



**YALE-NEW HAVEN
TEACHERS INSTITUTE®**

Annual Report

2009

Yale-New Haven
Teachers Institute

Annual Report

2009

The Yale-New Haven Teachers Institute® is an educational partnership between Yale University and the New Haven Public Schools designed to strengthen teaching and learning in local schools and, by example and district assistance, in schools across the country. Through the Institute, Yale faculty members and school teachers work together in a collegial relationship. The Institute is also an interschool and interdisciplinary forum for teachers to collaborate on new curricula. Each participating teacher becomes an Institute Fellow and prepares a curriculum unit to be taught the following year. Teachers have primary responsibility for identifying the subjects the Institute addresses.

Since its inception in 1978, the Institute has been recognized repeatedly as a pioneering and successful model of university-school collaboration; in 1990 it became the first program of its type to be permanently endowed as a function of a university. In 1998 the Institute launched a National Demonstration Project to show that the approach it had taken for twenty years in New Haven could be tailored to establish similar university-school partnerships under different circumstances in other cities. Based on the success of that Project, in 2004 it announced the Yale National Initiative® to strengthen teaching in public schools, a long-term endeavor to establish exemplary Teachers Institutes in states throughout the country.

For information about the Institute model, the National Initiative, or opportunities to support the Institute's Endowment, please contact:

James R. Vivian, Director
Yale-New Haven Teachers Institute
Yale University
P.O. Box 203563
New Haven, Connecticut 06520-3563
phone: (203) 432-1080
fax: (203) 432-1084
electronic mail: ynhti@yale.edu
contributions: teachers.yale.edu/give
Web sites: www.yale.edu/ynhti
teachers.yale.edu

© 2010 by Yale-New Haven Teachers Institute, Yale University.

Yale National Initiative®, Yale-New Haven Teachers Institute®, League of Teachers Institutes®, and *On Common Ground*® are registered trademarks of Yale University.

Contents

| | |
|--|----|
| Highlights of the Report..... | 1 |
| Introduction | 1 |
| The Program in New Haven..... | 4 |
| The Institute and Initiative Web Sites | 4 |
| <i>On Common Ground</i> ® | 4 |
| The Program in New Haven..... | 6 |
| The Seminars and Curriculum Units..... | 6 |
| “Writing, Knowing, Seeing” | 6 |
| “The Modern World in Literature and the Arts” | 9 |
| “Science and Engineering in the Kitchen” | 12 |
| “How We Learn about the Brain” | 13 |
| “Evolutionary Medicine” | 15 |
| The Process of Determining the Seminar Topics..... | 16 |
| The Fellows’ Application and Admissions Process | 17 |
| The Fellows Who Were Accepted | 22 |
| Activities for Fellows | 26 |
| Rewards for Fellows..... | 34 |
| Relating Seminar Topics to Curriculum Units | 40 |
| Results for the Participants..... | 43 |
| Benefits for Students | 49 |
| Participants’ Conclusions Overall | 54 |
| Electronic Resources and Assistance | 59 |
| Preparation for the Program in 2010..... | 62 |
| Documentation and Evaluation | 63 |
| The Institute and Initiative Web Sites | 65 |
| University Advisory Council..... | 69 |
| <i>On Common Ground</i> | 70 |
| Conclusion | 72 |
| Appendix | 73 |
| Committees and Councils of the Institute | 73 |
| Fellows of the Yale-New Haven Teachers Institute, 1978-2009..... | 74 |
| Seminar Leaders of the Yale-New Haven Teachers Institute, 1978-2009 .. | 78 |
| Selected Bibliography | 79 |

HIGHLIGHTS OF THE REPORT

Introduction

During 2009 the Yale-New Haven Teachers Institute® continued its New Haven program for the thirty-second year and pursued for the fifth year the Yale National Initiative to strengthen teaching in public schools®, a long-term endeavor to establish as many as forty-five new Teachers Institutes throughout the United States.

From its beginning in 1978, the overall purpose of the Yale-New Haven Teachers Institute has been to strengthen teaching and learning in local schools and, by example, in schools across the country. The Institute places equal emphasis on teachers' increasing their knowledge of a subject and on their developing teaching strategies that will be effective with their students. New Haven represents a microcosm of urban public education in the United States. Eighty-four percent of the students in the New Haven Public Schools are African American or Hispanic. More than 70 percent of students are eligible for a free or reduced-price lunch.

At the core of the program is a series of seminars on subjects in the humanities and the sciences. Topics are suggested by the teachers based on

Annual Report: Highlights of the Report

what they think could enrich their classroom instruction. In the seminars, Yale faculty contribute their knowledge of a subject, while the New Haven teachers contribute their expertise in elementary and secondary school pedagogy, their understanding of the students they teach, and their grasp of what works in the crucible of the classroom. Successful completion of a seminar requires that, with guidance from the Yale faculty member, the teachers each write a curriculum unit to be used in their own classroom and to be shared with others. The units are disseminated throughout New Haven schools. Both print and electronic publication make the units available for use or adaptation by other teachers in New Haven, and by teachers, students, and the wider public throughout this nation and indeed the world.

Teachers are treated as colleagues throughout the seminar process. Unlike conventional university or professional development courses, Institute seminars involve at their very center an exchange of ideas among teachers and Yale faculty members. This is noteworthy since the teachers admitted to seminars are not a highly selective group, but rather a cross-section of teachers in the system, most of whom, like their urban counterparts across the country, did not major in one or more of the subjects they teach. The Institute's approach assumes that urban public school teachers can engage in serious study of the field and can devise appropriate and effective curricula based on this study.

Through 2009, the Yale-New Haven Teachers Institute has offered 192 different seminars to 674 individual teachers, many of whom have participated for more than one year. (Please see Appendix for a list of the Fellows.) The seminars, meeting over a five-month period, combine the reading and discussion of selected texts (and often the study of selected objects, images, or aspects of the local environment) with the writing of the curriculum units. Thus far, the teachers have created 1744 curriculum units. Over the years, a total of 103 Yale faculty members have participated in the Institute by giving one or more seminars. (Please see Appendix.) Of them, seventy-two have also given talks. Fifty-one other Yale faculty members have also given talks. About half of these 154 participants are current or recently retired members of the faculty.

The Institute's twentieth year, 1997, had brought to a climax a period of intensive development of the local program.

The Institute's twentieth year, 1997, had brought to a climax a period of intensive development of the local program. That had included placing all Institute resources online, providing computer assistance to the Fellows, correlating Institute-developed curriculum units with new school-district academic standards, establishing Institute Centers for Curriculum and Professional Development in the schools, and establishing summer Academies for New Haven students. In that year, while continuing to deepen its work in New Haven, the Institute began a major effort to demonstrate the efficacy of its approach in other cities across the country.

This effort involved in 1998 the planning stage of a National Demonstration Project. In 1999 partnerships were established between colleges or universities and school districts at four sites that planned to tailor

the Institute's approach to local needs and resources. Implementation grants were awarded to four new Teachers Institutes – including Pittsburgh (what is now Chatham University as well as Carnegie Mellon University). These grants enabled them to work with the Yale-New Haven Teachers Institute for an initial period of three years, from 1999 through 2001.

In 2002-2003 the Institute's work on the national level was notably assisted by an extension of support for the National Demonstration Project which enabled the two-year Preparation Phase of the Yale National Initiative to be brought to completion. The Preparation Phase included Research and Planning Grants, which have significantly contributed to the evaluation of the Teachers Institute approach. The Preparation Phase enabled the Yale-New Haven Teachers Institute to collate and analyze data from the questionnaires and surveys conducted during the National Demonstration Project, establish a Web site for the Yale National Initiative, and prepare the "Understandings" and "Necessary Procedures" that would serve as the basis for membership in a new League of Teachers Institutes®. The Preparation Phase made possible a summary evaluation of the National Demonstration Project by Rogers M. Smith and other researchers at the University of Pennsylvania, and culminated in 2004 with the announcement of the Yale National Initiative to strengthen teaching in public schools in states throughout the country.

In 2009 eleven cities and counties in ten states participated in the National Initiative. These included cities that already had Teachers Institutes – New Haven, Philadelphia, and Pittsburgh – and six communities that the Initiative had targeted for their potential to establish a new Teachers Institute. Initially, superintendents of public schools in these communities nominated teachers to become Yale National Fellows who would participate in national seminars, led by faculty members experienced in the Institute approach. In this way, teachers might learn first-hand about that approach and might become leaders in exploring the creation of a Teachers Institute for their home community. Although they meet on a compressed schedule, the national seminars have the same expectations as New Haven Institute seminars. The National Initiative conducts an annual series of activities: an Organizational Session of the seminars that National Fellows attend each May; an Intensive Session of seminars for two weeks each July, which Institute directors and college and university faculty members from participating cities also attend; and an Annual Conference each October where school officials learn more about the Institute approach from National Fellows, national seminar leaders, and other faculty.

*In 2009 eleven cities
and counties in ten
states participated
in the National
Initiative.*

The present report focuses on the activity undertaken by the Yale-New Haven Teachers Institute in 2009. Extensive material on the National Initiative is available on the Initiative Web site.

The Program in New Haven

This section of the report covers the offerings, organization, and operation of the Institute's 2009 program for the New Haven teachers who participated as Fellows. It draws extensively upon the evaluations written by Fellows and seminar leaders at the conclusion of their participation. Here the report documents teacher interest in Institute seminars, as well as the content of the seminars that have been offered, the application and admissions process, the participants' experience in the program, and the preparation for 2010 offerings. It outlines the process of local documentation and evaluation.

We hope that this section may prove useful to those in communities who are contemplating the establishment of such Institutes.

We hope that this section of the report will be of interest to all those who assist in supporting, maintaining, and expanding the program in New Haven. We hope that its account of our local procedures may continue to prove useful to those who have established new Teachers Institutes, and to those in other communities who are contemplating the establishment of such Institutes.

The Institute and Initiative Web Sites

The Web site of the Yale-New Haven Teachers Institute makes available electronic versions of the Institute's publications – including the volumes of curriculum units, reports and evaluations, essays and other materials concerning the Institute's work since 1978. (The address is yale.edu/ynhti.) The Web site is valuable for New Haven teachers; it played a key role during the National Demonstration Project; and that role has grown as the Yale National Initiative proceeds. The Web location has been advertised prominently in the periodical *On Common Ground*[®], which contains articles regarding school-university partnerships and reaches a national audience. The Institute's Web site has continued to be among the most popular on Yale University's Web server.

The Web site of the Yale National Initiative, (the address for which is teachers.yale.edu) presents the curriculum units written by the Yale National Fellows who participated each year in national seminars; publications and video programs on the Teachers Institute approach; and news and other information about the Initiative and the League of Teachers Institutes. From the national Web site, teachers and others may search and comment on the curriculum units written in national, as well as local Teachers Institute, seminars.

On Common Ground[®]

On Common Ground is published periodically by the Yale-New Haven Teachers Institute. It is concerned with the development of teachers and of their curricula through school-university partnerships. Its title, derived from that of the first book on the Institute's work, *Teaching in America: The Common Ground*, is intended to suggest that university and school teachers across the country have a strong mutual interest in the improvement of

teaching and learning in schools. The periodical focuses on the issues that have arisen and continue to arise in university-school partnerships of many kinds throughout the United States. The circulation of the periodical is some 15,000 nationwide and includes the Chief State School Officers; superintendents of school districts enrolling 5,000 or more students; all college and university presidents and chancellors and chief academic officers; deans and directors of education, continuing education, and graduate programs at four-year institutions; directors of community services and governmental relations at four-year institutions; heads of many corporations, foundations, and professional organizations involved in education reform; education policy makers at both the Federal and state levels; members of the print and broadcast media who cover education; and a growing list of individuals who have asked to receive it.

Each number of *On Common Ground* has a topical focus, developed in one or more lead essays, and also deals more briefly with other matters of current interest. Number 13, published in 2009, concerned “Learning through Vision and Re-Vision.” This number contained articles by faculty about national seminars they have led and by National Fellows about student response to curriculum units they have written, and also included a condensed version of a new report on the efficacy of the Teachers Institute approach.

THE PROGRAM IN NEW HAVEN

The Seminars and Curriculum Units

A tenet of the Institute's approach has been to determine its offerings in response to the needs teachers themselves identify.

From its inception, a tenet of the Institute's approach has been to determine its offerings annually in response to the needs for further academic preparation and curriculum development that the teachers themselves identify. In 2009 this process, as described later in the report, resulted in the presentation of five seminars, two in the humanities and three in the sciences, technology and mathematics. Teachers' participation in these seminars was greatly assisted by the annual contribution from the New Haven Public Schools. With support also from income on its Endowment and from the Howard Hughes Medical Institute and the National Science Foundation, the Institute offered:

- "Writing, Knowing, Seeing," led by Janice Carlisle, Professor of English
- "The Modern World in Literature and the Arts," led by Pericles Lewis, Professor of English and of Comparative Literature
- "Science and Engineering in the Kitchen," led by Eric R. Dufresne, John J. Lee Assistant Professor of Mechanical Engineering and Assistant Professor of Chemical Engineering and of Physics
- "How We Learn about the Brain," led by William B. Stewart, Associate Professor of Anatomy (Surgery)
- "Evolutionary Medicine," led by Paul E. Turner, Associate Professor of Ecology and Evolutionary Biology

The following overview of the work in the seminars is based on the descriptions circulated in advance by the seminar leaders, the introductions they wrote to the volumes of curriculum units produced in their seminars, and the curriculum units themselves.

Writing, Knowing, Seeing

How does writing help us know what we see? By considering the theoretical bases of that question, Fellows in this seminar developed curriculum units that explore its practical implications. Because analysis treated not only the physical act of seeing but also vision as a metaphor for understanding – as in "I see what you mean" – the seminar examined both what looking closely at an object can teach the viewer and how the act of writing fosters comprehension. The ordering of the three terms in the title of the seminar was meant to encourage new ways of conceiving the relation between perception and articulation. The curriculum units presented in this volume often acknowledge that writing comes before seeing.

The seminar examined both what looking closely at an object can teach the viewer and how the act of writing fosters comprehension.

The seminar leader asserted that we live in a culture increasingly dominated by information and misinformation presented in pictorial forms, with the Internet one example of a medium whose flood of constantly changing images threatens to make genuine comprehension seem impossible. According to psychologists, approximately 80 percent of what we know about the world comes to us through our eyes. The same experts explain that vision is not a matter of processing full and continuous physical data registered on our retinas; rather, our minds create the illusion that sight provides a detailed and comprehensive report on the external world. Because seeing also depends on words, sight is an even more complicated mechanism than scientists understand it to be.

Fellows in this writing seminar explored in particular the relationships between what Annie Dillard calls “seeing” and “verbalization” as revealed in the kinds of academic writing that involve observation, analysis, and argumentation. Participants read the work of authorities in the disciplines of cognitive science, media studies, and aesthetics, before turning from theory to practice, developing several questions that came to guide the common work: How does focusing on vision help students become better writers? What does looking at an image or an object do for the teacher of writing that cannot be accomplished by examining words alone? The collected units offer a number of different answers to those questions, resulting in part from the fact that this seminar, in its form and content, resembled both a course about writing and a course about the teaching of writing: constituting themselves as members of a writing workshop, the Fellows put into practice the assumptions and ideas about writing that were discussed.

During two sessions, participants in this seminar benefited from two of Yale’s professionals in the area of visual literacy: Barbara Rockenbach, Director of Undergraduate and Library Research Education at Bass Library, and Linda Friedlaender, the Curator of Education at the Yale Center for British Art. Both demonstrated how students need to be encouraged to speak freely about a visual object without receiving information about it that would influence what they might or might not say.

The curriculum units fall into three distinct, but often overlapping groups. Many specific topics are broached again and again: the role of visualization in reading and writing, the relation between word and image, and the power of visual materials to motivate students to talk and to write in analytically productive ways. The first series of units are by middle-school teachers. Ekaterina Barkhatova aims to help bilingual students strengthen their academic prose; by using photographs that depict migration and immigration, she offers a cross-disciplinary unit, including the areas of language arts and social studies and even the sciences. Caitlin Dillon turns to cognitive science to examine how experiences contribute to different kinds of mental models and to theorize about the relation between visualization and verbalization, comprehension and retention. Deirdre Prisco also makes use of the findings of cognitive science as the basis of her account of how to incorporate visual

Constituting themselves as members of a writing workshop, the Fellows put into practice the assumptions and ideas about writing that were discussed.

journaling in one's lessons: by exploring the relation between visual experience and the processes of memory and attention and visualization, she argues that allowing students to create images is a way of helping them use words.

The units in the next group turn to specific subjects taught at the high-school level. Proposing a unit to be used in his psychology course for eleventh and twelfth graders, Justin Boucher explains that writing is a “form of cognition” and presents exercises based on the assumption that students should think about writing with as much self-conscious attentiveness as they are asked to offer the material in their psychology textbooks. Leszek Ward and Melissa Dailey maintain that emphasizing the visual qualities of a Shakespeare play, both as enacted on the stage and as communicated on the page, encourages English students to think about problems well beyond the realms of literature and history. Constructing lessons dealing with *The Tempest* for the eleventh- and twelfth-grade students, Leszek Ward argues that literature, in this case in the person of Prospero, has the power to change one's perspectives and therefore one's knowledge and understanding about such diverse issues as forgiveness, criminality, and cross-cultural confusion. Melissa Dailey, in her plans to teach *Hamlet* and *Macbeth*, makes a case for the similarities of the challenges faced by the two tragic heroes of those plays and by her students: in her account, both “the illusory world of the spiritual” that Shakespeare conjures up and “the illusory world of the Internet” pose dangers.

The final unit in this group responds, as hers does, to an article by N. Katherine Hayles, “Hyper and Deep Attention: The Generational Divide in Cognitive Modes.” Hayles proposes that today's students are “hyper”-attentive learners: because all the various visual technologies available to them have trained them to respond simultaneously and quickly to different sources of stimuli, they have trouble mustering the “deep attention” required for extended, solitary, and quiet acts of reading. By asking how visual images of the kinds of behavior that express love can help her students move from the hyper to the deep, Marialuisa Sapienza is concerned not only with two different ways in which students attend to the world but also with their great variety of skills and experiences.

The last three units were written by Mary Lou Narowski, Alice Smee, and Deborah Boughton, and the first two also respond to Hayles's theories about hyper and deep attention. Mary Lou Narowski asks students in her seventh-grade language-arts classes, What is art? – that question becomes the basis for analysis of photographs and paintings, concluding with an exercise that asks students to choose and defend the objects they want to include in a classroom art gallery. Alice Smee, too, suggests that working with visual materials in middle-school grades can be a way of lessening the stress students often feel when required to write, and she hopes to teach them the importance of visualization as a way of strengthening both their engagement in what they write and their abilities to elaborate on and prove their written assertions. Deborah Boughton's unit explicitly coordinates visual thinking strategies with the goals

and practices of literary analysis; her lessons on the ambiguities in visual and verbal texts include images from a past exhibition at the Yale Center for British Art, images available to all teachers on the Center's Web site, as well as paintings in its permanent collection.

In her introduction to the units, the seminar leader offered "a note of gratitude to the members of this seminar: talking with them over a series of weeks and months has allowed me to rethink how I teach writing to college freshmen in ways that I never could have predicted."

The success of the Fellows' efforts to be both skilled writers and effective teachers is ... evident in many of the units: striking insights conveyed in memorable turns of phrase, elegant and apparently effortless organization of complicated arguments, and instances of a thoughtful concern for the interests of their readers, all these qualities frequently characterize these units Impressive examples of dedication, insight, and resourcefulness, these Fellows have encouraged me to revise – to see again from wholly new perspectives – how to use visual images and visual phenomena as catalysts for writing instruction. My students this fall will no doubt be the beneficiaries of the Fellows with whom I have had the pleasure to work – as will be, I predict, anyone who reads the units.

The Modern World in Literature and the Arts

This seminar's premise was that literature and the visual arts offer outstanding opportunities to teach students about the modern world. The modern world opened up new ways of representing reality that would be appropriate to a period of constant change, when people were migrating from the country to the city, and across national borders. Modern writers and artists were often keenly aware of living in a world that was utterly different from that of their parents, whether because of new religious and scientific beliefs, industrialization, changing attitudes to sex and gender, or transformative political events. Many modern writers and artists produced their works in an effort to display what was distinctively modern about the times in which they were living. This seminar explored these experiments, which sometimes involved getting rid of traditional structures (like rhyme or meter in poetry, or perspective in painting) and often involved a focus on the special role of the observer.

Participants in the seminar discussed classic works of twentieth-century literature and art from around the world that address the unique problems of modern life. Many of the stories discussed in the seminar were written in the first person, offering accounts of what it is like to experience the rapid changes of modern life. The works were selected because they were likely to be of interest to teachers and also to middle- and high-school students; many of the themes could also be incorporated in elementary-school classrooms.

Participants in the seminar discussed classic works of twentieth-century literature and art from around the world that address the problems of modern life.

The section on Europe explored some of the major modernist literature that transformed literary methods of representing the world, including Franz Kafka's story "The Metamorphosis," and poems by William Butler Yeats and Federico García Lorca. The section on Africa discussed Chinua Achebe's novel *Things Fall Apart* and Albert Camus's "The Guest," both concerned with the colonial encounter in Africa. Several sessions, on the Americas, explored the history of migrations in the Western Hemisphere in stories by William Faulkner, Richard Wright, Gabriel García Márquez, and Leslie Marmon Silko and poetry by Langston Hughes. Under the guidance of curators Jessica Sack and Kate Ezra, the seminar visited the Yale University Art Gallery and explored paintings and sculpture from Europe, Africa, and the Americas.

The Fellows teach subjects ranging from first grade to Advanced Placement.

The Fellows teach subjects ranging from first grade to Advanced Placement, including middle-school language arts, social studies, and special education, and high-school Spanish, English, and Art. The units are presented according to subject matter and grade level.

Two units explore modern art. Christine Elmore introduces elementary-grade students to the Pop Art of Andy Warhol, combining art with reading, writing, history, and drama and also touches on related art movements such as the Abstract Expressionism of Jackson Pollock. Sara Thomas's unit on "Futurism: Capturing Modern Technology," designed for advanced courses in high-school art, uses students' interest in emerging technologies to explore some of the leading movements of twentieth-century art, drawing upon resources of the Yale Art Gallery.

Three Spanish teachers explored a range of Spanish-language works. Laura Tarpill draws on the Uruguayan writer Horacio Quiroga to entice students into reading Spanish texts. María Cardalliaguet Gómez-Málaga challenges advanced students by introducing them to works of Federico García Lorca and Rafael Alberti, as well as to the art of Luis Buñuel and Salvador Dalí to teach about the broader cultural context of Spain in the period leading up to the Spanish Civil War. Valbona Karanxha, who teaches at the middle-school level, proposes an introduction to the works of Isabel Allende and Gabriel García Márquez in translation to permit beginning Spanish students to develop cultural understanding of Latin America. Like the high-school Spanish teachers, Crecia C. Swaim attempts to balance language learning with cultural literacy and confidence-building in "Poetry and Differentiated Instruction in the Middle-School French Classroom."

Three other units focus on middle-school language arts, social science, and English to speakers of other languages. Julia Biagiarelli introduces eighth-grade language arts students to the writings of five writers from immigrant families: Gary Soto, Laurence Yep, Julia Alvarez, Amy Tan, and Roberto Felix Salazar, after introducing the historical background to U.S. immigration since the late nineteenth century. Susan Holahan addresses a similar set of issues for a group of middle-school students in English to speakers of other languages



The seminar on “The Modern World in Literature and the Arts.” (Left to right: seminar leader Pericles Lewis; and Fellows Hoyt G. Sorrells, Crecia C. Swaim, and Julia M. Biagiarelli.)

using short excerpts from works by Hispanic writers whose works have been translated into English, including Pablo Neruda and Octavio Paz, as well as one Hispanic writer in English, Sandra Cisneros. In a social studies unit, Hoyt G. Sorrells brings some of the literary concerns of the seminar to bear on historical sources, inquiring into ways that American history textbooks have described nineteenth-century policies such as the Monroe Doctrine and the policy of Manifest Destiny and related historical developments involving settlement of the west and re-settlement of native populations.

Finally, three of the units, by high-school English teachers, focus on aspects of modern North American literary history and interpretation. Sandra Friday aims for students in this unit to learn how to analyze stories (including Faulkner’s “The Bear”) and also how to write their own stories making use of various forms of symbolism. Matthew S. Monahan explores a group of writers who remain of enduring interest for teenagers today, the Beats, who rebelled against what they perceived as an era of conformity and suburbanization. Shannon Ortíz explores the experiences of Puerto Ricans both on the island of Puerto Rico and on the U.S. mainland in a unit, designed for advanced high school students of English, that draws on literature by Piri Thomas, Esmeralda Santiago, and others while encouraging students both to keep a journal on their reading and to create a multidisciplinary artistic project.

