

**YALE-NEW HAVEN TEACHERS INSTITUTE**

**ANNUAL REPORT**

**1989**

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**Yale-New Haven Teachers Institute  
1989 Annual Report**

The present report describes the organization and operation of the Institute's 1989 program for the New Haven teachers who participated as Fellows. It documents the Fellows' and seminar leaders' responses to the program by quoting at length from the evaluations they wrote at the conclusion of their participation. In addition, the report summarizes recent progress in the development, evaluation, dissemination, and finance of the Institute.

Beginning in the fall of 1988, the teachers who served as School Representatives and Institute Coordinators canvassed other teachers in each New Haven middle and high school to determine the subjects they wanted Institute seminars to address in 1989. The Representatives and Coordinators met together at least monthly, and the Representatives communicated individually with a contact in the Coordinators group during the periods between meetings. The Coordinators met weekly with the director, as they do throughout eleven months of the year, to compile and discuss the results of the canvass and to make final plans for the seminars the Institute would offer in 1989. This process resulted in the Institute organizing seven seminars in response to teachers' stated interests in and needs for professional and curriculum development.

With support from the Carnegie Corporation of New York the Institute offered two seminars in the sciences:

"Crystals in Science and Technology,"  
led by Werner P. Wolf,  
Professor of Physics and Professor  
and Director of Undergraduate Studies in Applied Physics

"Electrical Technologies: Light at Night, Microelectronics,  
Superconductivity,"  
led by Robert G. Wheeler,  
Professor of Applied Physics

The five seminars in the humanities, which were supported by the National Endowment for the Humanities and the DeWitt Wallace-Reader's Digest Fund, and the faculty members who led them were:

"American Communities, 1880-1980,"  
led by James T. Fisher,  
Assistant Professor of American Studies

"Poetry."

led by Traugott Lawler,  
Professor of English

"Family Ties in Latin American Fiction,"

led by Sylvia Molloy,  
Professor of Spanish

"Detective Fiction: Its Use as Literature and as History,"

led by Robin W. Winks,  
Professor of History

"America as Myth,"

led by Bryan J. Wolf,  
Director of Graduate Studies  
and Associate Professor of American Studies

Acting in its capacity as the Institute's course-of-study committee, the University Advisory Council on the Teachers Institute met on March 10 and approved these seven Institute offerings for 1989. By their action, the Institute can certify Fellows' course of study to institutions where they may be pursuing an advanced degree. Also, as described below, Fellows will now receive "continuing education units" upon successful completion of the Institute.

Having worked, then, with teachers in their schools during the preceding months, the Institute Representatives met on January 3 to pick up copies of the Institute application form, brochure, and seminar descriptions, and to discuss how they would proceed in working with prospective applicants to the Institute. The Coordinators conducted a mock review of Fellows' applications, which was intended to demonstrate what the Institute seeks for teachers to do in completing their application forms. The Coordinators and Representatives then made plans to hold an Institute "open house" in each school for teachers who were interested in learning more about the Institute and its 1989 offerings. These "open houses" were held throughout the period until the application deadline, and several were conducted by teachers' taking a day of professional leave for this Institute work directly in their own schools. One of the numerous ways in which the New Haven Public Schools support the work of the Institute is by providing a pool of professional days on which the teachers who are Representatives and Coordinators may draw in order to devote more time during the regular school day to their Institute responsibilities.



The Institute Coordinators also conducted an information session in January and an application workshop in February for any New Haven teachers of grades 3-5 who might be interested in taking part in the Institute. We decided to include several elementary school teachers as Fellows this year, on a pilot basis, in the Institute's regular offerings for middle and high school teachers. In this way we hoped to learn directly from a representative group of elementary school teachers what they believed they would gain if the Institute were, as a matter of general policy, to be open to all New Haven teachers of grades 3-12. Also, in this way middle and high school teachers participating in the program could determine whether the inclusion of elementary school teachers might enhance or detract from their own experience in the seminars.

By the application deadline of February 10, which occurred immediately before the school vacation, the Institute Representatives and Coordinators had collected applications from the New Haven teachers who were prepared to commit themselves to participating fully in the Institute and who described through their applications how they would develop curriculum units that were related both to one of the seminar subjects and to school courses they teach. These applications were reviewed by three groups.

