1: Far Below Basic
Writing:	<i>The following scores should apply to the whole assessment:</i>				
Completeness: The degree to which the response answers the given question.	Response answers both questions clearly, completely and concisely.	Response identifies and discusses the important elements of each question and conveys a sense of completeness, though may be unclear in places.	Response identifies and discusses some but not all of the elements of each question, answering only part of one or both questions.	Response demonstrates an attempt to respond to the questions but answers are not relevant or accurate. Does not identify or respond to many elements of the questions.	Response to one or both questions is missing or entirely off topic.
Structure: The degree to which the response creates coherence through structure and organization.	The organization enhances the central idea(s). The order and structure are strong and move the reader through the text.	Organization is clear and coherent. Order and structure are present, but may seem formulaic.	An attempt has been made to organize the writing, however the overall structure is inconsistent or skeletal. The order or the relationship between ideas may occasionally be unclear.	The writing lacks a clear organizational structure. An occasional organizational device is discernable; however the writing is either difficult to follow or the piece is too short to demonstrate organizational skills.	The writing lacks coherence; organization seems haphazard or disjointed and ultimately obscures the main point.
Sentence Fluency: The degree to which the response creates a sense of rhythm and flow, employing effective and varied sentences, and relating ideas.	The writing has an easy flow and rhythm. Sentences are carefully crafted with strong and varied structure that makes expressive oral reading easy and enjoyable.	The writing flows; however, connections between phrases or sentences may be less than fluid. Sentence patterns are varied, contributing to an ease in oral reading.	The writing tends to be mechanical rather than fluid. Occasional awkward constructions may force the reader to slow down or reread. Some variety in sentence structure, length and beginnings.	The writing tends to be either choppy or rambling. Awkward constructions often force the reader to slow down or reread. Sentence patterns are monotonous, or writing is too short to judge.	The writing is difficult to follow or to read aloud. Sentences tend to be incomplete, rambling, or very awkward. Sentence structure and confusing word order frequently obscure meaning.
Conventions: The degree to which the response employs conventional grammar and usage.	Any errors in standard writing conventions are barely noticeable and do not interfere with understanding.	Errors in standard writing conventions are noticeable but do not significantly interfere with understanding.	A variety of errors in standard writing conventions may occasionally make reading slow and may somewhat interfere with understanding.	Persistent errors in standard writing conventions consistently interfere with understanding.	Word use unclear, serious errors in standard writing conventions obscure meaning.

Appendix 4

Correlations between Teacher Variables and Student Gains

2007-08 Trends in Relationships between Teacher Variables and Student Gain

	Treatment vs. Comparison	Class Level	Past TCAP	T Attitudes	T Content Knowledge (Strands)	T Change in practice
All disciplines <i>n</i> = 25 teachers	Higher gains for T than for C, much higher for Co1, slightly for Co2	Highest gains for 'basic' and 'advanced' writer classes.	Higher gains for Ts with prior TCAP experience, both C and T	<i>No clear pattern.</i>	<i>No clear pattern.</i>	<i>No clear pattern.</i>
Dance <i>n</i> = 3 teachers	T stronger than C in all areas.	Strongest gains for remedial writers.	<i>Can't compare</i>	Higher gains for Ts with more positive attitudes to AL practices	Higher gains for Ss of Ts with more VAPA knowledge at beginning of course	Greater gains correlate with greater positive change in practice
Music <i>n</i> = 5 teachers	T stronger than C across the board.	Gains are strongest with remedial writers.	Strongest gains for T Ts with past TCAP exp.	<i>No clear pattern.</i>	<i>No clear pattern.</i>	<i>No clear pattern.</i>
Theater <i>n</i> = 4 teachers	Co2 stronger than C across the board, Co1 only on holistic, AL CT	Highest gains for basic writers.	Strongest gains for T Ts with past TCAP exp.	Higher gains for Ts with more positive attitudes to AL practices- T only	<i>No clear pattern.</i>	<i>No clear pattern.</i>
Visual Arts <i>n</i> = 13 teachers	<i>Co1 higher than C in CT and writing, other comparisons mixed, Co2 weaker.</i>	<i>Strong gains for basic, intermediate and advanced writer classes</i>	<i>Higher gains for Ts without prior TCAP experience</i>	<i>No clear pattern.</i>	Higher gains for Ss of Ts with more VAPA knowledge at end of course.	<i>No clear pattern.</i>