The seminar benefited from the involvement of Kate Ezra and Jessica Sack of the Yale University Art Gallery, who guided visits to the European, African, and American collections. Participants’ exploration of literary representations of modern experience was enriched by considering parallels in the visual arts.

Science and Engineering in the Kitchen

This seminar assumed that every child is a natural scientist and every kitchen a laboratory.

This seminar assumed that every child is a natural scientist and every kitchen a laboratory in disguise. Participants explored these ideas to develop approaches for teaching science to students in elementary and middle school. Discussions were supported by Harold McGee's text, *On Food and Cooking: The Science and Lore of the Kitchen*. The seminar emphasized direct inquiry through experimentation and demonstrations.

Participants engaged in a wide spectrum of activities, from live demonstrations using new technology in the seminar leader's lab – such as grabbing onto individual yeast cells with holographic optical tweezers – to simple seminar-room experiments done with things exclusively from the kitchen. The latter were designed to be easily replicated in Fellows' own homes and schools, and to allow Fellows' elementary and secondary-grade students themselves to develop similar experiments, including for school science fairs. The seminar-room experiments involved such exercises as exploring emulsions by making mayonnaise, and practicing the scientific method by figuring out how much detergent is needed to mix oil and water. Employing this spectrum of sophisticated and simple experiments, the seminar aimed for Fellows to see the connection between everyday science and modern research. A number of field trips, for example one that examined cheese-making, supplemented seminar and lab meetings.

Some of the units address the science of food. How is candy made? How do microorganisms help us make food? Roberta Mazzucco seeks to give third graders an exciting experience with candy making, while teaching them a fundamental principle – that heat has extraordinary effects on sugar molecules. In an interdisciplinary unit for the middle grades, Pedro Mendia-Landa considers some of the beneficial microorganisms that are used in cooking, and how the use of bacteria and yeast in cooking may introduce some basic principles and ideas about chemistry. Stephanie Sheehan's second-grade science unit provides opportunities for students to sort and observe various properties of solids, then to do the same for liquids, in order to begin to understand how energy affects matter and how the movement of molecules affects the materials we see, touch and eat. Melissa Talarczyk's unit, designed for kindergarten to second grade, allows students to discover how flour and baking soda react as they are mixed with a variety of liquids, and to observe changes that occur as a liquid, colored sugar water, freezes, melts and evaporates; students will see demonstrations of the three phases of matter, leading into discussion of the water cycle or weather patterns. Huwerl Thornton's unit considers different types of mixtures, including solutions, gels, and foams, as well as emulsions and suspensions, in teaching science, math, and reading in the early grades.

Some units are focused on teaching basic scientific principles using examples from the kitchen. What is the scientific method? What are solids and liquids and why are some materials hard to classify? What are the differences

between igneous and sedimentary rock? Middle-school science teacher Karen Beitler developed a unit that uses food to teach about the transition from small molecules to the complex molecules that make cells and ultimately organisms. Teaching the scientific method to early-grade students, Carol Boynton involves them in performing experiments, measuring and analyzing data. Roisin Macdonald's unit is intended to lead seventh-grade students through an exploration of the physical and chemical properties of matter, specifically baked treats, including the fermentation process of yeast feeding upon sugar water producing carbon dioxide and alcohol as waste products. Amy Piccirillo, also working with middle-school students, aims for them to learn the three main groups of rocks and the rock cycle and also be able to show how energy within the Earth is transferred within the rock cycle, as well as explain how internal energy of the Earth causes matter to cycle through the magma and the solid earth. Scott Raffone's grade-nine algebra unit uses ratios and proportions to make a traditional Italian marinara sauce, and the Cartesian plane to discover linear expressions and make predictions on some of the results of boiling water; the unit includes a brief history of lines and planar figures with attention to three-dimensional figures and volume.

Other units take a broader view and use food and cooking as a means to introduce students to new cultures and careers. Waltrina Kirkland-Mullins aims to teach third graders chemistry and geography, as well as language arts, through traditional Korean foods at her internationally-themed school. Erica Mentone seeks to teach second graders about the career of engineering, while capitalizing on their strengths in a hands-on unit integrating science, math, and writing instruction.

"The units Fellows developed," according to the seminar leader, "are far-reaching and fun. As a group, we placed special emphasis on the development of hands-on classroom activities using materials and tools found in the kitchen."

How We Learn about the Brain

Though much is known about the brain's function, many of us have little idea how the nervous system is studied. This seminar examined a variety of approaches to the study of the brain. The overall aim was to expose Fellows and their students to some of the details of the science that has revealed how the brain works. The seminar was intended for teachers of biology and anatomy at all levels, as well as teachers of social or environmental studies, psychology, and art.

The seminar leader underscored that much of what we know about our own brains is derived from study of the brains and sensory organs of other animals. Why do birds see so much better than humans? Why does the elephant hear so well? We can also study the brain and senses by investigating how disease, injury and drugs alter their functions. Stroke, brain injury, alcoholism, Parkinson's Disease, Alzheimer's Disease, Huntington's Disease,

This seminar examined a variety of approaches to the study of the brain to expose Fellows and their students to the science that has revealed how the brain works.



Peter Casolino

The seminar on “How We Learn about the Brain.” (Clockwise from left: seminar leader William B. Stewart; and Fellows Larissa Giordano, Darla Martinez, Sam H. Jones, Jennifer B. Esty, Ruth K. Chaffee, Andrea N. Bailey, and Nicholas R. Perrone.)

poor nutrition and drugs – both prescribed and illicit – alter the way we sense, think and behave. We can study the structure and function of the normal human brain through a variety of diagnostic procedures. These include recording of brain electrical activity by EEG, or through electrical potentials evoked by flash stimulation of the eye and by tone stimulation of the ear. Modern imaging methods like the MRI and CAT scan have allowed volume measurements of specific regions of the brain. More recent advances have permitted visualization of functional activity of the brain.

The units cover a wide range of topics, from the embryonic human brain to the hearing of the elephant. Teaching science and technology to students in the elementary grades, Nick Perrone examines the receptor organs and brains of the sea turtle, elephant and eagle, animals with sensory capacities that far exceed those of humans. Andrea Bailey’s unit is intended for the primary grades; she examines the role of nutrition in the growth of the brain and in learning. Ruth Chaffee introduces high-school students, in a special education curriculum, to the structure and function of the brain, focusing on behaviors that will enhance or degrade thinking. Jennifer Esty’s unit is written for a class of pregnant high-school students and follows the development of the brain before and after birth, with the importance of proper maternal nutrition and postnatal sensory stimulation discussed. Larissa Giordano explores the effect of drugs on the brain; given specific, age-appropriate explanations, her third-grade students will be better poised to make sound decisions. Darla Martinez has written a unit to introduce kindergarten students to the five senses. Sam Jones uses examples from the structure and function of the brain to teach high-school mathematics, using topics including comparing the reaction times of mouse and giraffe and analysis of the frequency of musical tones.

Evolutionary Medicine

As described by the seminar leader, evolutionary biology involves studying genetic changes within populations over time, and resolving relatedness among species. Although evolution is central to the understanding of biology and the history of life on Earth, one problem with teaching evolutionary biology is that students often fail to grasp its applied significance. Evolutionary medicine is the application of evolutionary thinking to gain valuable insights and new perspectives into human health and disease, demonstrating that knowledge of evolution vitally impacts our everyday lives.

The aim of this seminar was to explore ways to teach students about aspects of evolutionary medicine, emphasizing that this interdisciplinary science helps explain the origins of many medical conditions, including obesity, diabetes, asthma, heart disease, allergies and aging. The seminar stressed that evolutionary medicine informs why humans often suffer from infectious diseases, ranging from benign to deadly, and how illnesses such as smallpox, malaria, AIDS and the flu have profoundly influenced human evolution, societal interactions, and major historical events. The seminar incorporated instruction and discussions of readings on evolutionary medicine, some hands-on laboratory experiments, and tours of museum exhibits relating to evolutionary biology and the impact of this science on art and culture. The seminar was intended for teachers of science, mathematics and social studies at all grade levels.

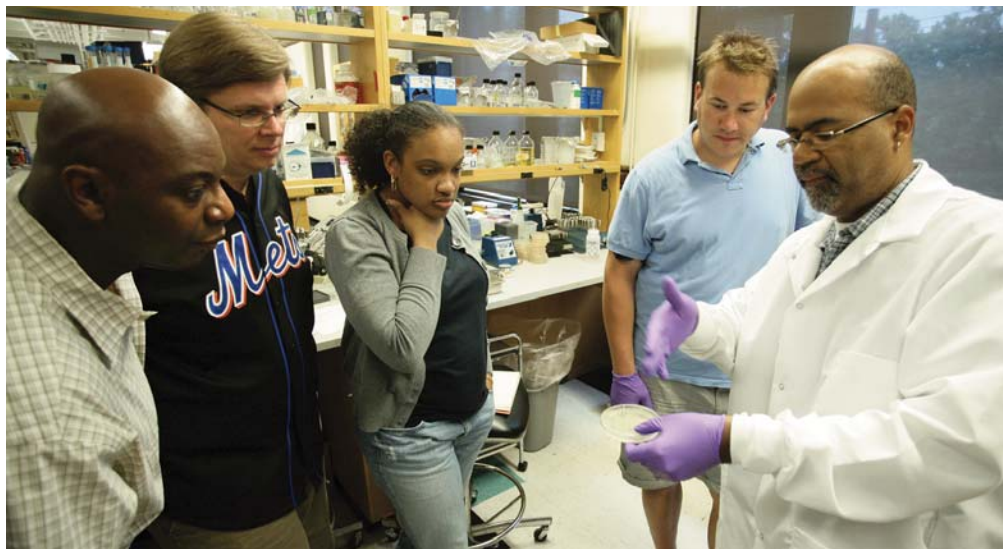
The resulting units were diverse, reflecting the varied interests and backgrounds of the Fellows. Joseph Corsetti, with high-school history students in mind, examines the historical controversies and ethical issues relating to eugenics: selective breeding in humans. A high-school biology teacher, Fallon Daniels looks at evolutionary biology through the lens of infectious diseases, emphasizing how human evolution can be better understood by studying the microbes that make us sick. Teaching middle school, Todney Harris focuses on the Columbian Exchange, and the historical impact caused by movement of pathogens between the Old World to the New World. Paul Jones, another high-school biology teacher, shows that evolution may be taught from the perspective of genetic changes in virus populations, a useful tool for convincing reluctant students that evolution exists and is a matter of life and death. Teaching history of science and epidemiology to high schoolers, John Laub examines the role of twentieth-century government in protecting public health against the spread of deadly infectious diseases, and allows students to debate policy in this area.

Kathleen Rooney uses a mathematics unit to show how math functions are useful for translating data into models, especially in the case of Lyme disease and West Nile fever, for students at her health careers-oriented high school. Nancy Schmitt's high-school math unit warns students that human health may be adversely affected by increased levels of toxic pollutants, similar to the alarming declines evident in frog and other amphibian populations. Two other

The aim of this seminar was to explore ways to teach students about evolutionary medicine, emphasizing that this interdisciplinary science helps explain the origins of many medical conditions.

Genetic changes in virus populations provide a useful tool for convincing reluctant students that evolution exists.

high-school math units follow. Hermine Smikle's work connects biology with mathematics, showing that math concepts can be usefully demonstrated by examining growth and spread of disease microbes. Kenneth Spinka's unit seeks to prepare students for math and physics by exploring mathematical probabilities in evolutionary medicine, especially the generation of fractals.



The seminar on “Evolutionary Medicine.” (Left to right: Fellows Todney Harris, John K. Laub, Fallon L. Daniels, and Paul M. Jones; and seminar leader Paul E. Turner.)

The Process of Determining the Seminar Topics

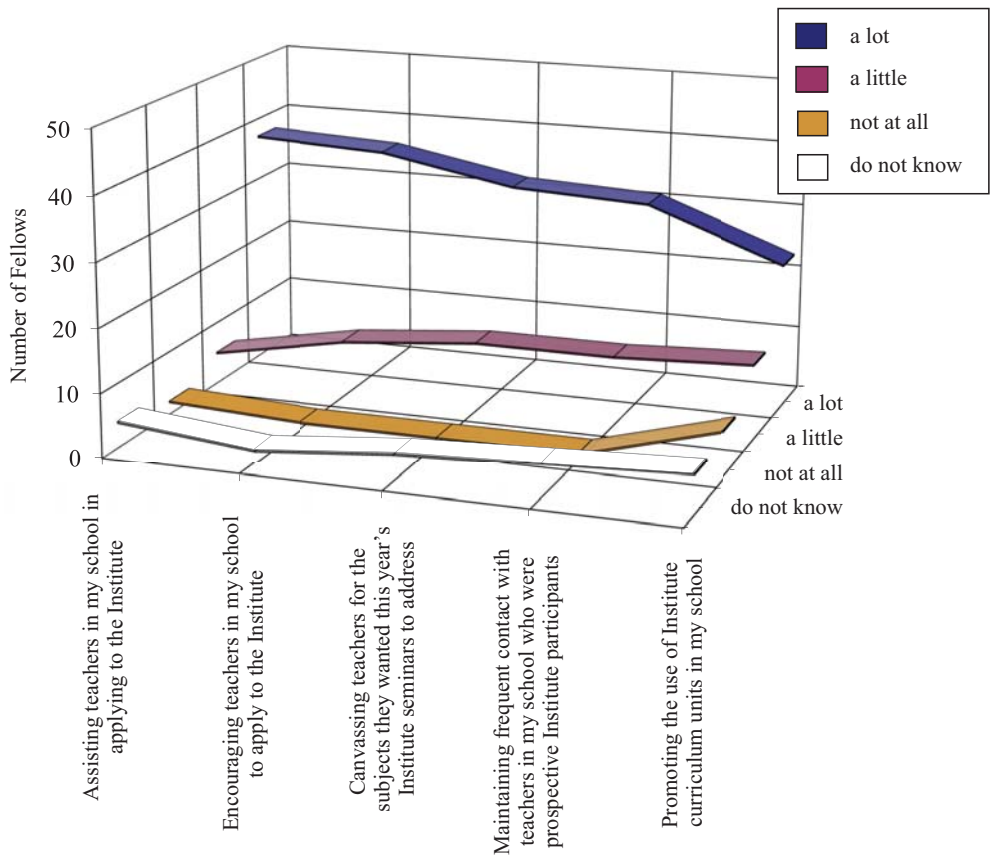
The Representatives and Contacts canvassed other teachers throughout New Haven elementary, middle, and high schools to determine the topics they wanted Institute seminars to address.

Between October and December 2008, the teachers who served as Institute Representatives and Contacts for their colleagues had canvassed other teachers throughout New Haven elementary, middle, and high schools to determine the topics they wanted Institute seminars to address in 2009. (Please see Appendix for lists of teacher leaders.) The Representatives met together twice monthly and communicated individually with the school Contacts with whom they were responsible for staying in close touch. The Director and Associate Director of the Institute then approached Yale faculty members who were qualified and available to lead seminars on the desired topics. The Representatives then considered and selected from among seminar proposals faculty members wrote.

In their evaluations, the 2009 Fellows indicated that the Institute Representative for their school had been helpful in many ways: by encouraging and assisting them to apply to the Institute, maintaining frequent contact with them, asking for their views on seminar subjects for the following year, and promoting the use of Institute-developed curriculum units. (Chart 1, reading from left to right, moves from the more helpful to the less helpful activities of the Representatives.) As a result, most Fellows (78 percent) said in the end that they had, while the program was being planned, sufficient opportunity to suggest possible topics for seminars. This is comparable to the rate of satisfaction indicated by the Fellows in 2006, 2007, and 2008 (85, 80, and 78 percent, respectively).

Chart 1

Institute Representatives' Helpfulness to the 2009 Fellows



The Fellows' Application and Admissions Process

Having worked with teachers in their respective schools during the preceding months, the Institute Representatives met on January 8 to receive for distribution in all schools copies of the Institute application form, brochure, and descriptions of the seminars to be offered. At this meeting a general presentation of the subjects of the seminars ensured that all Representatives could explain to their colleagues the purpose of each seminar. On January 13 the Institute held an Open House for prospective applicants where any teacher might learn more about the planned seminars from the Representatives and from the seminar leaders, who made brief presentations about the seminars they would lead and conducted discussions in small groups with teachers who might apply. On January 20 the Representatives met to discuss their progress in working with prospective applicants and to hand in their own completed applications. The final deadline for teachers applying to the Institute was January 27. This date was selected so that teachers would apply in advance of the February school vacation. The office would then have the vacation period to process application materials, and the review of applications could be completed during February to provide the earliest possible notification to teachers who were accepted.

Annual Report: The Program in New Haven

There are four principal criteria for teachers to be eligible for consideration as Fellows:

- The applicant must be a current New Haven school teacher who will be teaching in New Haven also during the school year following Institute participation.
- The applicant must agree to participate fully in the program by attending and coming prepared to all scheduled meetings and by completing research and meeting due dates in the preparation of a curriculum unit.
- The teacher must demonstrate in the application that his or her specific interests are directly related to the seminar as it has been described by the seminar leader.
- The applicant must also show that the seminar and the curriculum unit that he or she proposes to write are directly related to school courses that he or she will teach in the coming school year.

The small size of the seminars is necessary both for collegiality and for the individual attention that each teacher's work in progress receives.

It has long been the policy of the Institute to accept no more than twelve teachers in any seminar. The small size of the seminars is necessary both for the collegiality of the Institute experience and for the individual attention that each teacher's work in progress receives from the seminar leader and from other teachers in the seminar. Each year the Institute aims to gauge the amount of teacher interest in order to offer enough seminars of this limited size to accommodate almost all the teachers who wish to participate. Aided by reports on prospective Fellows in every school that are updated bi-weekly as a result of canvassing their colleagues, the Representatives determine the appropriate number of seminars for the Institute to offer and the topics on which the seminars should focus.

During the planning process for 2009, ninety-seven teachers expressed definite interest in participating in one of the seminars that might be offered. Of those teachers, forty-nine were from high schools, eleven from middle schools, and thirty-seven from elementary and K-8 schools. By the application deadline, the Institute Representatives, assisted by the school Contacts, had obtained applications from sixty-four of these teachers.

The Fellows application form asks interested teachers to specify the subjects and grade levels they teach, the course or courses in which they plan to introduce the content they study in the Institute, and their willingness to meet each of the Institute's requirements for full participation. The applicants also write a brief essay describing why they wish to participate in the seminar to which they are applying, and how the curriculum unit they plan to write will assist them in their own teaching. Writing this essay is, in effect, their first step in formulating a curriculum unit through which they will bring the subject matter they study from the seminar into their own teaching.

Annual Report: The Fellows' Application and Admissions Process

A team application form requires teachers who wish to apply together to demonstrate how they envision working in inter-grade or interdisciplinary ways and to describe plans for a culminating activity in the school. Teams may receive preference during the admissions process, and must submit a final report on their work during the following school year. If a team is not admitted as a group, however, members of the team may be accepted individually. The Institute also encourages Fellows from the same school to work as an informal team.

All applications were reviewed by three groups: seminar leaders, school principals, and seminar Coordinators. The seminar leaders examined the applications for their relationship to the seminar subject. This afforded each leader an opportunity, as well, to tailor or expand the seminar bibliography to address the specific interests of the teachers who would be accepted. At the same time, the applications were reviewed in the teachers' schools; the Institute Representative provided the teacher's principal a copy of his or her application. This increased awareness of the projects that teachers wished to pursue in Institute seminars, allowed the principal to examine the relationship between teachers' proposals and school plans, and helped ensure that teachers would be assigned a course in which to teach the curriculum unit they would develop. In their review, principals answered the following questions:

- Is the applicant's proposal consistent with, and significant for, the curricula and academic plans for your school?
- What are the courses and/or the grade levels where the proposed unit will be used?
- Will the applicant be assigned next year one or more of these courses in which to teach the unit?

When this procedure was introduced in 1998, Reginald Mayo, Superintendent of the New Haven Public Schools, had written to all principals: "We believe this is a highly promising way for ensuring that the assistance that the Institute provides to individual teachers and to teams of teachers has the best prospect for advancing each school's academic plans." In short, this review process informs the consideration of each application, provides each applicant pertinent guidance, and provides an opportunity for Institute Representatives to talk with their principals about the Institute.

Comments principals made on Fellows' applications illustrate the significance and usefulness of the curriculum units the teachers in their school would be preparing.

We have a fast-growing population of ELL [English language learner] students. This is a much-needed addition to our curriculum for our ELL students.

All applications were reviewed by three groups: seminar leaders, school principals, and seminar Coordinators.

"This is a highly promising way for ensuring that the assistance that the Institute provides to individual teachers and to teams of teachers has the best prospect for advancing each school's academic plans."

*—Superintendent
Reginald Mayo*

This project aligns with the school's efforts to cultivate a professional learning community of multifaceted collaboration.

This project aligns with the school's efforts to cultivate a professional learning community of multifaceted collaboration.

The project focuses on the collection of data gathered in meaningful analysis of scientific issues re: health, biotech... . It will solidify linkages between mathematics and science teachers as they collaborate.

The unit is structured to provide new depth to the core curriculum and to support enhanced rigor expectations with its focus on higher-level thinking verbal/written analytical skills.

This proposal is consistent with the academic plan for our school because it is closely aligned with the district and Connecticut ... standards... . This proposal will be used in our grade 7 language arts courses.

Elaboration in writing is a major focus for grades 3-8. The unit will be used in grade 7. Since this teacher serves as writing mentor the unit can easily be expanded into other grades... . It is so important to develop interesting and creative lessons.

The unit will be a model of interdisciplinary, multicultural materials used in instruction that will serve to enhance student engagement and participation.

The science and math concepts work well with our curriculum. Knowing that children learn best by doing, this hands-on unit is an excellent way to engage these first-grade students.

As in the past, the Institute formed a group of teachers who served as Coordinators to assist with the organization and smooth operation of the seminars. The Director, with the advice of teacher leaders, selects these Coordinators from the group of Representatives who become Fellows and who had earlier helped to select seminar subjects and identify interested teachers.

Coordinators provide teacher leadership without diminishing the collegial rapport within each seminar.

There is one Coordinator in each seminar. They act as liaisons between the seminars and a Coordinators committee to facilitate the exchange of information and to provide teacher leadership without diminishing the collegial rapport within each seminar. A seminar Coordinator must be, and must intend to continue as, a full-time teacher in one of New Haven's public schools. A Coordinator accepts the following responsibilities:

- To work with school Representatives at the conclusion of the application process, to serve on an admissions committee to consider proposals for curriculum development submitted by

Annual Report: The Fellows' Application and Admissions Process

teachers applying to become Fellows, and to make recommendations to the Director about whom to accept as Fellows.

- To monitor the progress of a seminar through observation and conversation with participants, and to give progress reports at weekly seminar Coordinators committee meetings.
- To report to the seminar members any organizational information to be circulated, such as the schedule of any visitors and notice of Institute-wide activities.
- To act as a resource for members of the seminar, providing information about unit-writing deadlines, guidelines for writing curriculum units, computer assistance available to Fellows, copyright procedures, and University facilities Fellows may use.
- To support the seminar leader and provide information on Fellows' perceptions of the seminar and on Institute policies generally, and to offer assistance as asked.
- To assist with the smooth operation of the seminar by keeping track of Fellows' promptness and attendance and the timeliness of their written submissions, and by encouraging Fellows to make and keep appointments for individual meetings with the seminar leader.
- To attend and come prepared to weekly committee meetings with the Director or Associate Director and to take professional days as needed for the above purposes.

The Coordinators serve as an admissions committee for the Institute. They met after school on January 28 to become familiar with the guidelines and application review policies for their work together, including the confidentiality of their deliberations and the importance of exercising impartiality and reaching consensus. After reviewing all the applications individually, on February 4 they met for a full day, by taking professional leave, for close consideration of the eligibility of each applicant. They met again on February 10 to resolve remaining issues.



Michael Mansland

Application Review Meeting on February 4. (Left to right: seminar Coordinators Melissa A. Dailey, Larissa Giordano, Julia M. Biagiarelli, Huwerrl Thornton Jr., and Joseph A. Corsetti.)

The Institute seeks to ensure that all Fellows participate in seminars that are consistent with their teaching assignments and applicable in the courses they teach.