The subject supervisors and heads of school departments reviewed the applications of the teachers they supervise to determine that each proposal was consistent with and significant for the teacher's own development and for school curricula. At the same time the Institute seminar leaders read the applications to examine their relationship to the seminar subject. This afforded each seminar leader the opportunity, as well, to tailor or enlarge the bibliography for the seminar so that it would address all of the specific interests of the teachers who actually were applying to the seminar. By conducting their reviews in mid- to late-February, the school administrators and seminar leaders were able to provide information to the Coordinators on any problematic applications.

The Institute Coordinators themselves held their first reading of Fellows' applications between February 21 and February 23, when they met to identify those applications which they regarded to be problematical. Through these means, the Institute seeks to ensure that teachers apply to seminars which are most appropriate for their stated interests and applicable to the school courses they teach. After their first reading of the applications and with the information they received from the administrators and seminar leaders, the Coordinators, assisted by the school Representatives, then contacted those applicants who needed to revise or expand their proposals. On February 28 the Coordinators held a last meeting with the school Representatives to discuss any remaining

problems and the final shape of the year's seminars. The Coordinators then met all day on the next day, again by taking professional leave, for their final reading of and decision on the applications. At that time, they considered the findings of the administrative and faculty reviews and supplementary information received from some applicants, and made their recommendations to the director about which teachers the Institute should accept.

As a result, on March 8 the Institute accepted as Fellows seventy-five New Haven teachers, fifty-seven in the humanities and eighteen in the sciences. This represents a significant increase in humanities Fellows over the number who applied and were accepted in 1988. In furtherance of a central aim of the Institute to involve as Fellows a high proportion of New Haven teachers, almost one-half (43%) of these teachers were participating in the Institute for the first time. With respect to the pilot program, six elementary school teachers were accepted and their applications fortunately were distributed among five different seminars. In this way, what we might learn from their participation would not depend on the experience of any particular seminar.

At the organizational meetings of the seminars which were held on March 14, each seminar leader distributed a general bibliography on the seminar subject and discussed with Fellows the syllabus of readings which he or she proposed the seminar would consider together. The Fellows described the individual curriculum units that they had indicated provisionally on their applications they planned to develop. This afforded all members of each seminar an overview of the work they were undertaking together and of the projects they would be pursuing individually. The bibliographies were intended both to introduce the seminar subject generally and to guide Fellows as they began research on their curriculum units. As one Fellow wrote in his evaluation, the seminar leader "created a reading list that encompassed all the participants' interests as well as introducing the aficionados to many new authors." The Fellows thus began to read widely in the seminar subject as well as to refine their specific unit topics.

In their evaluations several Fellows commented on the demanding nature of the reading they did. One wrote: "The amount of reading (600-700 pages a week) was a challenge, but I loved the seminar. It was one of the best I've ever been part of." Another Fellow said: "I enjoyed very much the readings, even though it was too much material for a short time. The Frederick Douglass story was most touching: I think I shall remember it forever." A third Fellow wrote: "Seminar meetings were well spaced, allowing adequate time for required readings. The assigned readings, though plentiful, were appropriate and necessary to fully understand the content of the meetings."

Seminar leaders also commented on the reading Fellows did. One wrote: "I believe that all Fellows read extensively in order to prepare their units, though no doubt they also drew upon previous reading as well." A second seminar leader said:

Discussion was lively, the members were quick, alert, and well-informed, and almost always had done the reading or a major portion of it. Since we read two books per meeting, this imposed a heavy obligation upon them, an obligation which, as a group, they met fully. As a result, I think we achieved a happy balance between the overall aims of the seminar and the individual unit projects.

Before submitting on April 11, the day of the second seminar meeting, a refined unit topic and list of readings to research that topic, each Fellow also met individually with his or her seminar leader to discuss their projects. The Institute requires that Fellows schedule a minimum of two such conferences during the unit writing period; many Fellows, though, meet more frequently with the seminar leader. Two seminar leaders in the humanities wrote about how they handled these individual meetings:

I met individually with all Fellows on three occasions, and with a few more often, to discuss bibliography and strategy. These one-on-one meetings are essential to the spirit of the enterprise and are fundamental to good morale. Since I asked everyone to come, one might say that I initiated the contacts, though I left it to the Fellows to propose specific times. The result was well-written units, since we often discussed writing, and especially organization, in our individual meetings.