Note. **Bold** indicates positive correlation; *italics* indicate weak or no relationship.

Dimensions on student academic literacy assessment:

ACK = Arts Content Knowledge; AL = Academic Literacy; CT = Critical Thinking; Writing = Writing Skills

Treatment groups: Co1 = Teacher Cohort 1; Co2 = Teacher Cohort2; Co3 = Teacher Cohort 3; T = Treatment; C = Comparison

2007-08 Trends in Relationships between Teacher Variables and Student Gain (continued)

	In-class writing	AL practice: Discuss	AL practice: Articulate	AL practice: Compare	AL practice: Research
All disciplines <i>n</i> = 25 teachers	Stronger gains for T not C: AL Writing Holistic CT ACK	Stronger gains: AL Writing CT Holistic ACK Writing	<i>No clear pattern</i>	Stronger gains: AL Writing ACK	<i>No clear pattern</i>
Dance <i>n</i> = 3 teachers	Stronger gains: Holistic AL Holistic CT ACK	Stronger Gains: AL Writing CT ACK	<i>No clear pattern</i>	Stronger gains (for T not C): AL Writing CT <i>holistic</i>	<i>Negative trend</i>
Music <i>n</i> = 5 teachers	Stronger gains: AL Writing Total Holistic CT ACK	Stronger gains: AL <i>Writing</i> <i>Total</i> <i>ACK</i> Holistic CT	<i>Could be confound— but higher gains ALW, total, holistic, CT, ACK</i>	Greater gains: AL Writing CT Holistic ACK	<i>Some evidence: AL Writing ACK</i>
Theater <i>n</i> = 4 teachers	More is better T only: AL Writing Total Holistic, CT ACK	More is better for T only: AL Writing Total Holistic CT	More is better for T only: AL Writing Total CT holistic	<i>No clear pattern</i>	More is better AL Writing Total CT Holistic ACK
Visual Arts <i>n</i> = 13 teachers	<i>No clear pattern</i>	For T and C greater gains: AL Writing Holistic CT For T only: ACK	<i>Negative trend for AL and writing</i>	Greater gains: AL Writing CT	<i>Negative trend</i>

Note. **Bold** indicates positive correlation; *italics* indicate weak or no relationship.

Dimensions on student academic literacy assessment:

ACK = Arts Content Knowledge; AL = Academic Literacy; CT = Critical Thinking; Writing = Writing Skills

Treatment groups: Co1 = Teacher Cohort 1; Co2 = Teacher Cohort2; Co3 = Teacher Cohort 3; T = Treatment; C = Comparison