During their review, the Coordinators considered the findings of the school principals and seminar leaders and made recommendations to the Director about which teachers the Institute should accept. By these means, the Institute seeks to ensure that all Fellows participate in seminars that are consistent with their teaching assignments and applicable in the courses they teach. The Institute accepted as Fellows fifty-six New Haven teachers, twenty-four in the humanities and thirty-two in the sciences and mathematics. At a joint meeting on February 24 seminar leaders and Coordinators discussed the admissions process just completed, and reviewed the seminar and unit writing process and the policies and procedures of the Institute. In this way, the Coordinators began to provide the seminar leaders with information about the teachers who had been accepted and to discuss their role in assisting with the conduct of the seminars. Several Yale faculty members who had led Institute seminars in earlier years provided an informal orientation for the 2009 seminar leaders, four of whom were leading a Teachers Institute seminar for the first time. This meeting, first held in 2006, has become an annual event.

The Fellows Who Were Accepted

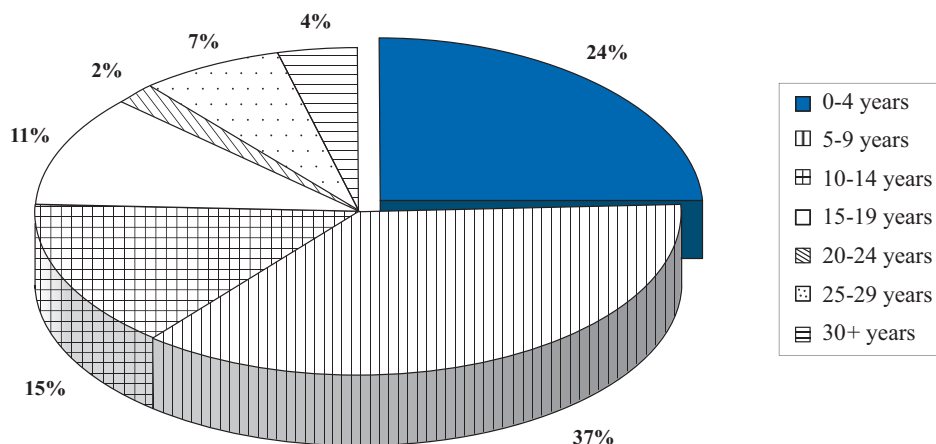
Fellows came from twenty-seven of the district's forty-five schools, including nine of the ten New Haven high schools, one of the four transitional schools, one of the only two middle schools, and sixteen of the twenty-nine elementary and K-8 schools. The Institute first admitted elementary-school teachers in 1990; by 2009 most teachers in the elementary and middle grades were in K-8 schools as a result of the district's school reorganization. Twenty-nine (52 percent) of the Fellows accepted in 2009 were elementary- or middle-grades teachers, and twenty-seven (48 percent) were high-school teachers. Overall, fifteen Fellows taught grades kindergarten-to-five, fourteen taught grades six-to-eight, and twenty-seven taught grades nine-to-twelve. Four schools had five or more Fellows, and fifteen schools had two or more.

Consistent with the Institute's aim to serve the highest possible proportion of all New Haven teachers, twenty (36 percent) of the teachers accepted in 2009 were participating in the Institute for the first time. Of these first-time Fellows, eight were in the humanities and twelve were in the sciences.

The participants included teachers from all stages of their careers. Three first-year and four second-year teachers were accepted, indicating the Institute's potential to assist with the induction of new teachers. Overall, one in four Fellows (25 percent) were age thirty or younger and three fifths (58 percent) were forty or younger (compared with 30 percent as recently as 2001). Fifteen percent of Fellows were forty-one to fifty years old; and 27 percent were older than fifty.

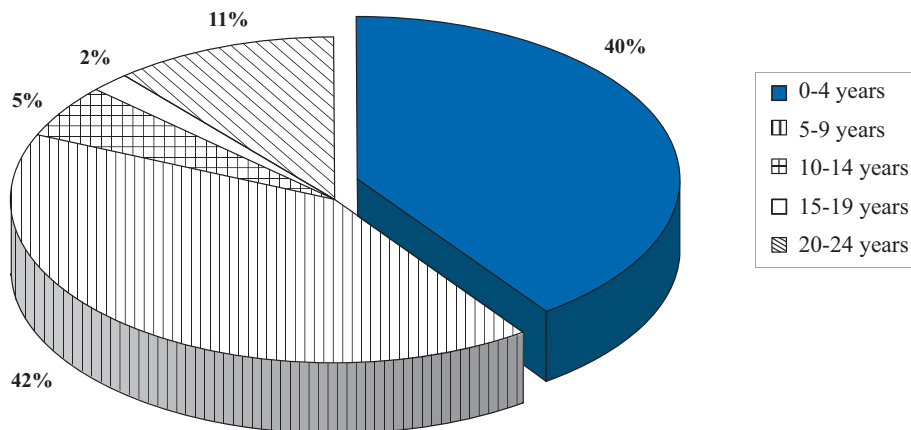
As Chart 2 shows, in 2009 one quarter of the Fellows (24 percent), had four or fewer years of experience in teaching, and more than one third (40 percent) had four or fewer years of experience teaching in New Haven.

Chart 2
Total Years Teaching Experience for 2009 Fellows



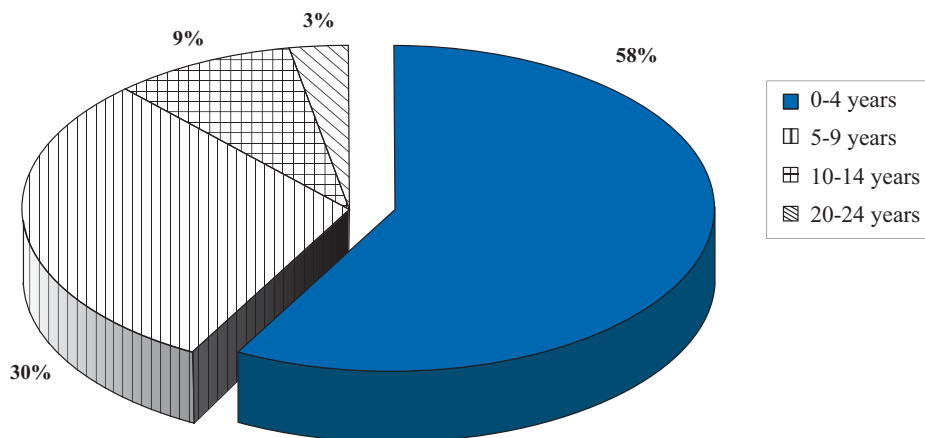
Total Number of Respondents = 46

Total Years Teaching Experience in New Haven for 2009 Fellows



Total Number of Respondents = 45

Total Years Teaching Experience in *Present Position* for 2009 Fellows



Total Number of Respondents = 43

Indicative of the need for the professional development that the Institute provides, three fifths of Fellows had been in their present teaching position four or fewer years.

Indicative of the need for the professional development that the Institute provides, three fifths of Fellows (58 percent) had been in their present teaching position four or fewer years. This helps to explain why many teachers say they need to deepen their knowledge in subjects they have been recently reassigned to teach, or curricular materials for students of a different age or background from those they have taught before.

As in past years, many of the 2009 Fellows did not major in college or graduate school in the subjects they currently teach. As Chart 3 shows, only in art, foreign languages, and bilingual education did all Fellows teaching a subject have a graduate or undergraduate degree in that subject. In two fields, chemistry and physics, no Fellows had a graduate or undergraduate degree.

Many of the Fellows did not major in college or graduate school in the subjects they currently teach.

Chart 3
Number of Fellows with a Degree in a Subject They Taught in 2008-2009

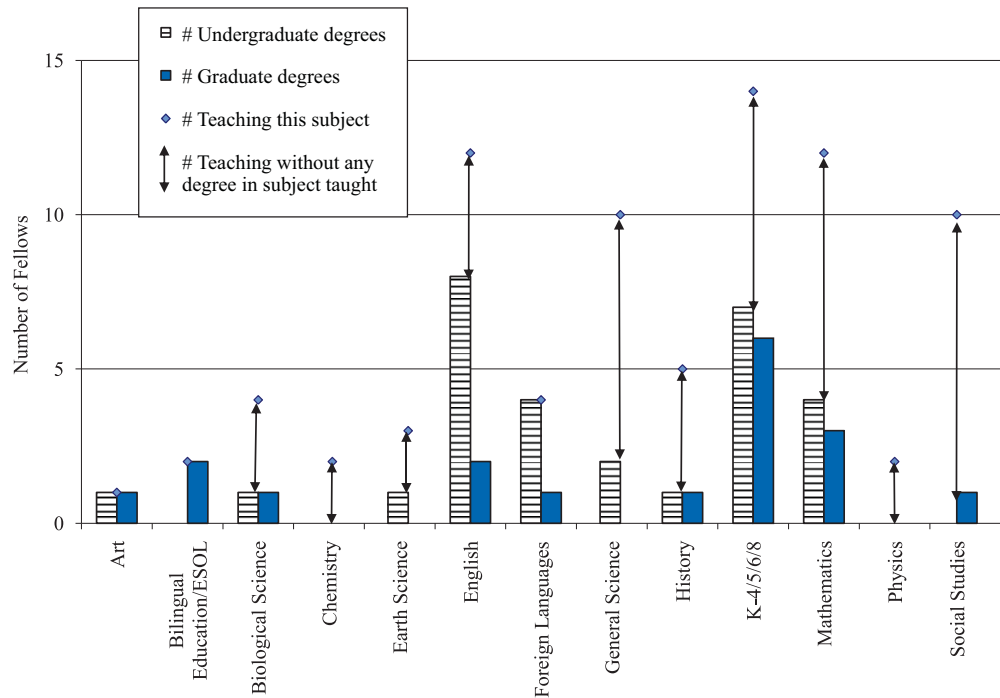
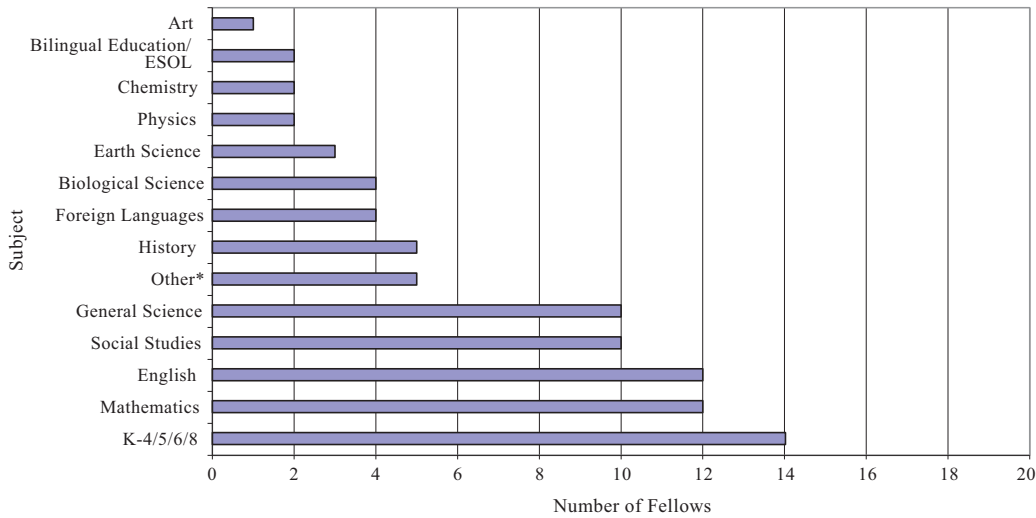


Chart 4 shows the subjects Fellows taught in the 2008-2009 year of their Institute participation. Overall, half of Fellows in the humanities and three quarters (76 percent) of Fellows in the sciences and mathematics had not majored either in college or in graduate school in one or more of the subjects they taught in that year.

The most important incentives were the opportunities to exercise intellectual independence and to increase their mastery of the subjects they teach.

Understandably, then, when the 2009 Fellows were asked about the incentives that attracted them to participate in the Institute, they responded (as Chart 5 shows, reading left to right from the most to the least important) that the most important incentives were the opportunities to exercise intellectual independence (94 percent), to increase their mastery of the subjects they teach (90 percent), to develop materials to motivate their students (88 percent), to

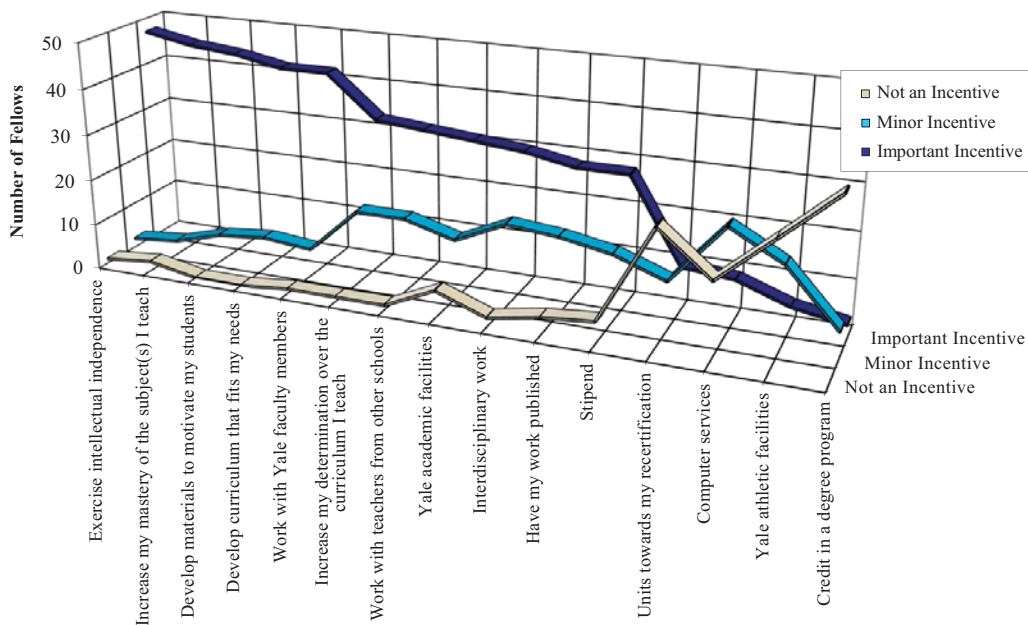
Chart 4
Subject Fellows Taught in 2008-2009



* Technology, Magnet Resource Coach, Service Learning

develop curricula to fit their needs (86 percent), and to work with university faculty members (86 percent). Incentives one might imagine to be important for teachers with access to Yale University – opportunity for credit in a degree program and access to Yale facilities – were much less important for Fellows in the Teachers Institute.

Chart 5
Incentives for 2009 Fellows to Participate



As past Institute studies have shown, Fellows are in most respects representative of all New Haven teachers. So, for example, this year’s Fellows closely resemble the gender and ethnicity of all New Haven teachers. (See Table 1.) Fourteen percent of the Fellows were African American, 78 percent were non-Hispanic white, 6 percent were Hispanic,

Fellows are in most respects representative of all New Haven teachers.

and one was of another background. The proportion of Fellows of non-Hispanic white backgrounds reflects the decreased diversity in the school district’s teaching force. From 1995 to 2009 the proportion of non-Hispanic white teachers in the New Haven Public Schools grew from 67 to 76 percent, while the proportion of black and Hispanic teachers declined from 25 to 16 percent, and from 8 to 7 percent, respectively.

Table 1
Ethnicity and Gender of Participants

| | White non-Hispanic | | | Black non-Hispanic | | | Hispanic | | | Other | | |
|--|--------------------|------|--------|--------------------|------|--------|----------|------|--------|-------|------|--------|
| | All | Male | Female | All | Male | Female | All | Male | Female | All | Male | Female |
| Institute Fellows, 1978-2009 | 71% | 21% | 50% | 23% | 5% | 18% | 4% | 1% | 4% | 1% | 0% | 1% |
| Institute Fellows, 2009 | 78% | 20% | 58% | 14% | 6% | 8% | 6% | 0% | 6% | 2% | 2% | 0% |
| New Haven Public School Teachers, 2009 | 76% | 19% | 57% | 16% | 4% | 12% | 7% | 2% | 5% | 1% | 0% | 1% |
| New Haven Public School Students, 2009 | 13% | 7% | 6% | 47% | 23% | 24% | 37% | 19% | 18% | 3% | 2% | 1% |
| Institute Coordinators, 2009 | 80% | 20% | 60% | 20% | 20% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Representatives and Contacts, 2008-2009 | 83% | 20% | 63% | 15% | 5% | 10% | 2% | 0% | 2% | 0% | 0% | 0% |
| Institute Seminar Leaders, 1978-2009 | 86% | 70% | 17% | 8% | 6% | 2% | 5% | 3% | 2% | 1% | 0% | 1% |
| Institute Seminar Leaders, 2009 | 80% | 60% | 20% | 20% | 20% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Yale Faculty, 2009 (includes tenured and term ladder faculty) | 79% | 54% | 25% | 4% | 2% | 2% | 3% | 2% | 1% | 14% | 9% | 5% |

Totals may not add to 100% due to rounding.
Fellows are teachers who completed the Institute program.

Activities for Fellows

At the first organizational meeting of each seminar, held on March 3, the seminar leader distributed an annotated bibliography on the seminar subject and proposed the syllabus of readings the seminar would consider. The Fellows described the individual curriculum units they planned to develop. This afforded the members of each seminar an overview of the work they were undertaking together and the projects they would pursue individually. The bibliographies both introduced the seminar subject and guided Fellows as they began research on their curriculum units. Nearly all Fellows (90 percent) believed the bibliographies their leaders provided were sufficiently annotated. Fellows remarked on the value of their seminars’ readings. One praised “a very structured and complete syllabus... . [R]eading could have not been more appropriate.” Another said “literature ... was chosen carefully to fit everyone’s needs.” Another termed readings “ambitious, but invigorating; the seminar leader was excellent at pulling a lot of information together.” One said, “Because I teach across several subjects and need to know what curriculum materials many teachers are following, this broad spectrum of ideas and readings was wonderful.”

Annotated bibliographies both introduced the seminar subject and guided Fellows as they began research.

Fellows appreciated seminar leaders' making readings as useful as possible. One leader "maintained an ongoing dialogue about the syllabus... making adjustments where there was consensus to make changes." A Fellow in another seminar said, "Our leader took suggestions from the group on what we wanted to learn about or what direction he should focus."

A seminar leader spoke about the way he composed the reading lists:

The early session involved the discussion of assigned readings, some from a best-selling book and others from scientific review papers. Later in the series, topics were chosen by Fellows and I presented and led discussion. Fellows also presented parts of their units. Discussion and suggestions for improvement followed.

Before the second seminar meeting all Fellows met individually with their seminar leader to discuss their projects. The Institute requires that Fellows schedule at least two such conferences as part of the unit writing process; many Fellows, however, meet more frequently with their seminar leader. At the end of the program, almost all Fellows (96 percent) said they had ample opportunity to discuss their choice of readings with the seminar leader.

Both Fellows and seminar leaders recognized the value of these opportunities to work closely together. According to one Fellow, "My meetings with [the seminar leader] were always fruitful and his suggestions about the revision of my unit its various stages helped improve its quality." Another cited "the one-to-one sessions with the seminar leader" as a particular strength of the program. According to another, the seminar leader

"Our leader took suggestions from the group on what we wanted to learn about or what direction he should focus."
—Institute Fellow



Peter Casolino

The seminar on "The Modern World in Literature and the Arts." (Left to right: Fellows Crecia C. Swaim and Julia M. Biagiarelli.)

*The seminar leader
“was able to suggest
other reading
selections more
specific to what I
wanted to learn.”
—Institute Fellow*

“was able to suggest other reading selections more specific to what I wanted to learn more about and write about. This was great because it gave me more time and resources to prepare my unit.”

One seminar leader said, “I met with everyone before the prospectus and before the second draft. The one-on-one meetings were very valuable and it is important that the Institute continue to remind seminar leaders to set them up.” Three other seminar leaders described the purposes of these meetings:

I met with each Fellow individually at least twice. I organized these meetings and had Fellows sign up for particular slots... . These meetings were generally very productive and hands-on. We discussed the units in progress, and I advised the Fellows on research sources and directions for further consideration. In the second meeting, I gave more detailed feedback on Fellows’ writing. Occasionally, I met informally with Fellows before or after the seminar at their instigation.

I met with each of the Fellows after all of the major deadlines: prospectus, first, second, and final draft. The meetings were at my request. At the first meeting, I gave individualized reading lists to the Fellows. At subsequent meetings we discussed the progress of the drafts. After the second draft, I met multiple times with several of the Fellows. About half the meeting time was devoted to grammatical issues and the proper use of source materials and the remainder of the time was spent on content issues.

*“These individual
conferences were
highly useful because
the Fellows could
speak openly to me.”
—Seminar Leader*

These individual conferences were highly useful because the Fellows could speak openly to me, without any fear of appearing naïve or uncertain about the units they were preparing. In some cases, I... [met] individually with a Fellow if he/she was having problems with writing or researching a unit. Also, I sometimes requested such meetings if... a Fellow was not making sufficient progress.

The availability and responsiveness of seminar leaders, including in these individual meetings, were features many Fellows praised. One said the seminar leader “was always available for individual meetings when necessary.” Another said the leader was “very conscientious in every aspect; he would always respond to e-mail in a timely manner, he gave us exhaustive feedback soon after the drafts submissions, etc.”

During the period that preceded the regular weekly meetings that began in May, Fellows continued their reading, both preparing for the upcoming seminar discussions and working toward a brief prospectus of what their final units would contain. Regarding these two months at the beginning of the program, one Fellow in a typical comment appreciated “having some time to do preliminary reading and planning well in advance of having to submit my prospectus.”

At the second seminar meeting, on April 7, Fellows submitted the prospectus, presented their revised unit topics, and began to discuss common readings. The regular weekly seminar meetings began on May 5; thereafter Fellows continued to develop their units in stages, with a first draft submitted May 26. The weekly meetings of the seminars continued through July 14, with Fellows submitting the second draft of their units June 30 and completed units by July 31.

Fellows submit the prospectus, together with a revised unit topic and a list of readings to learn about that topic, at the time of the second seminar meeting. This allows them six weeks to write a first draft. The due date for the second draft is meant to be late enough to allow Fellows ample time to address the comments they received on the first draft from other Fellows and from the seminar leader, but not so late as to preclude opportunities for the seminar leader's final review and the Fellows' final revision before the completed unit. The great majority of Fellows have been satisfied with this schedule and its well-spaced series of deadlines during the spring and summer – a schedule that is designed to respond to the school Representatives' and other Fellows' suggestions each year. In 2009 a majority (73 percent) of the Fellows (compared with 88 percent in 2008, and 91 percent in 2007) thought the unit writing deadlines occurred at the right time in relation to the school calendar. Although this is a decline from the response in recent years, in 2009 only two Fellows (4 percent) disapproved strongly of the schedule. The decline in approval reflected some dissatisfaction with the deadline for the second draft being too close to the end of the school year. Based on Fellows' comments, that deadline will be scheduled later in 2010.

Overall, most Fellows, as one wrote, “appreciated the schedule. I believe we met an ideal number of times.” A returning Fellow said, “I have always felt that the Institute timeline for getting the unit completed was a very helpful one and one that I follow religiously each year of my participation.” In contrast to a few who thought the program should conclude either earlier in the spring or later in the summer than it does, another returning Fellow praised the current schedule and added, “One ... strength the Institute demonstrates constantly is communication. There is never a surprise with dates or required papers, forms, or other needs, consequently making my experience very positive as I like to plan ahead.”

Fellows spoke of the benefits of an extended period for research, writing, and reflection. One said, “Planning is such a large part of effective teaching, and to have a unit so thoroughly designed can only have a positive effect.” Others wrote:

I was able to devote a lot of time to researching my chosen topic, getting many valuable suggestions from [the seminar leader] as well as from my seminar colleagues. I have developed an impressive bibliography of resources... . When you design your

“I have always felt that the Institute timeline for getting the unit completed was ... very helpful.”
—*Institute Fellow*

own unit and you know it well, you teach with a certain flair that may not be there with curriculum already laid out for you.

Preparation of a unit of this kind with the intensive background information researched is certainly the way... to properly design and instruct in the classroom... Information from a well-informed source lays the ground work for a unit that is balanced and well-developed.

“The time preparing, presenting, and consulting with other teachers gave me a chance to figure out what lessons will work best to help my students learn.”

—Institute Fellow

Creating the curriculum gave me a chance to get very organized and prepare the best sequence for my lessons... The time preparing, presenting, and consulting with other teachers gave me a chance to figure out what lessons will work best to help my students learn... I have a much better understanding of the material... I feel very comfortable teaching the science background and am looking forward to having a lot of fun with the activities.

Teaching a unit that I am so intimately involved with will strengthen my teaching in several ways. I will have a greater perspective on the topic, to better scaffold information for my students. I will have a depth of knowledge to ask and answer deeper questions. I will be an effective resource ... having researched it recently.