I had the usual round of meetings right at the beginning with everybody in my office. I urged people later on to have a second meeting and I insisted that that should take place on their turf, that is to say, in their school, in their classroom, or wherever. Not everybody took me up on that, but I went to the schools and the classrooms of approximately half the Fellows, and in two cases I spent an hour or so observing an actual class. And I had a few other individual meetings or telephone conversations with members of the seminar, some initiated by them and some by me. It was very good for me to go to the schools and be in people's classrooms. It helped me get to know them better and to understand the problems that face them better.

Two seminar leaders in the sciences wrote:

The individual meetings with the Fellows were mostly arranged after a seminar. As expected the meetings refined understandings and discussed specific reference material. All of the Fellows initially planned units which together we found too broad. Thus much of the time we spent limiting the scope of the units.

The individual meetings with Fellows were generally very good, I think. I gave them written comments on each draft they had given me to read, and I reviewed my suggestions with them. I tried hard to make these meetings collegial discussions and, on the whole, I think they went well.

When Fellows attended the second seminar meeting they presented their revised unit topics and began to discuss the common readings. During the period before the regular weekly meetings of the seminar began on May 16, Fellows continued their reading, both preparing in advance for the upcoming seminar discussions and working toward a brief prospectus of what their final units would contain, which was submitted on April 25. Thereafter Fellows continued to develop their units in stages with a first draft submitted on May 30 and a second draft on July 5. The weekly meetings of the seminars continued through July 18, after which Fellows had two weeks to complete work in order to submit their final units by the end of July.

Institute Guidelines and Mechanical Specifications for preparing curriculum units outline the Institute writing process, which has five steps for Fellows' formulating, reformulating, and enlarging their individual units. As in past years, many Fellows commented on the value of preparing their units in this way. One wrote: "As for the writing process, I feel the way it is layed out with its prospectus, 1st draft, 2nd draft...is great. It allowed me the natural building up of a well-thought-out/in-depth unit." Another said: "Writing the unit as well as having to stick to definite deadlines have helped me to stop procrastinating as I've done in the past." Other Fellows wrote:

When the writing began, having the deadlines for drafts were especially helpful. It was beneficial for me to have had the Unit guidelines available because they were specific and thorough in regards to the expectations of each draft.

The structure for writing the unit was extremely valuable and I found the words flowed out of me. I'd like to have been able to keep working on my unit. It still needs work and I am finding more materials that I wish I'd included. I understand that a deadline is necessary. Most importantly, I've learned that I

enjoy this kind of writing, with other teachers as audience, and am looking forward to next year's Institute.

Originally I was less than enthusiastic about writing my unit, but as it began to unfold naturally I became very much involved. I am also glad that my seminar leader did not spend excessive time during class discussing our projects. His individual comments and suggestions provided excellent guidance.

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 which were held after school. As we have done in recent years, the Coordinators decided to invite both current and prospective seminar leaders to deliver talks. In this way all the Fellows gain either an overview or an example of the work their colleagues are pursuing in other seminars, while learning as well about seminars in which they might choose to participate in a future year. The talks which University faculty members gave were: "Genetics and Disease," by Dr. Maurice J. Mahoney, Professor of Human Genetics; "Artificial Illumination (light at night)," by Robert G. Wheeler, Professor of Applied Physics; "More Than Meets the Eye," by Duncan Robinson, Director of the Center for British Art; "The American Revolution as Myth," by Bryan J. Wolf, Associate Professor of American Studies; and "The World's Largest University: the U. S. National Parks System," by Robin W. Winks, Randolph W. Townsend, Jr., Professor of History.

Fellows' comments about the talks were more than usually favorable. As one Fellow wrote: "I even enjoyed several lectures that were given at the start and I usually don't like them at all." Many Fellows called the talks "stimulating," "thought provoking," or "a lot of valuable information." One Fellow wrote: "All the talks were informative and helped to expand our knowledge base. They also served to whet our appetite so we can inquire further into any topic of interest." Another said:

From my perspective, the Institute seemed to run very smoothly this year. I heard nothing in the way of complaints from any of the participants I encountered. The talks were the best in the history of the Institute--in my opinion. (Though I'm still not really behind the idea of the talks.)