2008-09 Trends in Relationships between Teacher Variables and Student Gain

	Comparison of groups	Class Level	Past TCAP	T Attitudes	T Content Knowledge (Strands)	T Change in practice
All disciplines <i>n</i> = 31 teachers	Holistic gains higher than C for Co1, Co2, but not Co3, though all treatment groups show higher gains for AL.	Greater gains for “basic’ writers.	Higher gains for teachers with past TCAP experience.	<i>No clear pattern</i>	<i>No clear pattern</i>	Greater change -higher gains: Holistic AL
Dance <i>n</i> = 4 teachers	T is stronger than C, especially Co3	Classes of ‘remedial’ and “basic’ writers show greatest gains.	<i>Higher gains for teachers without prior TCAP experience</i>	More positive attitudes to AL practices - higher gains.	Higher VAPA content knowledge - higher gains.	Greater change -higher gains: Esp. AL, holistic
Music <i>n</i> = 6 teachers	Holistic gains higher than C for Co1, but not 3, though all treatment groups show higher gains for AL.	Classes of “remedial’ writers show greatest gains.	Higher gains for T with past TCAP; for C group, higher without.	<i>No clear pattern</i>	Higher VAPA content knowledge - higher gains.	Greater change -higher gains: AL, holistic
Theater <i>n</i> = 5 teachers	Co2 is stronger than C, but Co1 and Co3 weaker.	Classes of “basic’ writers show greatest gains.	Stronger gains for teachers with prior TCAP experience	More positive attitudes to AL practices - higher gains for T not for C	<i>No clear pattern</i>	<i>No clear pattern</i>
Visual Arts <i>n</i> = 19 teachers	Holistic gains higher than C for Co1, 2, but not 3, though all T show higher gains for AL	Classes of ‘remedial’ and “basic’ writers show greatest gains.	Higher gains for T teachers with past TCAP experience.	<i>No clear pattern</i>	<i>No clear pattern</i>	<i>No clear pattern</i>

Note. **Bold** indicates positive correlation; *italics* indicate weak or no relationship.

Dimensions on student academic literacy assessment:

ACK = Arts Content Knowledge; AL = Academic Literacy; CT = Critical Thinking; Writing = Writing Skills

Treatment groups: Co1 = Teacher Cohort 1; Co2 = Teacher Cohort2; Co3 = Teacher Cohort 3; T = Treatment; C = Comparison

2008-09 Trends in Relationships between Teacher Variables and Student Gain (continued)

	In-class writing	AL practice: Discuss	AL practice: Articulate	AL practice: Compare	AL practice: Research
All disciplines <i>n</i> = 31 teachers	Stronger gains for T not C: AL Writing Holistic CT ACK	Stronger gains: AL Writing CT Holistic ACK Writing	<i>No clear pattern</i>	Stronger gains: AL Writing ACK	<i>No clear pattern</i>
Dance <i>n</i> = 4 teachers	Stronger gains: AL Writing Total Holistic CT ACK	Stronger gains: AL <i>Writing</i> <i>Total</i> <i>ACK</i> Holistic CT	<i>Could be confound— but higher gains ALW, total, holistic, CT, ACK</i>	Greater gains: AL Writing CT Holistic ACK	<i>Some evidence: AL Writing ACK</i>
Music <i>n</i> = 6 teachers	<i>No clear pattern</i>	For T and C greater gains: AL Writing Holistic CT For T only: ACK	<i>Negative trend for AL and writing</i>	Greater gains: AL Writing CT	<i>Negative trend</i>
Theater <i>n</i> = 5 teachers	More is better T only: AL Writing Total Holistic, CT ACK	More is better for T only: AL Writing Total Holistic CT	More is better for T only: AL Writing Total CT holistic	<i>No clear pattern</i>	More is better AL Writing Total CT Holistic ACK
Visual Arts <i>n</i> = 19 teachers	Stronger gains: <i>Holistic</i> <i>AL</i> <i>Holistic</i> <i>CT</i> <i>ACK</i>	Stronger Gains: AL Writing Holistic CT <i>ACK</i>	<i>No clear pattern</i>	Stronger gains (for T not C): <i>AL</i> <i>Writing</i> <i>CT</i> <i>holistic</i>	<i>Negative trend</i>

Note. **Bold** indicates positive correlation; *italics* indicate weak or no relationship.

Dimensions on student academic literacy assessment:

ACK = Arts Content Knowledge; AL = Academic Literacy; CT = Critical Thinking; Writing = Writing Skills

Treatment groups: Co1 = Teacher Cohort 1; Co2 = Teacher Cohort2; Co3 = Teacher Cohort 3; T = Treatment; C = Comparison