The Institute attaches great importance to the process through which Fellows develop their curriculum units.

The Institute attaches great importance to the process through which Fellows develop their curriculum units. Many Fellows commented on the value of following this process that includes not only guidance from the seminar leader but also advice from other Fellows. According to one, “The process has forced me to think about my students’ needs and reflect on strategies to maximize their potential. The research ... afforded me the opportunity to obtain valuable information.” This “will prove to be a very useful and effective unit for my students and hopefully others.” Another “found the guidelines to be very useful and referred to them as I worked on my unit. They were very straightforward and easy to understand.” Another said, “The Institute was very well organized and well thought out. The deadlines were very well spaced and planned.” Another Fellow wrote, “The Institute is well-structured within the school year and sensitively takes into account teacher schedules. The writing process is well scaffolded with tremendous support... The program is set up to facilitate ... success.”

Discussion in seminar of Fellows’ work-in-progress contributes both to unit development and to the seminar experience. As one Fellow observed, “We were able to give each other helpful feedback based on the structure [the seminar leader] provided for our conversations.” Another said a seminar leader “gave each Fellow the opportunity to discuss what they had learned about their topic of choice and provide the group with lesson suggestions or examples of what you can do in the classroom.” Another “especially liked learning from the other Fellows in my group as they practiced their unit lesson plans on us.”

Others reflected:

Working with fellow New Haven teachers helped to provide me with insight into how to improve my unit. Several times throughout the seminar we exchanged our unit with other teachers, who provided feedback on ways to improve our units. I found this very helpful because I was able to discover what worked well, what did not and what still needed further clarification.

Discussions on the progress of each individual's unit were quite enlightening. Some people used these discussions to gain clarity ... while others used the opportunity to inform us of their progress. Of interest was the support that was given and taken by all involved.

It was ... a pleasure to work with other New Haven teachers outside of my own school. We taught different aspects of our unit and were able to give and receive advice and suggestions on how to make the lesson even better. It was great to be able to bounce ideas off each other and use or adapt what other teachers do in their classes.

At the conclusion of the seminars, most Fellows indicated that the program schedule (98 percent) and the guidelines for writing a unit (88 percent) had been useful to them to a great or moderate extent. This year three quarters of the Fellows said they tried out the subject matter (74 percent) and the strategies (80 percent) of their units in their classroom. Of those who did, nearly all (91 percent) said students' responses influenced what they included in the final units. One Fellow in a science seminar said, "I have done a few of the experiments in my classroom and the students enjoyed them and were anxious for more." According to another,

I feel more motivated to share the information that I learned with my students. I shared with them my experiences in creating and developing the unit just for them. In turn, they found it interesting and exciting that their teacher was still learning like them.

During the first two months of the program, which serve as a reading period, all Fellows also met together on Tuesday afternoons for a series of talks by current or prospective seminar leaders. These talks are designed either to acquaint Fellows with the work of seminars other than their own, or with subjects of possible future seminars. A current science seminar leader, William B. Stewart, gave one of the talks on "Dolphins, Disease, Drugs and Diagnosis: How We Study the Brain." A prospective seminar leader, William A. Mitch, Associate Professor of Chemical Engineering and Environmental Engineering, spoke on "Practical Applications of Science in the Classroom: Design of Water Treatment Systems." The other three talks were given by prospective seminar leaders in the humanities and social sciences: Khalilah L. Brown-Dean, Peter Strauss Family Assistant Professor of Political Science and African American Studies, on "Once Convicted, Forever Doomed: The

"We taught different aspects of our unit and were able to give and receive advice and suggestions on how to make the lesson even better."

—Institute Fellow

Politics of Punishment in the U.S.”; Matthew F. Jacobson, Professor of History, of African American Studies and of American Studies, on “Race and U.S. Citizenship, 1790-2009”; and Jennifer L. Klein, Professor of History, on “The Struggle for Economic Security: The Politics of Health Care and Social Security in 20th-Century America.”

The talks were particularly popular this year. Fellows called them “engrossing” and “enlightening.” One Fellow “enjoyed the talks by the different professors... . I found these to be highly informative and educational... . I consider myself a lifelong learner and welcomed the opportunity for stimulating dialogue and thinking.” Another, who regarded talks as “very interesting,” said “some provoked good conversation among my colleagues in attendance as well as friends outside of the Institute.” Another said, “The talks this year were... very interesting... . Each speaker was able to bring a large variety of experience to a comfortable level for all teachers.”

Most Fellows saw in the talks the purposes for which they were organized.

Most Fellows saw in the talks the purposes for which they were organized. Virtually all (96 percent) Fellows said that to a great or moderate extent the talks provided intellectual stimulation, while most (88 percent) said they provided a sense of collegiality and common purpose among Fellows. Nearly as many (78 percent) said, too, that the talks were successful to a great or moderate extent in providing an overview of Fellows’ work in the seminars. Almost all (96 percent) said the Institute scheduled the right number of talks. Many Fellows reported that the talks prompted them, to a great or moderate extent, to read about the talk topics (68 percent), discuss the topics with their students (62 percent), and discuss the talks with other teachers (94 percent). These numbers were comparable to, or slightly above, those of prior years.

As in other years, the Institute scheduled an early workshop on curriculum unit writing. In their admissions folder, all Fellows had received Institute Guidelines and Mechanical Specifications for preparing curriculum units, which outline the Institute writing process and steps for Fellows’ formulating, reformulating, and expanding their individual units. On March 17, the teachers serving as seminar Coordinators led a panel discussion on curriculum unit development.

Coordinators spoke from their own experiences as Institute Fellows in researching and writing curriculum units.

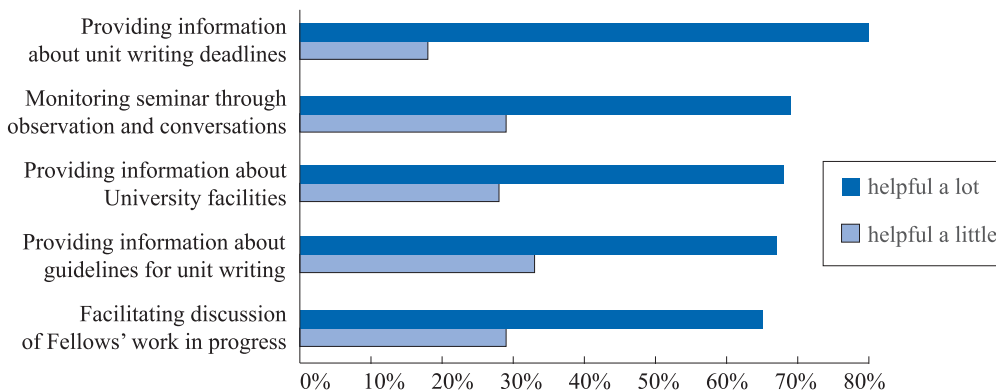
The Coordinators spoke from their own experiences as Institute Fellows in researching and writing curriculum units. They selected for emphasis areas they thought especially important for all Fellows to understand: “Narrowing Your Topic and Considering Your Audience”; “Following the Institute Process for Unit Development”; “Aligning Your Unit with School Plans and District Goals”; “Fellows’ Membership in the University Community and Resources for Research and Writing”; and “Collegiality and Professional Development in the Teachers Institute.” After questions, the Fellows broke into seminar groups, where each Coordinator led a discussion of purposes and practices in writing Institute curriculum units. This offered an opportunity for the first-time

Fellows to learn about the guidelines and other aspects of curriculum unit writing from experienced Fellows. It encouraged veteran Fellows to share their experience and allowed all to discuss how the completed volume of units might display a range of teaching strategies and contain a standard form of annotation. By leading these discussions, the Coordinators also identified themselves as being knowledgeable about the process of writing curriculum units, so that other Fellows might seek their advice.

At weekly meetings with the Director and Associate Director, held the day after seminar meetings, Coordinators discussed the progress of each seminar and gained an overview of the program. Both seminar leaders and Fellows acknowledged in their evaluations the essential role of the Coordinators. Almost every Fellow agreed (62 percent “strongly”) that the Coordinators provided teacher leadership without diminishing the collegial relationship within the seminar. Fellows found the Coordinators to be helpful either a lot (80 percent) or a little (18 percent) in providing information about unit writing deadlines; helpful either a lot (67 percent) or a little (33 percent) in providing information about guidelines for unit writing; helpful either a lot (69 percent) or a little (29 percent) in monitoring the process of the seminar through observation and conversations with seminar members; helpful either a lot (68 percent) or a little (28 percent) in providing information about the use of University facilities; and helpful either a lot (65 percent) or a little (29 percent) in facilitating discussion of Fellows’ work in progress. Few Fellows found the Coordinators unhelpful in any respect. (See Chart 9.)

Both seminar leaders and Fellows acknowledged the essential role of the Coordinators.

Chart 9
Institute Coordinators’ Helpfulness to the 2009 Fellows



Overall Coordinators received praise not only from Fellows, but also from seminar leaders, one of whom said the Coordinator was “especially ... useful in helping me along.” One Fellow recognized “a wonderful Coordinator who was always ready to answer any questions and smooth our path.” In another seminar, a Fellow said the Coordinator “kept us informed of all deadlines and Institute news, and she regularly ‘went the extra mile’ with her offer to provide us with additional help if anyone needed it.” A Fellow in another

Annual Report: The Program in New Haven

seminar believed the Coordinator “did a wonderful job of setting a congenial and positive relationship between the seminar members and our leader.” Another Coordinator was called “supportive and understanding.” And the fifth Coordinator “offered help and was constant” in reminding colleagues about Institute “due dates, form, and style.”

To maintain current information on the program and to address any problems that arose, the Institute Director and Associate Director met monthly with the seminar leaders as a group. This also gave the seminar leaders an opportunity to talk with one another about their approaches and experiences.

Rewards for Fellows

The seminars are the core collaborative experience of the Institute. In 2009, as in past years, most Fellows’ responses to the seminar experience were strongly positive, even ebullient. One returning Fellow “learned a lot about researching, writing and teaching” and “found the work challenging and engaging. The seminar leader was stellar and the Fellows were wonderful.” Another said, “My seminar this year was great. [The seminar leader] was wonderful and we also had a knowledgeable group of teacher participants.” Another who “enjoyed my seminar” said “It was a very interesting topic and [the seminar leader] is ... great.” Another called it “an extremely rewarding experience. Our seminar leader ... proved to be exceptional in his knowledge as well as his ability to relate with Fellows, assess each one’s needs, and guide us toward the writing of our units.” In short, “every session was enjoyable and intellectually stimulating.”

A first-time Fellow similarly “looked forward to class each week with a level of excitement that reminded me of my childhood anticipation of going to my favorite amusement park”:

This [seminar] rekindled in me the feelings I believe most of my middle school students have. First, dread upon hearing what the major reading assignment would be... . Then enjoyment and I believe a bit of healthy pride as I realized that I would now comprehend the book... . While at first I was worried about having enough time to fit in the writing, I quickly shifted to wanting even more writing assignments as I realized that they were carefully crafted to open my eyes to important aspects of the readings and to help focus my thinking. Finally, my initial dread regarding receiving/giving feedback from/to my peers after reading each other’s written responses quickly dissipated as I learned to trust [the seminar leader’s] ability to set the tone for respectful yet usefully critical discussion.

*“I learned to trust
[the seminar
leader’s] ability to
set the tone for
respectful yet usefully
critical discussion.”*
—Institute Fellow

According to a seminar leader,

Discussions were not all that different from my seminar courses with grad students at Yale. The one discernible difference is that Yale students tend to avoid revealing to each other that they lack knowledge of a subject area. It is perceived as a sign of weakness. In contrast, the Fellows openly acknowledged when they did not understand ... and freely sought each other's advice/opinions about the material and unit preparation.

One Fellow believed "it was particularly helpful to talk about how other teachers conceptualized and explained the writing process." Another Fellow, who had "an excellent experience," said "it helped me to grow professionally" and "expand my knowledge." Another "found the seminar a glorious opportunity not only to re-read a few selections but also to read many new selections... . Another high point: the trips our seminar made to the Yale Art Gallery." Other Fellows said:

The seminar ... opened up new windows of appreciation and comprehension of literature generally and modern literature especially for me. I will never gaze upon a piece of art again without considering the artist's purposes. I gained new respect for my colleagues... . Their various comments and insights were invaluable.

I enjoyed learning the subject matter and doing the experiments... . My seminar leader was very knowledgeable, entertaining, understanding and very considerate. I learned a lot, shared with colleagues... . This was a great seminar.

The experience has been everything that I expected it to be and more. ... I am still using the information that I learned from the meetings with various staff members during the year. I found the information ... to be very profound.

My experience ... was incredibly valuable... . It offered modes of enrichment professionally that I was having trouble fulfilling as a classroom teacher... . I am still very interested in the discipline of science and teaching, and was looking for a way to learn and hone my skills as a teacher. The Institute provided me with an avenue of higher learning coupled with professional development.

The seminar has been especially challenging because of the high expectations the seminar leader had for the Fellows. [She] guided all seminar meetings very skillfully, providing us with ... content material, precise guidelines on the unit writing, and strategies that can be employed in teaching the seminar content to our students... . The opportunity to collaborate with other teachers of New Haven Public Schools during seminar meetings is invaluable because it is

"It offered modes of enrichment professionally that I was having trouble fulfilling as a classroom teacher... ."
—Institute Fellow



Michael Mansland

The seminar on “The Modern World in Literature and the Art,” visiting the University Art Gallery. (Left to right: Jessica Sack of the Art Gallery; and Fellows Julia M. Biagiarelli, Sara E. Thomas, and Shannon Ortiz.)

the way to learn about teaching problems in all grades and subjects. The feedback of Fellow teachers was also very helpful ... on the curriculum unit.

The Yale faculty members who led seminars commented also on the benefits they derived. One who was able to “expand/refresh my knowledge” will “use this information in my teaching this coming year” and said “the challenge of teaching material on multiple levels will help with my Yale students.” Other seminar leaders commented:

“ I have benefited tremendously... . [T]he Fellows... contributed a great deal to my understanding of what I do as a teacher.”
—Seminar Leader

I have benefited tremendously from leading this seminar. I will incorporate some of the research that several Fellows did into the readings for my freshman ... seminar in the fall... . Working with the Fellows gave me a chance to think hard about the teaching of [the subject] and their ideas and questions and responses contributed a great deal to my understanding of what I do as a teacher.

The main benefits involved learning about the New Haven Public Schools and meeting the dedicated teachers who became Institute Fellows. This also allowed me to see the works I often teach to Yale undergraduates in a new light, and to guess at how they might be relevant to students at other levels. Since I write a fair amount of pedagogical material, this new knowledge will help me in such endeavors. Finally, I enjoyed getting to know colleagues from other departments.

The Institute challenged me in many ways. Prior to the Institute, I had never taught a seminar before. My instruction had been limited to lectures and laboratories. I hope that I can use this experience to make my undergraduate and graduate courses more interactive... . Applying my knowledge to new areas has given me new perspective that will help to inform my research.

I benefited in terms of networking with local teachers, and as a New Haven resident I felt that experience was invaluable. I believe other faculty members would similarly benefit, even if they lived outside of New Haven. Teachers were my motivation for pursuing [my] career, and I would hope that I instilled in my Fellows the genuine excitement I have for the work I do. My hope is that they will pass this excitement along to their students and keep the chain going in this way.

Fellows welcomed the opportunity to cross the artificial boundaries often separating schools, disciplines, and grade levels. Several cited characteristics of what is known in education literature as a “professional learning community.” One said, “Ours was a very outgoing, fun group of teachers from different backgrounds. Both our seminar leader and Coordinator were always willing to help and go above and beyond.” The result: “Everyone came away ... learning a lot while enjoying” the seminar. Another, whose seminar had a “shared vigor for learning,” continued:

Being part of a study group of teachers really opened up opportunity to apply what we were learning to the classroom. Whenever ... teachers get together they always end up talking shop, but when

“Prior to the Institute, I had never taught a seminar before. I hope that I can use this experience to make my courses more interactive... .”

—Seminar Leader

“Being part of a study group of teachers really opened up opportunity to apply what we were learning to the classroom. The weekly meetings turned into something I really looked forward to.”

—Institute Fellow



The seminar on “Science and Engineering in the Kitchen.” (Left to right: Fellows Melissa Talarczyk and Huwerl Thornton, Jr.; and seminar leader Eric R. Dufresne.)

you give them a common topic, it becomes more about application than about exchanging war stories. The weekly meetings turned into something I really looked forward to.

Other Fellows said:

It was also fun to collaborate with teachers of all subject areas and grade levels. As a high school teacher, to see the strength and intelligence of some of our elementary teachers was awesome.

My experience with the seminar was truly wonderful. I had an opportunity to meet and work with other teachers from all over the district. This allowed me to network and learn from others in all levels of school. Being in elementary, I was able to get a good insight into what middle school and high school are like.

Fellows described the benefits they discovered working together. One said, “The Institute inspires Fellows to do better work, write better curriculum units, and deliver better classes.” According to another, “My experience in the Institute has been very rewarding. It has allowed me to meet other colleagues from different schools, who were able to provide teaching strategies and feedback.” Others said:

The relaxed and open atmosphere created by [the seminar leader] fostered a great deal of discussion and open questioning about the topic. The group was very collegial; the conversations were vigorous and wide ranging. Science educators and other colleagues added to our knowledge base by sharing their own expertise.

My teaching is improving every year due to my participation in the YNHTI. Some of the most creative lesson plans I have developed lately have been inspired by interaction with other teachers in the Institute or directly from seminar meetings.

My participation in the Institute will positively impact my teaching in that it gives me energy as an educator. It re-enlivens my intellectual stimulation and curiosity, which in turns inspires me to do the same for my students.

I have now an interdisciplinary unit that combines science and math and would fit into the New Haven curriculum. Meeting new people within the district who had other positive ways of handling the students was very helpful to me and will be good for my students.

The basic strength of the Institute is that teachers get a chance to make a usable unit and work in a collegial atmosphere with other teachers and Yale faculty... . Often we can pick up new ways to

“The Institute inspires Fellows to do better work, write better curriculum units, and deliver better classes.”

—Institute Fellow

“The basic strength of the Institute is that teachers get a chance to make a usable unit and work in a collegial atmosphere with other teachers and Yale faculty.”

—Institute Fellow

solve old problems ... understand some of the problems teachers at other levels face and ... work together to strengthen our students' academic and social preparedness.

This collegiality can support the induction of new teachers. One wrote,

I am a first-year participant... I have had an excellent experience, with my own school Representative, my seminar leader, colleagues and Coordinator. It has made me a better researcher, a more informed teacher, given me many bits of food for thought and introduced me to some wonderful colleagues in the school system.

The Institute's participants and staff have been asked over the years whether the co-professionalism among Yale faculty members and New Haven school teachers, for which the program is widely known, is authentic. The mutual respect between Fellows and seminar leaders attests to the collegiality on which the Institute is founded. One seminar leader spoke of "the wonderful inventiveness and energy of some of the Fellows." Another, who described "all of the Fellows" as "eager to learn," said several of the curriculum units from the seminar "could be read with profit not only by other high school or elementary school teachers but also by scholars in the relevant fields." Another leader was "struck by the diversity and skills of the Fellows" and "impressed by their commitment." According to another seminar leader, "The Fellows were highly motivated to learn about and discuss the subject matter," and some "greatly impressed me by reading extensively on their subjects."

The mutual respect between Fellows and seminar leaders attests to the collegiality on which the Institute is founded.

Fellows, in turn, expressed admiration for their Yale colleagues. One Fellow said a seminar leader was "phenomenal as a teacher, so I learned about teaching not only through" assignments described as "creative and clever," but "also by watching her skillfully lead discussions and ask compelling questions at just the right time... Extensive, timely, and clear feedback on assignments and unit drafts was an invaluable aspect of the seminar." Another Fellow said a seminar leader "was willing to work with me in order to help me complete my curriculum," being "very helpful throughout the process" and working "above and beyond." Another said, "It was a joy working with [the seminar leader] who seemed completely at home in [this] role, working with school teachers." According to another, "The seminar leader ... led such an amazing group. His level of expertise and general ability to learn about topics outside his domain is incredible." Others commented:

[My seminar leader] was very engaging, showed a wonderful sense of humor and always came to class well organized. The discussions that he led were rich and interesting and he was always receptive to other points of view.

[The seminar leader] really set the tone for our experience... His enthusiasm got everyone involved... [He] used a combination of



Peter Casolino

The seminar on “Evolutionary Medicine.” (Seminar leader Paul E. Turner and Fellow Paul M. Jones.)

lecture, class experimentation, and discussion to keep the seminar live and informative.

Our seminar leader was wonderful and presented the information in a clear and concise manner. [He] was able to present the information ... in a way that made you think and reexamine the [subject].

The seminar leader asked pertinent questions and provided feedback... . [He] provided a sense of collegiality and made each member feel important and comfortable as they shared or contributed to the discussion. His lecture presentations were well planned [with] units under consideration. Labs were well organized and tailored to the needs of the novices and those who were experienced.

I have enjoyed the time spent with [the seminar leader]. I find him to be a very sincere and thoughtful human being. He is a devout intellectual and he has made sure [the material] ... was not only meaningful but presented in a manner that we could all understand... . His presence provided me with the security and confidence needed in order to complete the program... .

“The seminar leader... provided a sense of collegiality and made each member feel comfortable.”
—Institute Fellow

Relating Seminar Topics to Curriculum Units

Each Institute seminar must balance the complementary and inseparable but sometimes competing demands for studying the seminar topic and developing applications of that knowledge for school classrooms. The Fellows, from elementary, middle, and high schools, are obligated to develop curriculum units that have some demonstrable relation to the seminar topic. Yet they

are free to devise curricula that enter territory not covered in detail by the seminar. The curriculum units, therefore, have a diversity of subject and method that one would not expect in a regular university course. As a result, discussions in the seminar, while doing justice to the common reading, can also range widely over substantive and pedagogical issues relating to the curriculum units. Each seminar approaches these demands differently as seminar leaders strive for balance.

Almost all Fellows (98 percent, compared with 82 percent in 2008) said there had been an appropriate balance between general study of the seminar subject and Fellows' units in progress. Many Fellows reported, as one did, that "The readings were well-chosen and balanced with ample discussion of the progress of our curriculum units." Others said:

There was a good balance of work in progress and content. We worked in pairs and groups of three, constantly checking in with each other throughout the writing process and providing feedback.

The professor was great and facilitated the discussion and provided much information. In addition, we had plenty of time to talk with other members about our units and their progress. I looked forward to the seminar every week.

Seminar leaders also recognized "a good balance between the subject of the seminar and the curriculum units... . The Fellows seemed to see the relation between the readings" and "the problems that they were trying to solve in their teaching." Another leader noted, "We spent more time on the units as the seminar progressed." Another said, "I think the general reading and topics were engaging enough to hold the attention of the Fellows. The sessions related to specific units were also well-received."

The Institute encourages Fellows to incorporate in their curriculum units both subject matter and skills that are called for by the local curriculum framework, including an emphasis upon literacy, and assessed by the statewide Connecticut Mastery (CMT) and Academic Performance (CAPT) Tests, administered in grades three through eight, and ten, respectively. Some Fellows remarked on ways Institute-developed curriculum units help implement aspects of the district curriculum framework and create engaging material for students. One was "very excited to teach this unit to my new class of students. It will be a way to add a little needed spice to the language arts curriculum." Another wrote, "This unit will allow me to teach the district curriculum in a way that is fun and educational at the same time." According to another, "The knowledge I have gained will help me embellish the curriculum that already exists in New Haven." Another said, "The unit will fit rather nicely into the upper-level curriculum" and "meets national, state, and district standards." Another observed, "It is my hope that [students] retain the stan-

Discussions in the seminar, while doing justice to the common reading, can also range widely over substantive and pedagogical issues relating to the curriculum units.

Institute-developed curriculum units help implement aspects of the district curriculum framework and create engaging material for students.

dards being taught which can eventually help them in the CMT for ... math, literacy, and science.” Another added, “My unit ... incorporates practice of CAPT and core-curriculum skills, as well as technology.” Other Fellows said:

Lessons in the curriculum unit that I wrote this year were specifically designed to address CMT strands pertaining to students’ written response to text. The narrative portion was written to include information that would connect Language Arts and Social Studies curricula for middle school students so that students would be able to practice these skill strands in Social Studies classes as well as in Language Arts classes. I believe these factors will have a beneficial effect on my students’ ability to perform on the CMT next year.

“I wrote my unit with my class curriculum in mind.”

—Institute Fellow

I wrote my unit with my class curriculum in mind. I plan to utilize my lessons during the first marking period while the students are learning about matter, physical and chemical properties and reactions... . My unit was well as most of the units in my seminar will be applicable in my classes and to the New Haven science curriculum for both the 7th and 8th grades.