As a result of the suggestions Fellows made in their evaluations in 1988--and because an unusually high proportion of this year's Fellows were taking part in the Institute for the first time--the Institute scheduled a general discussion on curriculum unit writing on May 9, the week before the regular meetings of the seminars began. The session had



a two-fold purpose: to present Institute unit Guidelines to first-time participants and to explore as well the approaches returning Fellows had taken to writing a curriculum unit. Thus the meeting began with two group sessions. In one, which was intended for first-time participants but was open to all Fellows who wished to attend, Institute Coordinators presented a detailed explanation of the unit Guidelines and procedures.

In a second session, also led by teachers who are Institute Coordinators, returning Fellows shared with each other their approaches to writing a curriculum unit and what, in the main, they felt they had gained previously by writing units. There were four themes in the Fellows' discussion: the particular value of teaching a topic and materials which the teacher personally has developed; the way in which curriculum units can provide information which is missing or out-of-date in textbooks; the advantages of developing a unit through the Institute's process, which can later be used by teachers working on their own on other topics in the curriculum; and the way in which most teachers continue to develop their units even after the conclusion of each year's program. In the second portion of the May 9 meetings each seminar convened for discussions in smaller groups of the writing they would undertake and any issues of special relevance to individual seminars. In their evaluations, some Fellows spoke of how the seminar contributed to unit development. One wrote:

Each of us was able to develop units that will be excellent teaching tools in the coming school year, thanks to our discussions and the books read during the seminar. By discussing units in progress we all gained familiarity with each other's ideas, and thereby we all feel comfortable teaching the genre to our students using our own ideas as well as those of other Fellows. In all, this year's seminar was hugely positive and extremely rewarding.

A seminar leader in the sciences described the weekly meetings:

As Fellows arrived, there was quite a lot of informal discussion about their own units and materials they had found. This discussion continued briefly in a more formal way once everyone was present, often led by the Coordinator, who took her assignment seriously and did a very good job.

There are several distinct advantages to the Institute schedule which overlaps the school year by at least three months. In their evaluations, three Fellows spoke, for example, about how they were able to try out in their own classrooms material they were studying:

It helped me a lot already in teaching this material to this past year's group. It helped me understand better ways to present and review various concepts, e.g. resistance as part of conduction vs. insulation and then again resistance in terms of circuitry.

Every Wednesday [after Institute talks and seminars which are held on Tuesdays] from March until June, I'm bursting with enthusiasm as I share the previous day's experience with faculty and students alike. The Institute revitalizes my teaching energies and enables me to perceive new ideas from various vantage points.

As I worked on my unit and tried some of the plans in school, I realized that this is an excellent way to interest and motivate the low level students that I teach. Because of the insights I gained from writing this curriculum I feel I can and will expand my knowledge and use of other than book type materials for the students. I feel my horizons have been expanded as far as what is "appropriate" material to use in a classroom. Now I feel that appropriate simply means what works for a particular class.

To review the progress of the seminars and the Institute's expectations of participants, the director met at least monthly with the seminar leaders as a group. This was especially important in 1989 because four of the seven seminar leaders were leading a seminar for the first time. In addition, at least one of the Coordinators participated as a Fellow in each Institute seminar. They met with the director weekly on the day after the seminar meetings. By meeting as a group the Coordinators could discuss each of the seminars, maintain an overview of the program's progress, and help to resolve any problems that arose. One Fellow commented on the Coordinator's role directly within the seminar: "It is important to note that the seminar Coordinator was extremely congenial and helpful. Her guidance and presence created an atmosphere conducive to productivity." Thus the Coordinators assisted with the smooth operation of the seminars, providing teacher leadership without diminishing the collegial rapport within the seminar.