The district mathematics department is incorporating significant tasks (at least two) into each unit of the district curriculum. The purpose is to encourage students as problem solvers. As a lead math teacher in the district I am part of a team that is updating the math curriculum. Many activities developed for my unit are essentially significant tasks and may be incorporated.

Students should be responsible for learning and teachers should facilitate that learning. When meeting the deadlines for pacing, the unit combines two separate units to allow more room for reviewing other concepts before the CAPT.

The Institute has provided me with a perfect chance to prepare a unit addressing the needs of bilingual students I teach... . I will teach this unit numerous times, because, first it is devoted to important content knowledge – migration/immigration – second, it addresses advance of oral language and reading skills, and third, the unit is easily adopted to any other content material owing to developed strategies targeted at the skill of writing.

After the units are completed in July, they are compiled every year in a volume for each seminar and are published online. The Institute prepares a *Guide* to the new units, based on authors’ synopses and recommendations of the grade levels and school courses to which their units apply. In 2009 the Institute again updated the *Index* of all 1744 units contained in the 192 volumes published since the program’s inception in 1978. The *Index* and *Guide* are also published online.

Results for the Participants

Fellows in 2009, as in prior years, often spoke of the results of their Institute participation in terms of intellectual growth and renewal. Just as the opportunity to increase mastery of the subject one teaches was an important incentive for most Fellows (90 percent) at the outset, upon completion of the program every respondent agreed (57 percent “strongly”) that he or she had gained knowledge of their subject and confidence to teach it by participating in a seminar. Every Fellow agreed, too, with the statement that the seminar helped with intellectual and professional growth; most (69 percent) strongly agreed. One participant in a science seminar said, “The most important aspect to the entire experience to me is the mental stimulation... I found myself ... hungry for more knowledge.” A Fellow in a humanities seminar said the Institute “provides teachers the opportunity for continued intellectual development.” The rigor of the program also was a frequent theme in Fellows’ comments:

These assignments made us think and write in ways that forced our thoughts to be exact. We considered how to state our problem, what claims we needed to make, and what evidence we needed to consider.

There was pressure from the beginning to be doing excellent work, and my seminar leader pushed me to provide more research, and better writing to ensure that I produced my best work possible.

Many Fellows described the Institute experience as having increased their professional confidence and morale. One Fellow said, “The overall quality of the program has given me the confidence necessary to continue at the next possible opportunity.” More specifically, according to another, “I gained confidence in my ability to present literature to students.” Another “was able to try some of the lesson activities and strategies while writing the unit. This makes me more confident about the content, the activities and strategies.” Another said, “I feel confident teaching my unit in the upcoming year and believe my students will benefit from the knowledge I obtained.”

Fellows spoke, too, of their access to Yale facilities. From the Institute’s inception, all Fellows have been full members of the University community, listed in the directory of faculty and staff, and granted use of facilities and services similar to that of their Yale faculty colleagues. They receive a University identification card, computer account, and borrowing privileges at the Yale libraries. For most Fellows (88 percent) access to Yale’s academic facilities such as the library was an incentive to participate; 83 percent reported that membership in the Yale community had been greatly or moderately useful to them.

To acquaint Fellows with the facilities available to them the Institute offered special tours of and orientations to the Sterling Memorial and Bass Library, Beinecke Rare Book and Manuscript Library, University Art Gallery,

and Center for British Art. These were led by professional staff of each facility. In several cases, seminar leaders also arranged extra sessions that staff of such facilities conducted for Fellows in their seminars.

In typical comments, Fellows thought it “wonderful to have had access to all the Yale facilities” and “the chance to feel integrated into the Yale community.” Staff from the libraries and art museums were praised, with many Fellows expressing gratitude for, as two others put it, “the opportunity to explore the many research advantages Yale has to offer” and “curators [who] were fantastic.” Other Fellows said:

We visited museums to view art related to evolution and to Darwin, as well as the special collection ... devoted to preserving animal specimens. We performed experiments in the lab.

The Institute allows New Haven teachers the opportunity to associate and use the Yale community... . The high quality of services and resources is very valuable to the teachers of New Haven. This partnership between the university and the public school teachers communicates a belief that lifelong learning is essential. The Yale-New Haven Teachers Institute is a unique professional development experience. It allows for development and discussion of ideas.

Fellows see the results of the Institute as extending beyond their own classrooms, and beyond the teachers who have themselves personally participated in the seminars. Almost all Fellows (75 percent) said that they plan to encourage or assist other teachers in using the unit they prepared. In all, Fellows planned to encourage or assist a total of 134 other teachers. Two said,

Almost all Fellows said that they plan to encourage or assist other teachers in using the unit they prepared.

I have already met individually with several other teachers to introduce them to the approach I used in designing the unit, and every one of them has expressed great interest in learning more. The methods I learned and developed are useful across subject areas and development levels, so it is likely that the curriculum unit will be used ... [in a] variety of grade levels and subject areas.

I plan on working with the Language Arts teacher and the Social Studies teacher (who also was a member of the Institute this year) to make collaborative assignments.

Fellows discussed the more extended influence the Institute has had, and will have, for them and their schools. One said, “The knowledge I learned will be very useful” not only “when teaching this unit, but every time I use poetry in any capacity in my classes.” A Fellow in a science seminar said, “This unit will help students make connections. It will be a valuable asset to me and my colleagues.” According to another, “My curriculum will have considerable impact... . I will be teaching my unit to three seventh-grade classes, a grade I

have not taught for many years.” Further, “Without the prodding of the Institute, I would not have designed this seventh-grade program. It will be helpful to have the Institute as the backbone.” Another wrote of a previous unit, “The administration was impressed and appreciative.” Others said of their new or previous units:

School curricula will be enriched. There will be collaboration among Social Studies, Art, the Librarian and [Technology] but the unit opens opportunities to involve Language Arts and Foreign Language classes as well.

My participation in this year’s seminar and the large number of colleagues of mine who participated in other Institute seminars will undoubtedly positively impact instruction in my school across the curriculum... . I look forward to the challenge of implementing a more integrated school-wide curriculum.

Using my own interdisciplinary curriculum units has served to enhance the grade-level school curriculum... . Aligned with district standards in mind, the unit provides another way to teach the content required.

The curriculum units I have written previously have been a great success in my classes. I have been able to use them more than once and have had other teachers interested in using lessons and strategies from them... . My principal is always interested when I begin teaching a curriculum unit I have written and will observe my classes during that time.

Several Fellows commented on the value of Institute-developed curriculum units to their colleagues and to the school district:

I would like to think that the curriculum planners in the various departments of the New Haven Public Schools are paying attention to the vast resources of the YNHTI and its Index of curriculum units. I sent a copy of my unit to a member of my department and to a language arts coach for their perusal.

The units provide a place where teachers can find a unit that can help to diversify their curriculum. I have directed teachers to the units when they needed to find information on teaching a concept.

After having participated, I was able to encourage other teachers to participate and direct them where to look for a wealth of... units that have become a staple in my planning. This held especially true in planning for National Poetry Month and Black History Month and other thematic units as well as integrating nutrition and hygiene.

“My principal is always interested when I begin teaching a curriculum unit I have written and will observe my classes during that time.”

—Institute Fellow

Annual Report: The Program in New Haven

A number of the Fellows also have volunteered to mentor new teachers in the New Haven Public Schools. Current and former Institute Representatives and other Fellows have also worked on district-wide committees to develop new curricula and “power standards” for specific grades or subject areas.

Every year the responses of first-time and of veteran participants are reviewed separately because the Institute aims for a high proportion of New Haven teachers to become Fellows and for the Institute to become a regular part of Fellows’ professional lives. Both groups cite their own rewards, including increased expectations for themselves and for their students.

One first-time participant described the experience as “fulfilling,” having “joined because I believed I would learn a lot and be able to contribute to other teachers.” The result: “I did more than just learn. I was able to meet teachers from other schools and subject areas and was able to discuss different methods of teaching and relaying information to students.” Another first-time Fellow spoke of “a great learning experience. The [seminar leader] and Fellows were excellent companions during this entire process. I feel proud, happy and professionally grown.” Another who had “an invaluable experience” looked “forward to using not only my unit in my classroom but also my fellow colleagues’ units.” A science teacher who was “most pleased with the product of the Institute... will use my curriculum in my classroom, and am proud to have produced something of such quality while improving my writing.” Another science teacher participating for the first time said, “My curriculum unit will vastly improve my teaching skills.” A first-time math teacher participant said “My teaching will be improved.” The unit’s “hands-on instruction will challenge the intellect and work ethic of my algebra lab students.” A first-time science Fellow said,

The curriculum will have a major role in my teaching because it helps to organize my ideas into a document that I can use to organize my classroom. A major issue is pacing and trying to incorporate as much content as possible. The unit allows me to combine two units and use a more engaging and interesting approach.

Another first-time Fellow, who was also in his first year of teaching, said,

The Institute helped me solidify and expand my thinking regarding my teaching of literature and the writing process... . Having to critically defend my practice has helped me better understand my goals and objectives... . These discussions have helped me find the language to teach writing more effectively... . Clear differentiation between claims, arguments, and analysis will help my students with their writing and me with my teaching.

The Institute has sought to assist the school district to attract new teachers to New Haven. Associate Director Josiah H. Brown, together with Institute Fellows, spoke at the district’s “visitation day” for prospective teachers on

January 29 and at its orientation for new teachers on August 25. Those events were opportunities to ensure that both prospective and new New Haven teachers were aware of the opportunities for curricular and professional development the Institute affords – opportunities not available to teachers in other Connecticut districts.

For returning Fellows, the rewards of participation do not diminish over time. The experience becomes cumulative, rather than repetitive or redundant. Many teachers report that the benefits increase as one gains experience as a Fellow. One returning Fellow said “Of the three seminars I’ve participated in, I think this was my favorite. Furthermore, I think it’s one of the best units I’ve written” and “I am looking forward to teaching it.” Another “feel[s] confident to teach my class and know[s] that I have the resources that I am familiar with and ... how to access those resources.” Another was “more prepared to teach the subject matter and ... confident in the applicability of the material to my class.” Another “learned a great deal about the process of writing, which I hope will expand far beyond my individual unit and influence other teaching decisions” because “the individual strategies I learned will likely lead to new efforts on my part to improve my students’ writing.” Several other returning Fellows said:

I am always influenced by what I learn in these seminars. My teaching gets better each time I go through the process of writing a unit. I am in the process of making a plan to incorporate my units regularly into the curriculum. It has been revamped so I need to tweak things.

“My teaching gets better each time I go through the process of writing a unit.”
—Institute Fellow

By participating in the Institute I have help in writing curriculum I would have to write anyway. This way the curriculum is tested, well thought-out, and facilitated by an expert in the field.

I hope to use this unit to bring more enthusiasm to my class. While creating the unit I found myself really getting into the topic and trying a lot of activities... . The old saying is true that when you teach something you are excited about, you do a better job. I’m anxious to try the unit with my new class.

This experience has been extremely challenging and positive because the [seminar leader] made us reflect on our writing with the result I really learned. I appreciated the friendly but rigorous atmosphere... . I liked having an active role [as a Representative] because I could better understand what teachers need as professional development.

The strengths of the program have stayed the same since I have been participating in it. It is the best teacher development I have had. It allows teachers to participate in seminars that interest them,

Annual Report: The Program in New Haven

and to tailor the content in those seminars to their specific learners. It also allows teachers to interact with fellow New Haven teachers whom they might not have met otherwise.

The Institute achieves all of its goals. I have been able to participate in a collegial fellowship in which I was able to draw on the strengths of other teachers as well as knowledgeable Yale professors in order to publish a unit. My experience this year was similar to other years – a very positive experience.

Every year since 1990, when they became a regular part of the Institute, elementary-grades teachers have noted the particular advantages of the Institute for themselves and their curricula, which often involve interdisciplinary opportunities to teach reading, writing, math, and other subjects. Three Fellows in the elementary grades remarked on their experience in science seminars:

I hope that the unit and my interest will get [my students] really thinking about science and enjoying. The unit also has a specific science content that students will understand rather than just a string of experiments.

My unit... will allow me to incorporate more science into my classroom. Allowing the students to work on more hands-on activities has helped... to enhance their learning and engage their interests.

My concern was taking complex information and using it to create a curriculum for young children. Also, choosing to take a science seminar was challenging... Although I am very interested in many areas of science, I do not have the educational background that would provide a strong foundation of information. Those concerns disappeared as our seminar progressed. The seminar included a cohesive and supportive group of Fellows with a strong and guiding seminar leader... I developed a stronger unit than my original idea and plan. I credit our seminar leader.

Seminar leaders, too, speak of what they gain from Institute participation. They cite the opportunity for involvement with public education and the University's home community; some also perceive benefits to their own scholarship and teaching. Three said:

I want to stress what a good experience it has been to lead a seminar. I have found the Fellows to be a remarkably impressive and dedicated group of people. I have enjoyed their company and ... profited frequently and consistently from our conversations.

Participation in the Institute has helped me to connect with New Haven. I was impressed by Fellows' enthusiasm for the Institute. I was happy to learn that they have found other Fellows' units to be valuable for their teaching.

The Institute ... is a wonderful way of helping to improve curricula and for bringing together teachers and professors working (and perhaps residing) in the same city... I greatly appreciated what the seminar gave to me in this respect.

Benefits for Students

The ultimate purpose of the Institute is to strengthen teaching in New Haven's public schools and in this way to improve student learning throughout the schools. Contrary to what some would expect of a partnership involving Yale University, the Teachers Institute intends to serve students at all achievement and performance levels. Fellows typically, in fact, write their units for students at more than one level. While most of the Fellows (84 percent) reported that their new curriculum units were designed for their "average" students, three quarters (74 percent) reported that they were designed for their "advanced" students and almost as many (68 percent) reported that they were designed for their "least advanced" students. Fellows commented on these multiple audiences. As one observed, "Differentiated instruction is an essential element in the New Haven Public Schools. My unit contains numerous modifications in order to accommodate all the different needs my students have." Another Fellow's unit "will accommodate all students irrespective of their ability levels." Another's unit "will impact a large number of students ... because it was broken down into separate categories that will be used for separate students groups." Another's "unit will help unify my curriculum and provide students with the opportunity to learn at their own pace." Another said, "I have designed my curriculum unit for bilingual students in grades five through eight."

As in past years Fellows were optimistic about the responses they anticipate receiving from their students to the material they had studied and developed in the Institute. Nearly all of the Fellows agreed (57 percent "strongly agreed") that, as a result of Institute participation, they have a higher expectation of their students' ability to learn about the seminar subject.

Fellows' plans illustrate the wide range of unit use anticipated in schools. Many units focus on reading, writing, thinking, and speaking skills. One "researched how to move my fast learners to that kind of deep attention everyone needs to read and appreciate a classic novel, or any other scholarly text." Using "innovative strategies," this Fellow hopes to "move students to the more traditional methods of writing responses and essays" and "improve their understanding and appreciation for literature." Another's unit "will hopefully get the students more interested in writing, and make it more enjoyable for them." Another expected students "will become more

The ultimate purpose of the Institute is to strengthen teaching in New Haven's public schools and in this way to improve student learning.

Annual Report: The Program in New Haven

fluent writers.” Another believed “the unit I wrote will bring a stronger focus to the study of Shakespeare and Internet research... . [S]tudents will be more critical thinkers when it comes to using technology as well as reading literature.” Other Fellows said:

My students are little exposed to literature and for that matter Latin American literature. Learning and reading work from [some] of the best authors in Latin Americas such as Isabel Allende ... will definitely open new horizons for them.

As a Puerto Rican teacher, I have always wanted to create a unit that exposed my students to the Puerto Rican culture that is rich in New Haven. Many of our students are Hispanic yet many teachers do not have experience teaching Puerto Rican literature... . This unit will expose my students to a genre they are unfamiliar with while allowing me to teach a subject I am passionate about.

The curriculum unit will provide the students with knowledge and information that is currently missing from the Social Studies curriculum... . Textbooks do not give great detail concerning the transmission of diseases and the fatal effects on native populations. The various strategies that I will use to teach the unit can be applied to future units as well.

While some units emphasized literacy, literature, and history, others focused on math and science. One science teacher was “excited to teach my unit this year. I think it is not only appropriate for the students and the standards, but looks at the subject matter in a different way.” According to another, “This seminar gave me practical knowledge of what an engineer does. This will help me expose my students to engineering in their everyday lessons”; further, “my unit was focused on the scientific method and inquiry learning... . [M]y students will benefit because they will be encouraged to think and apply their learning.” Other participants in science seminars said:

By having the opportunity to combine standards and content, and then writing my own curriculum, my knowledge has greatly improved. This will clearly transfer to my teaching as well as to my students... . It is my hope that other ... teachers will be able to see that it is possible to engage students in the content area.

The students should become more engaged through the use of a new learning style... . Students will be able to complete labs and inform one another ... which may be a lot more engaging [than] teacher lectures.

Teachers of mathematics are always searching for content that will link math to other subject areas, and problems that are relevant to the lives of their students. This curriculum unit has content from biology and microbiology that will be relevant and make connections to the lives of the students. In the news is ... swine flu. The mathematics that ties into the spread of diseases will be quite relevant. In the state and national examinations questions are steeped in concepts from different content areas. This unit will provide students with the experience of connecting their mathematics... . In my classroom ... lessons on concepts such as rates of change, and growth and decay rates, will tie in to this unit.

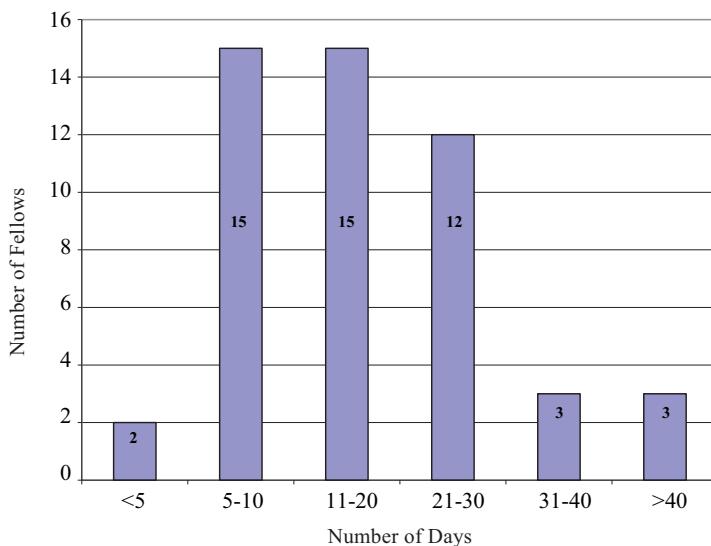
To attempt to gauge the impact of this year's units in New Haven classrooms, we asked Fellows about the number of students to whom they planned to teach their new unit, and on how many days. Nearly all of the Fellows planned to teach their unit to twenty or more students; almost half said that they would teach their unit to fifty or more students. The total number of students to be taught a unit by this year's Fellows is more than 2400. Chart 6 indicates the lengths of time the Fellows planned to teach their units. For almost all Fellows, the unit is a significant part of their teaching plans.

We also asked Fellows who had participated in prior years to report on student responses they had actually observed when teaching units developed in the Institute. Their retrospective comments often supported their optimism about new units. One said the Institute "has opened a world of new resources to my students." This "results in higher-quality material ... influences my happiness as a teacher, my comfort with the subject, and the interest students have in the material." Another "taught several of the lessons to my students in

*For almost all
Fellows, the unit is
a significant part of
their teaching plans.*

Chart 6

Number of Days 2009 Fellows Plan to Teach Their New Unit





Josiah Brown

Fellow Kathleen Z. Rooney teaching her Institute unit in mathematics to her students at Hill Regional Career High School.

the special education setting and they responded well.” Another “was a better teacher and was able to challenge my students appropriately with more interesting lessons.” Fellows spoke of units’ effects on students:

Last year my unit [covered] understanding and analysis of democracy in various literary texts while reinforcing their reading and writing skills. The texts have been really appreciated and the rate of interest has been high... I used the strategies planned more than once and noticed a consistent improvement in my students’ understanding and writing.

It was a resounding success. My students enjoyed the unit and produced astounding results ... [that] were lasting. My unit, although written for a science class, also produced some lovely artwork for our hallway.

I have created the best units I use in my class as a result of the Institute. My units are executed exactly as planned using the strategies and activities prepared and they work out beautifully... The clearest and most visible aspect of my participation in the Institute is seen in the faces of my students. The joy and sense of accomplishment ... as they display their essays and projects that are the direct result of completion of each unit are priceless.

My students benefited from my increased content area knowledge... [and] from my increased attention to long-term planning and desired student outcomes in terms of skills and abilities. My students demonstrated growth as readers, writers,

“I ... noticed a consistent improvement in my students’ understanding and writing.”

—Institute Fellow

and critical thinkers as a result of their participation in the implementation of my Institute curriculum unit.

The unit I created last year went extremely well with my students. It was the first time all of my students heard of John Steinbeck. At first I was nervous my students wouldn't like the book because the setting was foreign to [them]. Yet ... they LOVED it! My students were excited to learn about the Dust Bowl migration and shocked by the photos and treatment of tenant farmers... . One student actually thanked me for exposing her to a subject she had not known about... . Because of my positive experience I am teaching my unit to my juniors every year... . *The Grapes of Wrath* will now be the first novel I teach.

Educating my students on the unit has allowed them to be more open-minded toward their classmates. One group of students can better understand themselves while another can better understand a certain demographic of the population.

The units ... tend to be able to motivate students and capture their interest. The units give the curriculum a lift and provide a time when the students can do projects and work together while still covering the curriculum.

My participation has prompted a number of projects for my students to complete. These projects are talked about the next year and many students come up to me asking if they can participate or do it again. Our students crave these projects that combine information from many sources and strategies that reach many students... . These projects will remain a part of my school's curriculum.

The engagement and attention students exercise when I am teaching the units are extraordinary. I am learning many more strategies, just by interacting with other teachers who are as interested in improving education as I am. The energy is completely different.

My students were much more enthusiastic about the curriculum than students in other classes because of the varied and rich literature they were using in my class. Other teachers complained that their students hated the literacy curriculum, but my students enjoyed it and participated eagerly.

Institute curriculum units past and present have helped to provide an engaging extra... . Students had a ball ... conducting research to learn more about New Haven's early history... . Children shared their discoveries with parents and other members of our school community. Quite a few parents subsequently took their children on excursions to continue examining ... surrounding neighbor-

“Many students come up to me asking if they can participate or do it again. Our students crave these projects.”

—Institute Fellow

hoods. Bottom line: Social Studies and Language Arts were brought to life for all involved!

I already have three curriculum units... designed to meet the needs of my bilingual students... . This past year ... the success of the lessons was again repeated; students wrote interesting authentic pieces ... which were put together in the end-of-the-year book of students' writing.

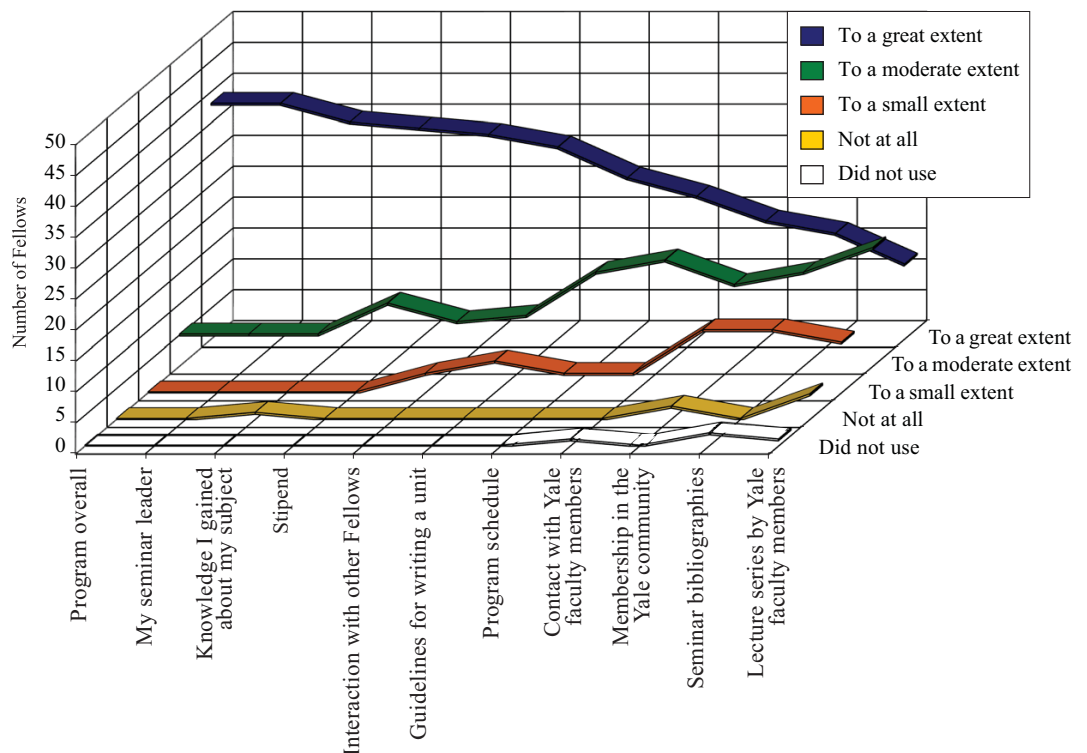
My unit was highly effective in helping students to interpret and evaluate literature... . They were able to engage with the text and get beyond cursory, literal readings. I was able to work with the school's librarian to select titles that were very engaging for students. They were able to work in small groups to independently select books, discuss them and write thoughtful responses. Students gained a sense of ownership... . I shared the strategies I developed with colleagues and they found them to be effective.

Participants' Conclusions Overall

We asked Fellows about the extent to which several features of the Institute had been useful to them. As shown in Chart 7 below (reading again left to right from the most useful to the least useful), very few Fellows said that any aspect of the Institute had not been useful. Ninety-eight (98) percent of Fellows rated the program overall as useful at least to a moderate extent; most (82 percent)

Ninety-eight (98) percent of Fellows rated the program overall as useful at least to a moderate extent; most (82 percent) thought it useful to a great extent.

Chart 7
Program's Usefulness to the 2009 Fellows



thought it useful to a great extent. Every Fellow responded that favorably about his or her seminar leader (84 percent saying useful “to a great extent”). Almost all responded that favorably about the knowledge gained about their subject (98 percent), and interaction with other Fellows (86 percent).

We asked the Yale faculty members who led seminars to comment on the Institute’s strengths and weaknesses. One called the program “thoroughly practiced and skilled in support of the seminar, leaders, and Fellows.” Others said:

The seminar discussions were lively and often very productive... . The Fellows were much more engaged with the subject than undergraduates or even graduate students typically are here at Yale... . I only wish that more teachers in the New Haven school district could take advantage of [the Institute’s] great benefits.

Most of the Fellows devoted a significant amount of time to research and analysis... . The Institute provides a vital means for New Haven teachers to exercise their curiosity and enrich the curriculum. The Institute also provides a significant mechanism for Yale to fulfill some of its obligation to the community.

The Yale-New Haven Teachers Institute is a noble and effective undertaking aimed at improving public school education by enriching the intellectual lives of teachers. It creates a close, collegial community of faculty and teachers who share both the values of learning and service and specific academic interests. I am most honored to have been involved ... this year, and I hope to be able to continue my involvement in the future.

We also asked Fellows about the strengths and weaknesses of the Institute. As with the seminar leaders, the few concerns they expressed concerned the deadlines for unit writing, described earlier in this report. Among its strengths, some Fellows cited teacher leadership and the program’s responsiveness to teachers: “The Institute’s school Representatives and Contacts that I have dealt with do a wonderful job serving as liaisons... . Also, Coordinators provide ample support and guidance.” Another said, “Teachers are given many responsibilities, from the selection of seminar topics, accountability for attendance and promptness to completion of the unit in adherence to specific guidelines.”

Other Fellows cited “the seminar leaders. I had an excellent experience with mine.” One wrote, “Yale professors... help the teachers create innovative curriculum units. As teachers, we can bring this new knowledge to our schools at every grade level.” Another Fellow said seminars benefit from their intimacy, from “the small number of Fellows [which] was important in allowing us to be or become comfortable in discussions and ... good critics of each other’s” curriculum units. This participant “had difficulty thinking of

“It creates a close, collegial community of faculty and teachers who share both the values of learning and service and specific academic interests.”

—Institute Fellow

“I wish that all forms of professional development were as rigorous, well-organized, well-planned, useful and applicable as the Institute.”

—Institute Fellow

weaknesses,” adding “I wish that all forms of professional development were as rigorous, well-organized, well-planned, useful and applicable as the Institute. Thank you!” A Fellow who faulted how certain “deadlines didn’t seem to mesh well with the school calendar this year” nonetheless said,

The Institute is very well organized and run with a high degree of professionalism. The talks were thought-provoking and the topics this year seemed especially pertinent to the lives of my students. My seminar leader was the best editor I’ve ever had and . . . was there for every step of the process. It is always a pleasure to be included in the Yale community. . . . I feel very fortunate to have been part of the program for the past two years. Participating in the talks, seminars and especially the unit writing has made me a better teacher.

Others commented on the Institute’s strengths:

The five talks, and of course the Coordinators’ presentation on how to write a unit, were especially engaging. I never felt that I was wasting my time or didn’t understand the topic, and the professors seemed so enthusiastic.

The touring of the library and other places around Yale was very important for Fellows and made them feel more comfortable while working on their unit. The amount of help and support is greatly felt in the Institute. Also, in the beginning when all current Fellows got together to understand what was expected of them and when things should get done was great.

The program has many strengths. . . . One of the most important is the collegial atmosphere that exists among participants and between participants and leaders. For me it was very respectful and non-competitive. . . . My seminar leader treated us as peers and did not talk down to us. He was truly engaged. The program is a very strong one and a remarkable resource to the school district.

I can only think of positive things. Everything went well and all the events and tours were well organized and very helpful. The talks this year were especially interesting and of great quality.

There was a . . . professional atmosphere. . . . My colleagues and I were treated as professionals; there were not as clearly defined teacher/student roles between our seminar leader and seminar participants.

The best resource . . . was the seminar leader [who had a] manner that was easy to comprehend. The strengths of this year’s Institute

Annual Report: Participants' Conclusions Overall

were its seminar offerings, the quality Fellows it assembled, the wealth of knowledge.

One first-year science teacher said:

The overall strength of the program lies with the dedicated participants: the leaders, Fellows, Coordinators, and school Representatives were all committed to the program. I do not feel the Institute would be as successful without that kind of commitment... . Subject areas were focused and easily applicable to curriculum standards... . I was approached by the school Representative to get suggestions... . I was always made to feel that participation in the Institute was an experience not to be missed; I agree... . The opportunity to connect with other, more experienced teachers on a weekly basis outside of school was also beneficial not only as far as writing my unit, but also in implementing it into the New Haven curriculum.

Several first-time Fellows observed:

The Institute has many strengths. The ones that are specific to me as a first-year participant are: diverse and interesting lecture topics, the helpfulness of my Coordinator, and the accessibility to my seminar leader and her ability to help me.

I am very happy with the degree of professionalism. The only weakness, that I am not sure is one, is the fact that sometimes the seminar overwhelmed me with information... . However, the professors did a great job.

I appreciated the weekly meetings. I think that is a huge strength. The information that was disseminated has been very useful. I have learned things that I have not been exposed to in the past. I looked forward to the seminars.

It took a great deal of time and effort to complete. This could be due to the fact that this is my first year in the Institute... . But I did receive a great deal of assistance from the seminar leader, who was extremely proactive in meeting with [us]. He took the time to review the unit and help with any difficulties.

This was my first year in the Institute. It is very challenging to make a critique of this organization. There were so many strengths that I will probably leave a couple out. The personal touch of the Institute was fantastic... . The organization is very welcoming and supportive. Many teachers in our seminar and other seminars were always there to offer assistance. The access to Yale, including the

parking, was great. The collaboration between teachers and Yale is the strongest benefit of the program... . The only weakness was my ability to write. The Institute offered lots of assistance so there really was no weakness.

“The Institute is a very strong and valuable program. I hope to participate indefinitely.”

—Institute Fellow

The Institute is a very strong and valuable program. I hope to participate indefinitely. The opportunity is its strength: academic enrichment, group learning with like-minded individuals, exposure to one of the greatest academic institutions in the world.

Those teachers who had participated previously spoke, too, of rewards both recent and cumulative. One returning Fellow said, “Participation in the Institute has been very important in keeping me excited and enthusiastic about what I teach.” A second said, “Each year I participate, I streamline my writing/research and present my curriculum with greater clarity. Repeating this process every year makes Fellows more proficient.” Other returning participants wrote:

I honestly do not have anything negative to say about the Institute. I feel much fulfilled... . The seminar leader was extremely helpful in the [unit] development and writing processes... . The seminar itself was a strength including the leader, the Coordinator, and the other Fellows... . In comparison to my participation the last two years, this year’s seminar was equally enlightening but I felt more at ease after having completed two units prior... . The units I wrote the last two years and have taught these past two years were successful. I integrated art, technology, and science with literacy which made learning the new concepts fun. I shared my units with other colleagues in my school.

The Institute allows teachers to take professional development into their own hands. I believe that is the Institute’s greatest strength. It allows a teacher to delve into a subject... . Most times elementary teachers just know surface knowledge about many subjects... . The Institute has made me a better teacher by providing me with background knowledge and a curriculum [unit] that takes the curriculum and makes it interesting and informative.

The Institute has maintained its high standards... . Involving both the Yale Library as well as the Yale Art Gallery as resources is a definite plus... . Having access to such Yale facilities helps to enhance one’s experience and one’s curriculum unit. I thoroughly enjoyed my seminar and hope [the seminar leader] will soon offer another... . He was superb... . I see no weakness in the Institute.

The Institute provides a rare opportunity for the teachers in New Haven to work together... . It is a well oiled process... . The quality of knowledge offered by the seminar leaders was again top notch. This entire process of professional development should be a model for the whole nation. It is definitely how teachers should prepare and how students should learn.

Once again, this experience was tremendous! I am energized not only to teach my unit from this year's work but to just get back to school in the fall and teach my students! Learning new material reminds and encourages me that students in our schools should be experiencing the same excitement; I would like to be able to transfer that enthusiasm to them... . I came away each week feeling excited about what was going to be presented that day and what I would take away as new and illuminating knowledge.

In their evaluations, almost all the Fellows said they would participate (64 percent) or might participate (30 percent) in the Institute in one or more future years. These proportions are comparable to responses in prior years. Only two individuals said they would not participate in the future; one was "moving [out of state and] ... would otherwise have answered yes." The other emphasized, "I'm not leaving because of the program; I'm starting a new degree program that will be rigorous." Among those who said they might participate, few suggested any changes to the program. As one Fellow wrote, it "depends on seminar topics. If I think I can make a useful unit and that it will also interest me, I will probably apply."

Electronic Resources and Assistance

For a number of years the Institute has explored ways computing could assist with its work. In earlier years the Institute provided teachers computers to use in schools where none were otherwise available to them. It encouraged Fellows to learn about and use e-mail. And the Institute put the New Haven Public Schools' curriculum framework online before the district was able to do so. It placed Fellows' curriculum units online on a gopher server before the Internet existed in its present form.

More recently, as computers have become nearly ubiquitous; as teachers' use of e-mail has become more routine; and as Fellows' knowledge of computing has increased, the Institute mainly has assisted Fellows in formatting curriculum units in a manner consistent with its mechanical specifications so that units can readily be put on the Institute's Web site. Because of the benefits of having units online, the Representatives had decided that, beginning in 1999, Fellows must submit curriculum units and *Guide* entries in electronic as well as printed form. Still, in 2009 some Fellows also sought help with getting started with computing, e-mail, and using the Internet.

"This ... process of professional development should be a model for the whole nation. It is ... how teachers should prepare and students should learn."

—Institute Fellow

"I am energized not only to teach my unit ... but to just get back to school in the fall and teach my students! Learning new material reminds and encourages me that students ... should be experiencing the same excitement."

—Institute Fellow

Annual Report: The Program in New Haven

The Institute employs graduate and undergraduate students to offer this assistance by phone, by e-mail, or in person. In addition, Fellows may use computing facilities available to members of the University community across the campus. The electronic resources and services include opportunities to learn about and use computing. Each Fellow receives a University network ID and password for use of databases and other electronic resources available only to members of the Yale community.

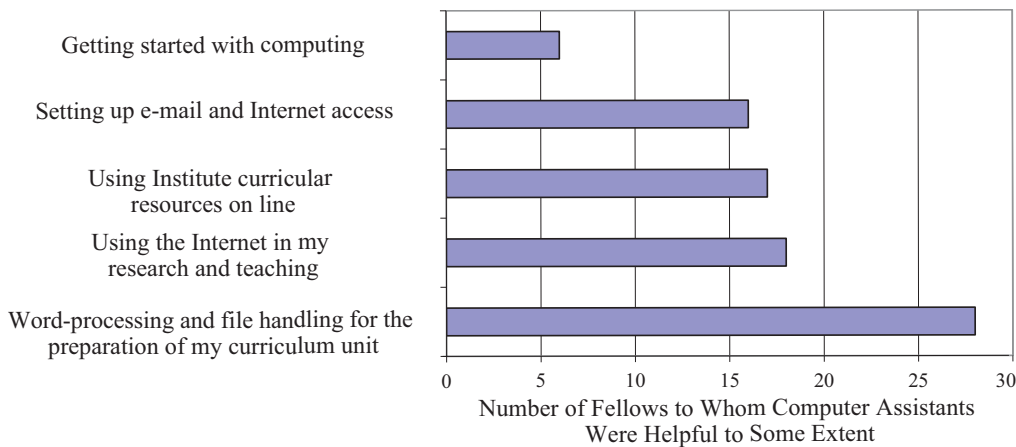
Staff from the University Library conducted a workshop for Fellows on March 18. This session featured an overview of search engines; exploration of curricular resources through the Institute's Web site; and guidance on how to use online research tools of the Yale libraries, including databases and journals. In addition, the Institute arranged a workshop on digital illustration and an orientation to Sterling Memorial Library and Bass Library, including computing resources and online images. One seminar leader arranged for her group to hold a library computing session. Two Fellows said:

I used the computer assistance for help in setting up remote access to the Yale library system, and ... log[ging] in to the online art catalogs. In both cases, the assistance was immediate and complete, and I am very grateful to have had it.

I took full advantage of all the extra computer classes that were offered to the Fellows. My seminar leader had arranged a class with one of the librarians and we learned how to do research using the various Web sites and search engines Yale has to offer. In addition we had another class in the computer lab of Bass Library where we learned about how to use the different reference Web sites to keep track of research and create bibliographies. I also attended a class that focused on how to draw and create images on the computer. All of the classes were incredibly informative and valuable in increasing my technological education.

Of those Fellows who used the computer assistance the Institute provided, six found the assistants helpful in getting started with computing; sixteen found them helpful in setting up e-mail and Internet access; seventeen found them helpful in using the Institute's curricular resources online; eighteen found them helpful in using the Internet in research and teaching; and twenty-eight found them helpful in word processing and file handling for the preparation of a curriculum unit. (See Chart 8.) One fifth (19 percent) sought this assistance in person, several (11 percent) by phone, but three quarters (76 percent) by e-mail. For the sixth year the Institute also provided each seminar with its own e-mail group to facilitate communication. Some seminar leaders chose to use Yale's classes server for posting and viewing documents, while another leader established a Web site designed for that seminar's use.

Chart 8
Computer Assistants' Helpfulness to the 2009 Fellows



For two thirds (66 percent) of the Fellows availability of computer services was an incentive to their participation. Most who did not use computer assistance said they did not need it because they had previously acquired sufficient computer skills or had other resources at home or at school. A few said they did not do so because of time constraints. Returning Institute participants described how they had gained proficiency and confidence in computing over time. One said, “Many of my questions regarding the functioning of the university computer systems had been answered in previous years.”

For two thirds of the Fellows availability of computer services was an incentive to their participation.

Nearly all who did take advantage of the assistance commented favorably. One said computer assistants “were supportive and the response was excellent.” Another called the assistance “very helpful.” Others wrote,

Computer assistance is invaluable to the Fellows. I had a number of questions and formatting concerns, as I know other Fellows in my seminar had as well, particularly with embedding images and charts. Thanks for their great support!

When [I was] submitting my paper to be checked for mechanical specifications mid-seminar [the computer assistant] found several mistakes ... and was quick and helpful with questions I had. In order to help me put images into my unit, he e-mailed very easy-to-understand directions and offered to meet with me. He responded quickly with more directions when I gave specifics on exactly what I wanted them to look like. I really appreciated this.

Preparation for the Program in 2010

From June through August the Institute identified and approached the forty-four teachers who would serve during the 2009-2010 school year as the fifteen Representatives and twenty-nine Contacts for their schools. During 2008-2009, forty-three teachers had served in these capacities, eighteen as Representatives and twenty-five as Contacts. Representatives were selected according to recommendations of the teachers who served as seminar Coordinators and conversations they had with teachers who had served as Representatives in the past, with other Institute Fellows, and with some school principals. Because as a group the Coordinators had become acquainted with the Fellows in their seminars, they could consider all current Fellows for leadership positions, as they sought to ensure continuity while also including teachers who had not before served in these positions.

The number of Representatives and Contacts is roughly proportionate to the number of schools at each level. In 2008-2009, twenty-three (53 percent) were from elementary or K-8 schools, three (7 percent) were from middle schools, three (7 percent) were from transitional schools, and fourteen (33 percent) were from high schools. In 2009-2010, twenty-five (57 percent) were from elementary or K-8 schools, two (5 percent) were from middle schools, four (9 percent) were from transitional schools, and thirteen (30 percent) were from high schools. Every school had at least one Contact or Representative to serve as a conduit for information to and from the Institute throughout the school year; many of the Representatives assumed responsibility for more than one school. Of the Representatives and Contacts, about 15 percent were black non-Hispanic, 83 percent were white non-Hispanic, and 2 percent were Hispanic – percentages that approximate the demographic composition of teachers in the district at large. (See Table 1, page 26.)

Through the Representatives the Institute ensures that all teachers may have an effective voice in shaping a program in which they will have the opportunity to take part.

Representatives meet twice monthly from September through December and weekly in January and February. They receive honoraria for this work and agree in advance to participate in the program they are planning; Contacts perform many of the same functions but are not required to participate in meetings or commit to applying to be Fellows. Through the Representatives and Contacts, the Institute ensures that all teachers throughout the school district may have an effective voice in shaping a program of curricular and staff development in which they will then have the opportunity to take part.

The Representatives' first meeting for the new school year was on September 8, and on September 15 the Institute held a reception for Representatives and Contacts. Between meetings, the Representatives communicate by phone and through school visits with the Contacts for whom they serve as liaison to the committee of Representatives. In these ways, teacher leaders compile information from, and distribute information to, colleagues throughout the New Haven schools.

During the fall, as many as ninety-three teachers expressed interest in the seminars being planned for 2010. By December the Representatives had decided to offer four seminars: “Interdisciplinary Approaches to Consumer Culture,” to be led by Jean-Christophe Agnew, Professor of American Studies and of History; “The Art of Reading People: Character, Expression, Interpretation,” to be led by Jill Campbell, Professor of English; “Geo-microbiology: Life on the Rocks,” to be led by Ruth E. Blake, Professor of Geology and Geophysics; and “Renewable Energy,” to be led by Gary W. Brudvig, Eugene Higgins Professor of Chemistry and Professor of Molecular Biophysics and Biochemistry.

Documentation and Evaluation

Annual evaluations of the Teachers Institute indicate that it assists teachers and schools in specific ways, and that the results are cumulative. In the fall of 2009, the Institute updated its continuing study of New Haven teachers who have been Fellows. This study reveals the proportion of eligible teachers from each New Haven school and department who have participated, the number of times Fellows have completed the program, and whether Fellows have remained in teaching in New Haven.

Of the 674 New Haven teachers who have completed the program successfully at least once between 1978 and 2009, 196 (29 percent) were teaching in the New Haven Public Schools in October 2009. (Please see Appendix for a list of all Fellows from 1978 through 2009.) An additional twenty three (3 percent) held full-time administrative positions in the school system, most (thirteen) as principal or assistant principal. All but one of these individuals were teachers when they first participated as Fellows. There were thirty-five (5 percent of all) former Fellows serving in such capacities as instructional coach (nine); counselor (nine); or library media specialist (twelve). Most (twenty five) of these thirty-five individuals, including eight of the nine instructional coaches, were classroom teachers when they first became Fellows.

Overall, then, 251 (37 percent) of all Fellows since 1978 were still working in the New Haven Public Schools. (Two others were on leave.) Of the 196 Fellows who were teachers in 2008-2009, 148 were teaching in the six core subjects in the humanities and the sciences. The core fields with the largest number of Fellows were English (thirty-three individuals), science (nineteen), and math (eighteen), and history (eighteen).”

Overall, 251 (37 percent) of all Fellows since 1978 were still working in the New Haven Public Schools.

Of the 196 Fellows still teaching in New Haven, half (49 percent) have participated in the Institute once, 31 percent either two or three times, 14 percent four to six times, and 7 percent (thirteen individuals) between seven and seventeen times. Of the thirty-five Fellows in other roles, half (49 percent) participated once; ten (29 percent) participated two or three times; five (14 percent) four to six times; and three (9 percent) between seven and fourteen times.

Of the twenty-three New Haven Public Schools administrators who have participated as Institute Fellows, two thirds (65 percent) participated once or twice; five (26 percent) participated three to five times; and two (9 percent) participated nine and twenty-three times, respectively. Having former Fellows in positions ranging from assistant principal and principal at the school level, to associate superintendent, director of instruction and curriculum supervisor at the district level, has made the Institute more visible, and has encouraged teachers to participate. In the fall of 2009, five of the district's forty-five schools had former Institute Fellows as principals; an additional seven schools had assistant principals who were former Fellows. Overall, about one quarter of New Haven schools had former Institute Fellows in these administrative roles.

In research for a new report published in 2009, *To Strengthen Teaching: An Evaluation of Teachers Institute Experiences*, Rogers M. Smith of the University of Pennsylvania examined retrospectively the results of Institute participation for New Haven teachers between 2000 and 2005. According to Smith:

“Those who choose to be Fellows are much more likely to continue teaching in the district than those who are not. Institute participants had nearly twice the retention rate of non-participants in local teaching.”

—Rogers M. Smith
University of
Pennsylvania

The New Haven quantitative study indicates that Institute seminars attract a broad range of teachers from every observable demographic category and that those who choose to be Fellows are much more likely to continue teaching in the district than those who are not.

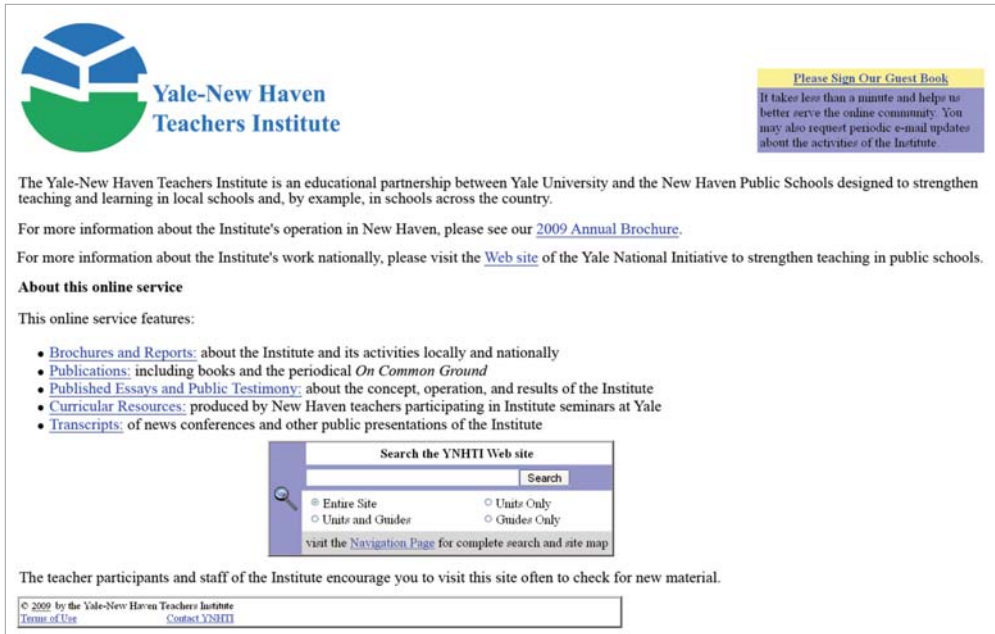
The study also shows that Institute participants had nearly twice the retention rate of non-participants in local teaching. Because research suggests that experience within a district is more strongly associated with teaching effectiveness than earlier experiences elsewhere, this finding is especially notable.