The Institute continues, as it has done from its inception, actively to encourage collegiality within each seminar; that is, to foster professional relationships among educators who teach the same subjects and whose respective contributions to the work of the Institute are equally important. In their evaluations, several Fellows commented on the role of the seminar leaders in establishing collegiality within the seminar. One wrote: "Under the able direction of [the seminar leader], participants were encouraged to share their ideas in a non-judgemental and relaxed intellectual environment." Others said:

My seminar leader presented his experience level as that of "novice" and created a peer-like atmosphere among us, further developing a sense that we were all capable of gaining confidence in this subject matter. [The seminar leader] was a marvelous model for me. His enthusiasm for the subject and his real interest in our reactions demonstrated important strategies for teaching and learning.

Our seminar leader is very knowledgeable in this area....I felt great satisfaction after each session. She accepted our opinions and criticisms of authors and gave us her opinion...not as a leader, but as a member of our group. The experience was very rewarding.

[The seminar leader] never made any of the group feel inferior, and he happily accepted different interpretations from our readings which he had not thought of...always with a pleasant smile and a "that's interesting" comment. After my first meeting with the group, I felt that I was out of place because so many of the group knew much more about the seminar topic than I did. However, I stayed and became an enlightened member of the group and really enjoyed myself. In fact I looked forward to our meetings just so I could enhance my knowledge and partake in our lively discussion.

Another Fellow spoke of collegiality in a larger sense when she wrote: "Just being a part of the Yale family is a plus within itself."

Fellows also spoke about what they gained from working with the other teachers in their seminar. One wrote: "The other participants in the seminar provided open and informative dialogue and lively discussion on a variety of topics and suggested readings." Other Fellows wrote:

Another aspect of the Institute which I found both helpful and enjoyable was interaction with other teachers in my seminar. Those who had previous experience in the Institute were extremely helpful to me in the process of writing my unit, and all teachers offered input, constructive criticism and positive comments.

It also affords an opportunity for teachers to share ideas and talk about ways to improve and unify education in New Haven. It was interesting to me, to talk with other teachers and discuss ways they are getting information across to their students.



The seminars, are, in my opinion, the best part of the Institute. The exchange of ideas in this informal setting always energizes me and motivates me to research new ideas or try new techniques in my classroom. We teachers have much to learn from one another.

I knew almost all the other teachers in my group, either from last year or from my school. They were all cooperative and willing to share information and ideas. They were also quite pleasant to be around and I generally enjoyed the entire atmosphere of the group. [The seminar leader] and the other teachers together created a creative and productive seminar this year.

The contact that I had with teachers from other schools who teach at different grade levels is also beneficial to me in my teaching. I am now aware of others' expertise and interests and these teachers are all possible resources for me. The sharing of ideas that is a part of the Institute is most important to me and helps me continue to grow as a teacher. The benefit of this in my classroom activities is obvious.

I liked being treated as if I mattered--the comfortable chairs, the coffee--and the chance to talk to other teachers. Teachers will act like professionals when treated like professionals.

As they have done in past years, Fellows particularly praised the seminar leaders for all that they contributed to the Institute experience. One Fellow wrote: "My seminar leader was vibrant and enthusiastic and his enthusiasm was contagious and showed throughout each session making America come alive." Other Fellows said:

As the Institute progressed, I was very pleased with my seminar leader. He kept things down to earth and was concerned about each individual in the group. If he were to teach another topic I would certainly join his group again.

[The seminar leader] did an outstanding job of running our seminars. He is so knowledgeable and so enthusiastic. He really encourages you a great deal and helped so much in developing my curriculum unit.

Our seminar leader was enthusiastic, well versed in the general subject and very accomodating to the Fellows. He was available for conferences and, in fact, visited every Fellow's school for the first conference. The seminar readings were adjusted to

better suit the Fellows' needs; the books were ordered and available.

He still has that "newness" that makes him very energetic and interesting. He has tremendous knowledge of the subject matter and makes everyone feel comfortable when in discussions.

I found [my seminar leader] very sensitive to the needs of the class and very helpful with my unit.

My seminar leader was great--kind and generous with his time. He is a superb teacher but also thoughtful about the feelings of his group. I look forward to another one next year.

My seminar was delightful! The seminar leader was interesting and interested in us. Even though this was her first time leading an Institute seminar, she was well-prepared and more than willing to help us in doing our units. For the first time in many years I was disappointed when the seminar was over. I would like very much to work again with [the seminar leader].

The seminar was an extremely rewarding experience. I attribute this to the seminar leader. She taught an area I was not versed in without ever making me feel inadequate or ignorant.