Reginald Mayo, who since 1992 has been Superintendent of the New Haven Public Schools, Yale's partner in its Teachers Institute, said this report underscores the benefits he has long observed the district receives from the Institute:

The Institute has made an enormous contribution to strengthening teaching and learning in the New Haven Public Schools. It has been a significant factor in school improvement by exciting teachers and sparking student interest in learning. I have seen how powerful Institute participation can be for creating a very fruitful collaboration among teachers within a school, and in stimulating them to learn more about the subjects they teach and to develop new classroom materials that excite and engage students in learning. Maintaining this kind of teacher quality in our schools has never been more important, so the report's finding about the retention of Institute participants is especially encouraging.

THE INSTITUTE AND INITIATIVE WEB SITES

Electronic versions of the curriculum units Institute Fellows write and other Institute publications are available at the Yale-New Haven Teachers Institute and Yale National Initiative Web sites (www.yale.edu/ynhti and teachers.yale.edu). The New Haven Web site played an important role during



Yale-New Haven Teachers Institute

Please Sign Our Guest Book
It takes less than a minute and helps us better serve the online community. You may also request periodic e-mail updates about the activities of the Institute.

The Yale-New Haven Teachers Institute is an educational partnership between Yale University and the New Haven Public Schools designed to strengthen teaching and learning in local schools and, by example, in schools across the country.

For more information about the Institute's operation in New Haven, please see our [2009 Annual Brochure](#).

For more information about the Institute's work nationally, please visit the [Web site](#) of the Yale National Initiative to strengthen teaching in public schools.

About this online service

This online service features:

- **Brochures and Reports:** about the Institute and its activities locally and nationally
- **Publications:** including books and the periodical *On Common Ground*
- **Published Essays and Public Testimony:** about the concept, operation, and results of the Institute
- **Curricular Resources:** produced by New Haven teachers participating in Institute seminars at Yale
- **Transcripts:** of news conferences and other public presentations of the Institute

Search the YNHTI Web site

Search

Entire Site Units Only
 Units and Guides Guides Only

visit the [Navigation Page](#) for complete search and site map

The teacher participants and staff of the Institute encourage you to visit this site often to check for new material.

© 2009 by the Yale-New Haven Teachers Institute
[Terms of Use](#) [Contact YNHTI](#)

the National Demonstration Project, as a link in its network of information and a model for the Web sites of other Teachers Institutes, and it remains essential as the Yale National Initiative proceeds. The full texts of almost all the curriculum units written in New Haven between 1978 and 2009, plus an *Index* and *Guide* to these units, are available online to teachers in New Haven and elsewhere. Information about the New Haven Institute (its brochures and most recent Annual Reports) is also available.

The Institute inaugurated in February 2004 a new Web site for the National Initiative, which includes links to the New Haven Web site and to those of the other Teachers Institutes. Many of the publications on the New Haven Web site are available on the national Web site. That site – which registered some 3.9 million “hits” in 2009, approximately double the number for 2008 – also features extensive information on



YALE NATIONAL INITIATIVE
to strengthen teaching in public schools

THURSDAY, MARCH 5, 2011 1:32 PM (EST)

HOME | ABOUT THE INITIATIVE | LEAGUE OF INSTITUTES | CURRICULAR RESOURCES | ON COMMON GROUND | TEXT VERSION

Home

About the Initiative

League of Institutes

Curricular Resources

On Common Ground

Publications

Participate

Contact

Give to the Initiative

Sign Our Guest Book

Teachers take the lead in planning Teachers Institutes for their communities.

About the Initiative
The Initiative is a long-term endeavor to establish exemplary Teachers Institutes in states around the country.

League of Teachers Institutes
Teachers Institutes participating in the Yale National Initiative comprise a League of Teachers Institutes.

Curricular Resources
Explore thousands of curriculum units in the humanities and the sciences prepared by participating teachers.

On Common Ground
Read our periodical on strengthening teaching through school-university partnership.

Publications
Examine reports, evaluations and articles on the Teachers Institute Approach.

Participate
For teachers interested in our national seminars and institutions interested in establishing a Teachers Institute.

FEATURE STORY
Initiative Offers National Seminars

LEAGUE NEWS
Delaware Teachers Institute in New Castle County Named a Member of the League of Teachers Institutes in the Yale National Initiative

Search Curricular Resources from National Seminars and Local Teachers Institutes.

» Archive

SEARCH GO

the Teachers Institute approach, activity of the National Initiative, news from the League of Teachers Institutes, and an interactive area for Initiative participants to submit and track applications.

Guest books on both Web sites invite comments and suggestions. The national Web site also invites comments on specific curriculum units and provides other online forms to solicit information from teachers, schools, colleges and universities interested in the Initiative. In recent years the New Haven site has been used by more and more people in many parts of this country and around the world – teachers from both public and private schools (including Fellows from other Teachers Institutes) school and university administrators, parents, volunteers, university professors, high school students, graduate students, librarians, military personnel, home-schoolers, local policy-makers, and others researching or having an interest in education. The Institute’s Web site has continued to be among the most popular on Yale University’s Web server.

We continued to hear from individuals in many countries.

In 2009 we continued to hear from individuals in many countries. A partial list would include elementary- and secondary-school teachers, university professors, college students and researchers from Brazil, Canada, France, Hungary, Indonesia, Israel, Japan, Kuwait, Lebanon, Mauritius, Nigeria, Russia, South Africa, and the United Kingdom. In 2008 we had heard also from Argentina, Australia, China, Germany, India, Iraq, Italy, Malaysia, Mexico, the Netherlands, Pakistan, the Philippines, Portugal, Qatar, Somalia, Swaziland and Venezuela. In 2009 as in earlier years, the comments that these online visitors submitted were nearly all complimentary.

A faculty member at Nigeria’s Ebonyi State University in Abakaliki was impressed with a curriculum unit “on African literature and admire[d] the more intense factual presentation of perspectives which is not so common in many institutions in Western Europe.” A faculty member at the Lebanese International University commented, “This is an excellent Web site that feeds ... hungry minds of everything they need to update their learning and teaching.” He continued, “Its open-minded approach and diversified cultural and learning perspectives are quite essential for an international reader like myself.” A graduate student at the University of Tokyo said, “My research topic is multicultural education, or education for immigrant students, based on social sciences. Curriculums on this site are [use]ful references for my research.” A student at Glasgow University in Scotland, writing a dissertation "on the way in which utopian communities were affected by the Civil War," contacted a former Fellow for advice. A coordinator of homework clubs in the Canadian city of Edmonton in Alberta said, “I like the site. It is rich in resources, directives and tools.” A “storyteller” from Montreal wrote,

I am very pleased to have discovered your excellent website. It helps me to develop activities that are connected to stories I am telling elementary students in libraries in two of our city’s poorest neighbourhoods. Wonderful resource! Thanks to you for a

very useful tool!

From around the U.S. came similar statements concerning a wide range of disciplines. A pre-service teacher at Grand Valley State University in Grand Rapids, Michigan sought more information about the Institute and its resources. A Salem, Oregon “Native teacher teaching at an all-Native boarding school” wrote us from Chemawa Indian High School. Also from Oregon, a Portland correspondent said “Many thanks!” for a literature unit. A public school teacher in Guthrie, Oklahoma said, “I want to start a women’s writers class at the high school where I teach. A class like this has never been taught before and I have to come up with a curriculum before I can teach it.” This correspondent planned to use an Institute unit as “my curriculum for the class. . . . I read through the lesson and really love the way it is set up. I hope I can use this format to further educate my students.”

A public school teacher at Newark, New Jersey’s Science Park High School observed, “I’ve found the Yale Teachers Institute site tremendously helpful, and the provided resource materials are extremely compatible with lessons I am conducting in a sophomore level World History class.” A teacher in Purchase, New York “would like to know more about the Institute.” A New York teacher developing an ultrasound physics course for a new diagnostic ultrasound program “was very impressed with” an Institute unit and “would like to utilize some of the concepts as an introduction to the course (in my first lecture).” From the Bronx, a teacher at the School for Law and Public Service said, “Thank you for the extensive support you are offering teachers!”

A teacher at Pittsburgh Public Montessori School sent “thanks for making this available online. I am going to use it for African American History month and to help improve my students’ emotional literacy. I am sure it will prove to be a great resource.” A Monmouth, Maine teacher explained, “We are currently studying plate tectonics. I work with students who are younger. . . . I would like to modify the unit to reflect their grade level.” From Maryland, a public school teacher in Marion Station noted the value of a 1986 Institute unit on European medieval history. A Montross, Virginia educational program director for the Westmoreland County Museum remarked, “This is an excellent source, easy to read, with great suggestions for programs.” A Chicago teacher wrote,

I came across [a] Fellow’s unit study on poetry in the elementary classroom. It was very well-written and I used it in my classroom this past year very successfully. It is great to have access to these well done units for a classroom teacher who has great ideas but is immersed in the classroom without a moment to write down her lessons properly.

Also from Illinois, an education student and math/science tutor in Worth wrote, “I am putting together an advisory lesson about flow charts as a problem-solving tool for middle school students. I am totally interested” in an Institute math unit. A librarian at Chicago’s DuSable Museum said, “The units

“It is great to have access to these well done units for a classroom teacher who has great ideas but is immersed in the classroom without a moment to write down her lessons properly.”

*—Teacher from
Chicago*

on this site provide background information on a variety of topics. I visit the site frequently, both to browse and as a lead from an Internet search.” A faculty member at Loyola University in Chicago added, “Great resource for my doc level Multicultural Education Class.”

An administrator at Florida’s Union Institute and University wrote, “I was sent a copy of *On Common Ground* #13, Spring 2009 and was extremely impressed and have shared the copy with some of my faculty. I look forward to learning more about your group.” A charter school teacher in Orlando said of some unit lessons, “They are great to use.” In Melbourne, Florida, an elementary school teacher wrote, “Fun, cool, great for science fair info.”

A public school teacher in Austin, Texas has “used the resources available on this site to augment resources for students.” She said, “I like the dynamic approach... . Thanks for what you do.” A teacher in Portland, Texas wrote, “I am so jealous that we do not have something of this nature in my school district. I have enjoyed ‘roaming around’ this Web site. Thank you for making it available.” An educator in Houston was “impressed with [a unit on] African-American folktales and their use in an integrated curriculum.” From Rhome, Texas, a school administrator sought permission to use a unit for “middle school orientation with my sixth grade team of teachers at my campus. I want my teachers to review this program as it is written and build a program that will meet the unique needs of our students.” This will be “a model from which to create our own program.” A special education teacher in Baton Rouge, Louisiana was interested in a poetry unit: “I truly believe that this unit would be beneficial for my students. Many of these activities fit my students due to their many different levels of learning.” From North Carolina’s Roanoke Rapids High School: “I teach Earth and Environmental Science... . I have found your site very helpful with providing higher level experiences for my honor students.” A public school teacher in San Ramon, California’s Dougherty Valley High School commented, “Fantastic material!”

“I am so jealous that we do not have something of this nature in my school district. I have enjoyed ‘roaming around’ this Web site. Thank you for making it available.”
—Teacher from Texas

The Institute’s Web site elicited other intriguing comments. From Grenada, Mississippi, a community organizer reported, “I am very excited about the teaching units on this site. I have integrated some of the materials into our work with African American students.” A journalist for the *Star News* in Wilmington, North Carolina “came across the entry researching an article. Thank you.” An author/researcher in Sedona, Arizona sought permission to use work from a unit for a book project. We heard, too, from a board member at the Brazilian Cultural Center of Chicago. From Mauckport, Indiana came this message: “I am a mother trying to teach my children everything I can. I love the Web site. So much for us to learn from it. I can’t wait to get started.”

Clearly the curriculum units prepared by Fellows of the Yale-New Haven Teachers Institute continue to demonstrate their usefulness in many different ways for teachers and others who are engaged within a wide range of subjects and who have received many kinds of preparation.

UNIVERSITY ADVISORY COUNCIL

Yale faculty members advise and assist the Institute through the University Advisory Council and its Executive Committee, both appointed by the Yale President. (For members of these bodies, see Appendix.) The Advisory Council guides the general direction of the program and acts as a course-of-study committee so that the Institute can certify Fellows' work to institutions where they may be pursuing advanced degrees. The Council also advises the Yale President on the Institute and, more generally, on matters concerning the University's involvement with the schools locally and with public elementary and secondary education nationally.

The University Advisory Council normally meets once each year, the Executive Committee at least once each semester. The Co-Chairs of the Council communicate frequently with the Director between meetings.

In 2009 the Executive Committee met on March 6, April 1, April 30, September 9, and November 9. In March the Committee discussed Institute finance and fund raising, campus space, and the University Advisory Council meeting scheduled to be held on May 19 with President Levin. The Committee reviewed New Haven and national seminars that had been proposed for 2009 and, acting in its capacity as the Institute's course-of-study committee, approved these offerings. At the April meeting the Committee explored the future of, and next steps in, the Yale National Initiative, which was in its fifth year of offering national seminars.

With regard to membership on the University Advisory Council, the Executive Committee agreed to recommend to President Levin that he invite Murray J. Biggs and Edward S. Cooke Jr. for additional terms of five years. The Committee also decided to recommend that the President invite faculty members Janice Carlisle and Paul E. Turner to serve on the Council.

ON COMMON GROUND®

On Common Ground is published periodically by the Yale-New Haven Teachers Institute. It is concerned with the development of teachers and of their curricula through school-university partnerships. Its title, which derives from that of the first book on the Institute's work, *Teaching in America: The Common Ground*, is intended to suggest that university and school teachers across the country have a strong mutual interest in the improvement of teaching and learning in schools. The periodical focuses on the issues that have arisen and continue to arise in university-school partnerships of many kinds throughout the United States.

The circulation of the periodical is over 15,000 nationwide and includes the following, in addition to numerous teachers and administrators at Yale University and in the New Haven Public Schools: the Chief State School Officers; superintendents of school districts enrolling 5,000 or more students; all college and university presidents and chancellors and chief academic officers; deans and directors of education, continuing education, and graduate programs at four-year institutions; directors of community services and governmental relations at four-year institutions; heads of many corporations, foundations, and professional organizations involved in education reform; education policy makers at both the federal and state levels; members of the print and broadcast media who cover education; and a growing list of individuals who have asked to receive it. The periodical is mailed also to individuals in schools and colleges across the country with whom the Institute has worked since the inception of its dissemination activities in the early 1980s.

Each number of *On Common Ground* has a topical focus, developed in one or more lead essays, and also deals more briefly with other matters of current interest. Number 1 featured an essay by Secretary of Education Richard Riley on "The Emerging Role of Professional Development in Education Reform." Number 2 featured an essay by Vito Perrone on the historical context of school-university collaboration. Number 3 featured an essay by Robert Reich, Secretary of Labor, on the role of partnerships in "Creating New Paths to the Middle Class." Number 4 was devoted to "Partnerships in Science and Technology," Number 5 to "Partnership and the Arts," Number 6 to "Educational Organization and Change," Number 7 to "Diversity, Partnership and Community," and Number 8 to "Building Partnerships for Our Children." Secretary of Education Rod Paige contributed the feature article for Number 9, a "Special Issue on Urban Partnerships."

Beginning with Number 10 in spring 2005, the periodical became a principal means of disseminating information about the Yale National Initiative. Senator Joseph Lieberman wrote the feature article for Number 10 on "Establishing Institutes Throughout the Nation." Number 11, published in 2007, reported on "The Yale National Initiative: Making Connections." Number 12, published in 2008, addressed "Teachers Institutes for the Nation," with cover articles by Senator Joseph Lieberman and by Representatives Rosa L. DeLauro and Joe Courtney. Others who have written articles for *On Common Ground* include: Bruce M. Alberts, Roland S. Barth, Ernest L. Boyer, Lauro F. Cavazos, Terry Knecht Dozier, Elliot Eisner,

Thomas Furtado, James Gray, Kati Haycock, James Herbert, Arthur Levine, Gene I. Maeroff, Deborah Meier, John Merrow, Thomas W. Payzant, Sherry H. Penney, Jay L. Robinson, Sophie Sa, Charles S. Serns, and Suzanne SooHoo. Until his death in 1995, Fred M. Hechinger contributed a regular column "On Partnership."

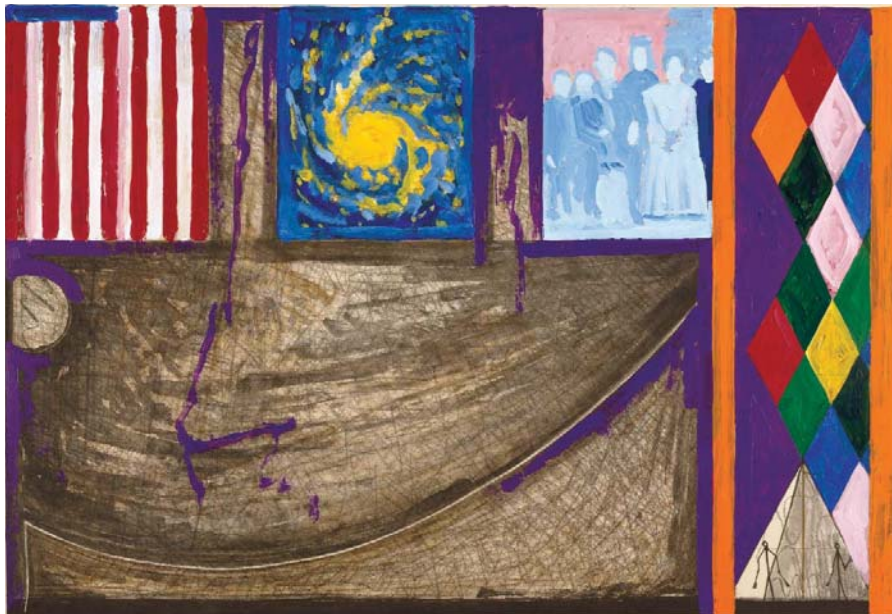
In the spring of 2009, the Institute published online and mailed about 15,000 printed copies of Number 13 of *On Common Ground*. This number, on "Learning Through Vision and Re-Vision," contained articles by Yale faculty members about national seminars they have led and by National Fellows about student response to curriculum units they have written in those seminars. It also included accounts of the progress being made in developing new Teachers Institutes in certain locations and a condensed version of the new report, mentioned above, on research by Rogers M. Smith that documents the efficacy of the Teachers Institute approach in fostering teacher quality.

On Common Ground[®]

Strengthening Teaching through School-University Partnership

YALE-NEW HAVEN TEACHERS INSTITUTE[®]

NUMBER 13, SPRING 2009



JASPER JOHNS, UNTITLED (CATENARY SERIES), 2001

Learning Through Vision and Re-Vision

By Thomas R. Whitaker

At the heart of every Teachers Institute is a process of "learning through vision and re-vision." That is why we've placed on our cover the most vivid of the thirteen pieces in Jasper Johns' "Catenary Series," on exhibit this past winter at the Museum of Modern Art in New York. Its mixed media and its various images are certainly hard to hold in a single thought. Composed in acrylic over aquatint and etching, it recapitulates the recurrent images of every other piece in the series and incorporates a number of glances at Johns' earlier work. Johns' subject has always been "perception," and this piece corresponds to the "learning through

vision and re-vision" to which this number of *On Common Ground* is dedicated.

Consider the Museum's account of the artist at work: "Johns began this series with leftover, rejected sheets from two editions of prints. He spent a month cutting and pasting elements and painting and drawing over them to come up with these thirteen works. They offer an almost musical sense of transition in tone yet remain linked thematically." In rather similar ways each Teachers Institute, as it links a school district and an institution of higher education, discovers and enacts the meaning of the "Understandings and Procedures"; seminar leaders, as they revise their understanding of content, pedagogy, and collegiality,

develop seminars that are neither university classes nor professional development programs; Fellows, as they re-vision their classroom work, write adventurous curriculum units; and the League itself, as it draws on the experience of the Yale-New Haven Teachers Institute and the National Demonstration Project, expands through a collaborative diversity of communities, institutions, and teachers.

The images in Jasper Johns' piece also have resonances for us. That American flag in the upper left-hand corner boldly echoes his well-known "Three Flags," which was our cover image on the very first issue of *On Common Ground*. It keeps before us
(continued on next page)

CONCLUSION

In 2009 the Yale-New Haven Teachers Institute continued its New Haven program with renewed teacher leadership and carried forward the Yale National Initiative to strengthen teaching in public schools, which is predicated on the effectiveness of the New Haven program.

Operating in New Haven for the thirty-second consecutive year, the Teachers Institute offered five seminars, two in the humanities and three in the sciences and mathematics. Its National Initiative also conducted seven national seminars through an Organizational Session in May and an Intensive Session in July, and held its Annual Conference in October. The Institute published and circulated widely a new number of the periodical *On Common Ground*. Also in 2009, *To Strengthen Teaching: An Evaluation of Teachers Institute Experiences* reported a strong correlation between Institute participation and teacher retention. Institute Fellows were almost twice as likely to remain in teaching in New Haven as were non-participants. The Institute's Web sites remained primary means of dissemination.

In these ways, the Institute assisted the New Haven school district's efforts to prepare and retain well-qualified teachers locally, while advocating the implementation of the Teachers Institute approach nationally.

APPENDIX

Committees and Councils of the Institute

University Advisory Council

Honorary Chairman

Howard R. Lamar

Co-Chairmen

Paul H. Fry

Gary L. Haller

Executive Committee

Dudley Andrew

Gary W. Brudvig

Stephen J. Pitti

Jules D. Prown

Cynthia E. Russett

W. Mark Saltzman

Sabatino Sofia

Thomas R. Whitaker

Members

Bruce D. Alexander

Sarbani Basu

David Bercovici

Murray J. Biggs

James Bundy

Jon H. Butler

Jill Campbell

Marvin Chun

Edward S. Cooke, Jr.

Martin D. Gehner

Langdon L. Hammer

Jonathan Holloway

Roger E. Howe

Richard C. Levin

Linda K. Lorimer

Amy Meyers

Mary E. Miller

Alexander Nemerov

Daniel E. Prober

Alice Prochaska

John M. Reynolds, III

John Rogers

Bruce M. Russett

Margretta R. Seashore

Ian Shapiro

Jonathan D. Spence

William B. Stewart

Deborah G. Thomas

C. Megan Urry

John P. Wargo

Robert J. Wyman

Karen Wynn

Michael E. Zeller

Kurt W. Zilm

School Representatives and Contacts for 2008-2009

Marisa A. Asarisi

Andrea Bailey

Ekaterina Barkhatova

Julia M. Biagiarelli

Douglas Bowman

Carol P. Boynton

Erica M. Bozzuto

Christine Caraglio

Maria Cardalliaguet

Gómez-Málaga

Ruth K. Chaffee

Zania Collier

Joseph A. Corsetti

Melissa A. Dailey

David De Naples

Tina Diamantini

Mia P. Edmonds-Duff

Jennifer B. Esty

Larissa Giordano

Jonathan Hill

Diane M. Huot

Christine M. Jones

Sam H. Jones

Pamela Kelley

Waltrina D. Kirkland-Mullins

Beth Ellen Klingher

Joel LaChance

Melanie L. Laputka

Roberta A. Mazzucco

Jimmy Lee Moore

Mary Lou L. Narowski

Lisa Marie Pereira

Nicholas R. Perrone

Norine A. Polio

Melissa Sands

Marialuca Sapienza

Dina K. Secchiaroli

David Simpson

Kenneth W. Spinka

Sara E. Thomas

Alicia Thompson

Huwerl Thornton

Chris J. Willems

Mary Jane Ziehl

Seminar Coordinators

Julia M. Biagiarelli

Joseph A. Corsetti

Melissa A. Dailey

Larissa Giordano

Huwerl Thornton

Fellows of the Yale-New Haven Teachers Institute, 1978-2009

| | | | |
|---|---|---|---|
| *23_Joyce Bryant Carolyn N. Kinder | 6_Justin M. Boucher Laura F. Fernandes | Karen S. Wolff | Erica M. Bozzuto |
| 17_Roberta A. Mazzucco Jean E. Sutherland | Marcella Flake Deborah E. Hare | 4_Marisa A. Asarisi Anna K. Bartow | James P. Brochin Jay M. Brown |
| 15_Maureen C. Howard | Kenneth B. Hilliard | Karen A. Beitler | John B. Buell |
| 14_Raymond W. Brooks Peter N. Herndon | Mary E. Jones Nancy Kasowitz | Matthew D. Cacopardo | Franklin C. Cacciutto Tarah S. Cherry |
| 13_Christine A. Elmore Geraldine M. Martin | Robert J. Moore Norine A. Polio | Belinda M. Carberry Marie P. Casey | Francisco Cintron Paul V. Cochrane |
| Pedro Mendia-Landa Grayce H. Storey | Gwendolyn Robinson Eddie B. Rose | Rosemary F. Claire Antonia M. Coughlin | Edward D. Cohen Sequella H. Coleman |
| 12_Harriet J. Bauman George Casey | D. Jill Savitt Michelle E. Sepulveda | Sheryl A. DeCaprio- Hershonik | Carol L. Cook Joseph A. Corsetti |
| Cassidy, Jr. Sandra K. Friday | Sara E. Thomas Kathleen Ware | Edward H. Fitzpatrick Gerene L. Freeman | Joseph R. Cummins David De Naples |
| Benjamin A. Gorman Henry A. Rhodes | Carolyn S. Williams | Patricia S. Gaffney- Ansel | William J. Derry Mara A. Dunleavy |
| 11_Stephen P. Broker Anthony F. Franco | 5_Lisa S. Alter Iole A. Apicella | Judith S. Goodrich Ida L. Hickerson | Robert P. Echter Mia P. Edmonds-Duff |
| Joanne R. Pompano | Stephen Beasley- Murray | Gary Highsmith Lee B. Hotchkiss- Durward | Ivory Erkerd Nancy N. Esposito |
| 10_William P. Coden Diana D. Doyle | Abie L. Benítez Henry J. Brajkovic | Christine Y. House Mary A. Howley | Heidi A. Everett- Cacopardo |
| Waltrina D. Kirkland Mullins | Elsa M. Calderón Maria Cardalliaguet | Stephen H. Kass Anne M. Kavanagh | Sophronia L. Gallop Frank J. Gallucci |
| Jane K. Marshall Cynthia H. Roberts | Gómez-Málaga Michael Conte, Jr. | Margaret M. Loos Cynthia McDaniels | Robert A. Gibson Larissa Giordano |
| Hermine E. Smikle Beverly B. Stern | John P. Crotty Francis J. Degnan | Cheryl E. Merritt Susan L. Norwood | Miriam G. Gonzalez Kristen J. Grandfield |
| 9_Francine C. Coss Joseph H. Lewis | Judith D. Dixon Jennifer B. Esty | Bonnie M. Osborne Joyce A. Patton | Camilla L. Greene Gail G. Hall |
| Carolyn C. Smith | Pamela M. Fowler Alan K. Frishman | Carol L. Penney Lynn S. Pensky | Diane M. Huot Sam H. Jones |
| 8_Mary Ellen Brayton Richard N. Canalori | June M. Gold Joan Z. Jacobson | Diane E. Platt Mary E. Riccio | Judith J. Katz Pamela Kelley |
| Patricia K. Flynn Lauretta J. Fox | Delci C. Lev Kathleen B. London | Anthony P. Solli Kenneth W. Spinka | Fred M. Kerson Zelda L. Kravitz |
| James F. Langan Joseph A. Montagna | Richard R. MacMahon Sheila M. Martin- | Gail A. Staggers Phyllis A. Taylor | Myrella Lara Felicia R. McKinnon |
| Joan A. Rapczynski Luis A. Recalde | Corbin Mary Lou L. Narowski | Maureen E. Taylor- French | Alice J. Mick Rose M. Mitchell |
| Yolanda U. Trapp | Elisabet O. Orville Valerie A. Polino | Lois R. Van Wagner Patrick A. Velardi | Michele L. Murzak Barbara C. Natale |
| 7_Carol L. Altieri Kelley A. Auringer | Angelo Joseph Pompano | Sloan E. Williams, III 3_Margaret D. Andrews | Kathleen R. O'Neil Deborah L. Peck |
| Val-Jean Belton Lorna S. Dils | Pamela M. Price- Anisman | Chris Angermann Kathleen L. Ayr | Nicholas R. Perrone Frances E. Pierce |
| Sean T. Griffin Jacqueline E. Porter | Lucia Rafala Burton R. Saxon | Ekaterina Barkhatova Deborah T. Barnes | Frances E. Pierce Tucker |
| Clinton Linda M. Powell | Dina K. Secchiaroli Susan S. Small | Marianne K. Basti Angela Beasley- | Soraya R. Potter Kathleen C. Rende |
| Jeanette R. Rogers Ralph E. Russo | Crecia C. Swaim Elizabeth T. Tortora | Murray Julia M. Biagiarelli | Lystra M. Richardson Clarence Roberts, Jr. |
| Barbara C. Trader Bethania H. Urena | Paul E. Turtola Michael A. Vuksta | Carol P. Boynton | Frances J. Sandahl Marialuisa Sapienza |
| Doris M. Vazquez Ruth M. Wilson | | | Martha Savage |

* years of participation

| | | | |
|-----------------------|----------------------|-----------------------|------------------------|
| *3_Ruth R. Schwartz | Jennifer Drury | Shannon L. Ortiz | Dana S. Altshuler |
| John A. Severi | William N. Duesing | Diana T. Otto | Charlene Andrade |
| Stephanie J. Sheehan | Lorna Edwards | Genoveva T. Palmieri | Christin E. Arnini |
| Richard A. Silocka | Willie J. Elder | Maria Pennachio | Valerie Elizabeth |
| Lewis L. Spence | Robert F. Evans | Nicolette W. Perrault | Arrington-Steele |
| Laura Spoerri | Peter L. Evans | Carol Ann Petuch | Marisa B. Atanasoff- |
| Thelma E. Stepan | Judith L. Falaro | Jane H. Platt | Frisk |
| Mary Stewart | Jennifer J. Flood | Malini Prabakar | Jonathan Aubin |
| Huwerl Thornton | Patrice M. Flynn | Laura F. Pringleton | Pamela R. Augustine- |
| Sherree L. Verderame | George E. Foote | Joyce P. Puglia- | Jefferson |
| John C. Warner | Linda F. Frederick- | Calarco | Naomi Ayala |
| Beverly A. White | Malanson | Judith A. Puglisi | Mary K. Baba |
| Sondra A. White | Jean C. Gallogly | James E. Ramadei | Barbara Bailey |
| Anthony B. Wight | Eugene V. Gandelman | Alexandra J. Reyes | Beryl I. Bailey |
| Sandra L. Willard | Marilyn A. Gaudio | David N. Reynolds | Catherine Baker |
| 2_Afolabi J. Adebayo | Marcia L. Gerencser | Margaret H. Roberts | Linda J. Baker |
| Joanna M. Ali | John K. Grammatico | Kelley N. Robinson | Kim Baldwin |
| Trudy A. Anderson | Pamela J. Greene | Grace Romano | Jane Baljevic |
| Irma E. Armstrong | Carmen Greenia | Stella J. Samuel | Silverio Barroqueiro |
| Sheldon A. Ayers | Richard B. Guidone | Roche A. Samy | Sara F. Barton |
| Terence Ayrton | Majorie E. Hankin | Farrell E. Sandals | Laura A. Batson |
| Matt P. Bachand | Leigh Highbridge | Lilly Ann M. | Karen M. Battle |
| Andrea N. Bailey | Thomas E. Holmes | Santorelli | Linn M. Bayne |
| Gerald A. Baldino | David B. Howell | Susan A. Santovasi | Judith Bellonio |
| Barbara J. Banquer | Gregory M. Huff | Nancy Schmitt | Beatrice G. Bennett |
| Sophie R. Bell | Kevin P. Inge | Kristi V. Shanahan | Jerome H. Bernstein |
| Chrissy A. Bieler | Caroline B. Jackson | Jessie O. Sizemore | Gale Billingsley |
| Robert L. Biral | Ronald J. Jakubowski | Creola Smith | Joseph P. Binkoski |
| Patricia M. Bissell | Eugene B. Johnson | Sharron Solomon- | Sarah E. Black |
| Jennifer Y. Blue | Janet M. Johnson | McCarthy | Jenifer J. Blemings |
| Medria J. Blue | Sally B. Kaczynski | Carolyn F. Stephenson | Rebecca Blood |
| Kristen A. Borsari | Alison B. Kennedy | Saundra P. Stephenson | Lou A. Bohman |
| Deborah L. Boughton | Jonathan L. | Amber Stolz | Rolanda A. Booker |
| Dana M. Buckmir | Knickerbocker | Lisa Galullo Strom | Joseph G. Borkowski |
| Michael L. Burgess | Melanie L. Laputka | Laura M. Tarpill | Christopher R. |
| Susan M. Burke | Crystal P. LaVoie | Nancy T. Taylor | Bostock |
| Maizie P. Butterfield | Jeanne Z. Lawrence | Pamela Tonge | Liza L. Bowen |
| Doreen L. Canzanella | Victor J. Leger | Leslie E. Troppe | Andrew Bram |
| Karen E. Carazo | Joyce M. Listro | Sheila H. Troppe | Rebecca S. Brown |
| Kristin Carolla | Linda L. MacNaughton | Wanda A. Velez | Susan D. Brown |
| Synia J. Carroll- | Holly S. Maio | Carol A. Viccione- | Zoila M. Brown |
| McQuillan | Theresa M. Matthews | Luce | Sherry Burgess |
| Daisy S. Catalan | Mary M.U. McGuire | Sheila Wade | Paulette J. Byer |
| Ruth K. Chaffee | Robert W. Mellette | Mnikesa F. Whitaker | Ronald E. Byrd |
| Margaret B. Clancy | Gary D. Mikolinski | Lula M. White | Christine E. Calvanese |
| Marcia A. Cohen | Pearl E. Mitchell | Joseph Wickliffe | Lucille Camera |
| John L. Colle | Matthew S. Monahan | Chris J. Willems | Immacolata Canelli |
| Cleo M. Coppa | Italo J. Mongillo | Barbara W. Winters | Robert J. Canelli |
| Giovanna M. | Jimmy Lee Moore | Robert J. Winters | Frank Caparulo |
| Cucciniello | Jon J. Moscartolo | Barry Yearwood | Tina P. Caplan |
| Melissa A. Dailey | Sharon L. Mullen- | Penny K. Zhitomi | Madeline L. Carloni |
| Iris R. Davis | Reynolds | Florence Zywockinski | Eric Carlson |
| Jean Q. Davis | Sandra L. Nash | 1_Leslie Abbatiello | Julie A. Carthy |
| Sandra I. Davis | William F. Natale | Patricia I. Abdur- | Toni D. Cates |
| Wendy Decter | Dora Odarenko | Rahman | Martha C. Cavalieri |
| Eileen M. DeMaio | John M. Oliver | Josephine F. Ablamsky | Elizabeth S. Celotto |
| Peter W. DePino | Shannon E. Oneto | Fred J. Acquavita | Jennifer Chisholm |
| Matthew A. Dooley | Maureen F. Onofrio | Amy Aledort-Lehre | Annette B. Chittenden |

* years of participation

| | | | |
|-----------------------|------------------------|-----------------------|------------------------|
| *1_Alina Chrostek | Shirley Ann Goldberg | Ralph L. Lambert | James Robert Osborne |
| David A. Cicarella | Michael Golia | Nicole M.LaMontagne | Donnamarie Pantaleo |
| Vanessa E. Clayton | Kathleen A. Gray | John K. Laub | Theodore Parker, Sr. |
| Rebecca Cochrane | Steven F. Gray | Maria D. Laudano | Jennifer M. Parr |
| Rose B. Coggins | Bonnie S. Greene | Evelyn F. Lawhorn | Zakia D. Parrish |
| Timothy F. Coleman | Phyllis S. Grenet | Carlos A. Lawrence | David L. Parsons |
| Zania Collier | Olivia J. Grice | Thomas C. Leaf | Anthony Pellegrino |
| Frances F. Conte | Susan S. Gudas | Nehemia Levin | Diana I. Pena-Perez |
| Elizabeth J. Corraro | Michael S. Guzzio | Paul Limone | William Perez |
| David Coss | Glen A. Hagemann | Marilyn Lipton | Joshua E. Perlstein |
| Cortney R. Costa | Gwendolyn F. | Donna M. Lombardi | George C. Peterman |
| Nancy P. Cowdin | Hampton | Mattie H. Long | Doreen S. Peterson |
| Phyliss Cummings- | Kathy R. Harris | Priscilla L. Luoma | Sylvia C. Petriccione |
| Texeira | Michael A. Harris | Roisin A Macdonald | Amy L. Piccirillo |
| Elisha M. Danford- | Todney Harris | Amelia M. Macklin | Christine Picon-Van |
| Brookover | Merrie N. Harrison | Anthony F. Magaraci | Duzer |
| Dyanne D'Angelo | Carol S. Heidecker | Ann G. Magda | Dina Pollock |
| Fallon L. Daniels | Elizabeth C. | Bradley R. Magrey | Diane E. Powers |
| Rosalind A. Davidson | Henderson | Joan A. Malerba-Foran | Diane L. Pressler |
| Raymond S. Davie | Susan Holahan | Victoria B. Mallison | Nicole D. Primeau |
| Celeste Y. Davis | Kenneth R. Hopkins | Dianne C. Marlowe | Deirdre Prisco |
| Marvel K. Davis | David Howe | Delores Marshall | Christi L. Quick |
| Maxine E. Davis | Charlotte H. Hylton | Darla Martinez | Helaine R. Rabney |
| Karen de Fur | Dwight H. Inge | Katherine D. Massa | David P. Raccaro |
| Jose A. Delgado | Ruth E. Iosue | Michele M. Massa | Joseph Raffone |
| Margaret A. DeMarino | Kacey L. Jackson | Luis E. Matos | Scott P. Raffone |
| Tina Diamantini | Deborah A. James | Erena Mazou-Skorik | Paula M. Ranciato |
| Eva de Lourdes Diaz | Nancy S. James | Bradley H. McCallum | Rosey H. Rawle-Pitter |
| Caitlin M. Dillon | Edwina E. Johnson | Mary Ellen McDevitt | Julie Ann Reinshagen |
| William M. Dillon | Elisabeth Johnson | Sherrie H. McKenna | Gwendolyn I. |
| Fred L. DiTallo | Theodore Johnson | Janet L. Melillo | Richardson |
| Mary Donahue | Elizabeth K. Johnston | Thomas Merritt | Maxine Richardson |
| John J. Donahue | Sunny S. Jonas | Amy Migliore-Dest | Verdell M. Roberts |
| Devra L. Doolin | Christine M. Jones | Kevin S. Miller | Kenneth P. Rogers |
| Silvia D. Ducach | Lillie M. Jones | Rosemarie Crocco | Yoselin Roman |
| Maria A. D'Ulisse- | Paul M. Jones | Mongillo | Kathleen Z. Rooney |
| Cupo | Yolanda G. Jones- | Mary B. Moore | Kathleen M. Ryerson |
| Lucretia F. Edlow | Generette | Cheryl Morgan | Janna Ryon |
| Mindi R. Englart | Leslie Grace Judd- | Winnifred E. Morgan | Andrea H. Sadick- |
| Marie I. Fadus | Paier | Patricia Morrison | Brown |
| Jannine L. Farrell | Kathleen V. Jurczak | Bernette A. Mosley- | Melissa Sands |
| Jeffry K. Farrell | Bhim S. Kaeley | Dozier | Anita G. Santora |
| Leslie Fellows | Julianne K. Kaphar | Barbara A. Moss | Jameka K. Sayles |
| Carolyn E. Fiorillo | Valbona Karanxha | Maryanne A. Muldoon | Helen H. Sayward |
| Margaret E. Flynn | Nancy M. Kelly | Pearlie P. Napoleon | Elizabeth A. Scheffler |
| Ann E. Fogarty | Jennifer A. Kennedy | Rodouane Nasry | Eva M. Scopino |
| Deborah A. Fonda | Marlene H. Kennedy | Diane M. Nichols | Virginia Seely |
| Dorothy Forbes | Wendy J. Kimball | Patricia A. Niece | Michele Sherban- |
| Erica M. Forti | Beth Ellen Klingher | Thomas P. O'Connor | Kline |
| Anne R. Fraulo | Cheree B. Knight- | Joseph J. O'Keefe | Sylvia J. Sherertz |
| Donna Frederick- | Camara | Rita M. O'Keefe- | Stephanie Glass |
| Neznek | Alicia A. Koziol | Steele | Shteirman |
| Christina M. Frodsham | Margaret Krebs- | Marcela A. Oliveira- | Russell H. Sirman |
| Jeremiah Gadsden | Carter | Antunovich | Alice R. Smee |
| Gretchen L. Gallagher | Elizabeth I. Kryszpin- | Lisa A. Omark | Barbara K. Smith |
| William J. Garraty | Johnson | Albert A. Orsillo | Gary P. Smith |
| Monique Y. Gisser | Susan L. LaForest | Laura E. Ortiz-DeOrue | Geoffrey P. Smith |

* years of participation

*1_Patrick J. Snee
Penny Snow
Marc Anthony Solli
Andrea B. Sorrells
Hoyt G. Sorrells
Mary R. Sorrells
Kathleen M. Spivack
Martha Rose Staeheli
Shannon L. Stevens
Maria Stockmal
Steven R. Strom
Thomas D. Sullivan
Debbie D. Sumpter-
Breland
Melissa Talarczyk
Jyo K. Teshima
Anthony B. Thompson
Bernice W. Thompson
Frances Tilghman
Donna L. Timmone
Kathleen E. Torello
Trisha A. Turner
Toni L. Tyler
Susan S. Van Biersel
Annette Vetre
Michael D. Vollero
Douglas Von Hollen
Anthony F. Vuolo, Jr.
Donna A. Wade
Leszek H. Ward
Joseph Weber
Anne M. Wedge
Carol A. Wells
Concetta F. Welton
Kristin M. Wetmore
Willie J. Whipple
Juanita W. Williams
Eleanor G. Willis
Cynthia E. Wilson
Johanna M. Wilson
Melanie Wolf
Carol A. Wong
Cynthia Ann Wooding
Kimberly Workinger
Martha T. Youngblood
Jessica J. Zelenski
Madeline M. Zelonis
Stephanie Zogby
Judy Zurkus

* years of participation

Seminar Leaders of the Yale-New Haven Teachers Institute, 1978-2009

| | |
|-------------------------|----------------------|
| *13_ Thomas R. Whitaker | Mark R. Cullen |
| 8_ Bryan J. Wolf | Charles T. Davis |
| 7_ Traugott Lawler | John P. Demos |
| Robin W. Winks | Eric R. Dufresne |
| 6_ Robert A. Burt | Edward H. Egelman |
| 5_ Jules D. Prown | Richard W. Fox |
| Rogers M. Smith | Arthur W. Galston |
| 4_ Paul H. Fry | Gordon T. Geballe |
| Roberto González | Alessandro Gomez |
| Echevarría | Joseph W. Gordon |
| William Kessen | Robert B. Gordon |
| John P. Wargo | Laura M. Green |
| 3_ Jean-Christophe | Langdon L. Hammer |
| Agnew | Ange-Marie Hancock |
| Kent C. Bloomer | Valerie Hansen |
| Cynthia E. Russett | Dolores Hayden |
| Robert B. Stepto | Roger E. Howe |
| William B. Stewart | Amy Hungerford |
| James A. Winn | Robert D. Johnston |
| 2_ Dudley Andrew | Helen B. Lewis |
| Sarbani Basu | Pericles Lewis |
| David Bercovici | Ellen Lust-Okar |
| Michael G. Cooke | Maurice J. Mahoney |
| Sandra H. Ferdman | J. Michael McBride |
| Comas | Ross C. Murfin |
| James T. Fisher | Charles Musser |
| Martin D. Gehner | Alvin Novick |
| Howard R. Lamar | Annabel Patterson |
| Lawrence G. Manley | Patricia R. Pessar |
| Mary E. Miller | Brigitte M. Peucker |
| Richard S. Miller | Stephen J. Pitti |
| Sylvia Molloy | Daniel E. Prober |
| Alexander Nemerov | Bruce M. Russett |
| W. Mark Saltzman | Marni A. Sandweiss |
| Margretta R. Seashore | Harold W. Scheffler |
| Nicolas Shumway | Oswald J. Schmitz |
| Sabatino Sofia | Robert Schultz |
| Karl K. Turekian | Ian Shapiro |
| Charles A. Walker | H. Catherine W. |
| Peter P. Wegener | Skinner |
| Robert G. Wheeler | Ronald B. Smith |
| Robert J. Wyman | James A. Snead |
| 1_ Ronald C. Ablow | Frederick J. Streets |
| Walter R. Anyan, Jr. | Robert H. Szczarba |
| Robert E. Apfel | William G. Thalmann |
| William R. Bennett, Jr. | Alan Trachtenberg |
| Victor Bers | Paul E. Turner |
| Richard H. Brodhead | Henry A. Turner, Jr. |
| Gary W. Brudvig | Maurice O. Wallace |
| Shelley Burt | Robert B. Westbrook |
| Jill Campbell | Werner P. Wolf |
| Janice Carlisle | |
| Laurence A. Cole | |
| Edward S. Cooke, Jr. | |
| Robert M. Cover | |

* number of seminars led

SELECTED BIBLIOGRAPHY

Institute Publications

- Centers for Professional and Curriculum Development*. New Haven: Yale-New Haven Teachers Institute, 1996.
- “The Collaborative Spirit in Historical Perspective.” *On Common Ground*. Number 2, Summer 1994.
- Curriculum Units by Fellows of the Yale-New Haven Teachers Institute*. 192 Volumes, 1978-2009.
- “Diversity, Partnership, and Community.” *On Common Ground*. Number 7, Fall 1996.
- “Educational Organization and Change.” *On Common Ground*. Number 6, Spring 1996.
- “Establishing Institutes Throughout the Nation,” *On Common Ground*. Number 10, Spring 2005.
- Guides to Curriculum Units Written by Institute Fellows*, 1978-2009.
- Index of All Curriculum Units*, 1978-2009. New Haven: 2009.
- “Learning Through Vision and Re-Vision.” *On Common Ground*. Number 13, Spring 2009.
- “Partnership and the Arts.” *On Common Ground*. Number 5, Fall 1995.
- “Partnerships in Science and Technology.” *On Common Ground*. Number 4, Spring 1995.
- Policies, Procedures, and Organizational Structure of the Yale-New Haven Teachers Institute*. Endorsed by the Yale Corporation, September 1994.
- A Progress Report on Surveys Administered to New Haven Teachers*, 1982-1990, with Preface by Gita Z. Wilder of the Educational Testing Service. New Haven: 1991.
- Report on the 1991 Conference on University-School Collaboration: Preparing Teachers and Curricula for Public Schools*. New Haven: 1992.
- The Teachers Institute Approach: A Manual Containing the Steps, Understandings, Procedures, and Timeline for Establishing and Maintaining a Teachers Institute*. New Haven: 2007.
- “Teachers Institutes for the Nation.” *On Common Ground*. Number 12, Spring 2008.
- Teaching in America: The Common Ground; A Report of the Yale-New Haven Teachers Institute*. New York: The College Board, 1985.
- Teaching in New Haven: The Common Challenge*. New Haven: 1991
- To Motivate My Students: An Evaluation of the National Demonstration Project of the Yale-New Haven Teachers Institute*. Rogers M. Smith, The University of Pennsylvania, 2004.
- To Strengthen Teaching: An Evaluation of Teachers Institute Experiences*. Rogers M. Smith, The University of Pennsylvania, 2009.
- “Urban Partnerships.” *On Common Ground*. Number 9, Fall 2001.
- “Who We Are, Where We’re Going.” *On Common Ground*. Number 1, Fall 1993.
- “The World of Work.” *On Common Ground*. Number 3, Fall 1994.
- “The Yale National Initiative: Making Connections.” *On Common Ground*. Number 11, Winter 2007.
- Yale National Initiative to Strengthen Teaching in Public Schools*. New Haven: 2004.

Articles

- Vivian, James R. “Empowering Teachers as Colleagues.” *In College-School Collaboration: Appraising the Major Approaches*. Ed. William T. Daly. San Francisco: Jossey-Bass, 1985, pp. 79-89.
- _____. “Issues in Establishing and Developing an Educational Collaboration: The Yale-New Haven Experience.” *Education and Urban Society* 19.1 (1986): 59-76.
- _____. “Partnerships and the Community.” *In Our Mutual Estate: School/College/Business Partnerships*. Purchase: State University of New York, 1987, pp. 43-45.
- _____. Testimony before the Committee on Education and Labor, United States House of Representatives. *Hearings on the Twenty-First Century Teachers Act, Held in Los Angeles, CA, March 3, and Washington, DC, March 15, 1990*. 101st Cong., 2nd Sess., March 3 and March 15, 1990. Washington: Government Printing Office, 1990, pp. 306-337.
- _____. “Yale University: The Yale-New Haven Teachers Institute.” *In School-College Collaborative Programs in English*. Ed. Ron J. Fortune. New York: Modern Language Association, 1986, pp. 14-2

ACKNOWLEDGEMENTS

Numerous individuals and foundations have made gifts and grants to the Endowment Fund for the Yale-New Haven Teachers Institute. The 2009 Institute programs were supported in part also by grants from the Howard Hughes Medical Institute and the National Science Foundation. The New Haven Public Schools, Yale's partner in the Institute, has supported the Institute's program in New Haven continuously since its inception.