[The seminar leader] is a stimulating, exciting and humane seminar leader, and I found the whole experience to be valuable and indeed wonderful.

The seminar leader provided a fine experience for participants. His manner was relaxed and easy. (He provided the right balance of a lecture format and discussion.) Nearly everyone in the seminar participated in discussions, prompted by the readings. The readings were interesting and informative. The seminar leader seemed to be truly interested in things having to do with the public schools. He often initiated discussions which encouraged a dialogue between middle and high school teachers, for example. He also compiled the reading list with students in mind. In short, [he] understands the needs and concerns of his audience. He is "a natural" for the YNHTI.

The pleasure of being exposed to [my seminar leader] and his vast knowledge and humanness was one of the high points in my many years of teaching.

He seems to be a master in the subject. His explanations were very clear and abundant. He also looked enthusiastic, so there was no chance for boredom.

Reciprocally, the University faculty members who led Institute seminars expressed their high regard for the teachers with whom they worked. One wrote:

My expectations were relatively open prior to the summer. I had not taught in the Teachers Institute before. I expected a diverse group, but I did not know at what academic level to pitch the course. During the course of the summer, I found my esteem for the members of the seminar growing even as I cut back on the reading assignments.

In their evaluations Fellows characterized what in general they gained by participating in their Institute seminar. Several wrote:

Of all the seminars I have taken, I enjoyed this year's seminar with [the seminar leader] the most. We had interesting discussions, guest speakers in class (one of them I brought). I brought in a student from Hillhouse H.S. to read the poetry he had written and to describe his feelings of the poetry presented in class.

I have gained immensely from the seminar both academically and professionally. The personal interaction, academic discussion, and selected readings were so rewarding I could not help but look forward to each meeting.

Seminar participation was good. We headed in one or two directions we couldn't've foreseen, but the journey was fine. By and large, all Fellows participated fully, sharing their enthusiasm and knowledge. We ran the spectrum from elementary to high school--a plus, I feel. Our seminar leader was knowledgeable and generous--with ideas and time.

I greatly enjoyed my seminar experience this year. I believe this was due to my [seminar leader] and the members of my group. [The seminar leader] brought to our seminar a comprehensive knowledge of the subject matter, provocative insight and a delightful sense of our purpose. Each seminar session was interesting, full of information and very productive. It was fun and I learned a lot. I wouldn't mind having a few more sessions.

My experience in the seminar was more rewarding than I ever expected it to be! It was educational, stimulating and enjoyable. I loved the discussions of the books read and the interchange of opinions with my peers. Our professor made our weekly meetings fascinating and informative.

His flexibility with altering the syllabus was much appreciated because it allowed me to focus on understanding the concepts of the seminar rather than on the mere intake of factual data. What took place was qualitative and profoundly transformative rather than quantitative and superficial.

I found the Institute seminar stimulating and accepting. The seminar leader explained everything thoroughly and patiently. The atmosphere was very supportive. I felt I was learning something that was valuable to me in my classroom.

The seminar was great! It was advanced enough to be a brisk challenge; when it did become too advanced, the seminar leader was sensitive to this and was responsive to my needs.

In their evaluations seminar leaders also made general comments about their seminars. One said: "Just as last year, I enjoyed our discussions more than I normally do in Yale courses." Another wrote: "The group's diversity was a source of dynamism and once we decided on an acceptable common ground we did very nicely."

Each seminar must balance two primary objectives: further preparation of teachers through general study of the seminar subject, and application of what they have learned by developing curriculum units on specific topics for use in their own and other teachers' classrooms. In their evaluations, seminar leaders commented on how they balanced these two complementary, but potentially competing, objectives in the seminar. As one wrote:

I was quite happy with the balance between general seminar studies and individual units. The participants voted to set aside one day for a presentation of individual units, and the rest of the term was spent on common readings. Sometimes material from the common readings also played a central role in individual units.

The fact that the Institute requires Fellows to study the seminar subject generally while at the same time they develop their curriculum

units individually contributes to many Fellows feeling that the Institute is a demanding program. One wrote, "I have this unsettled feeling in my gut which tells me that this was too much, too fast." Another wrote:

The Institute is what I make of it. The more I put into my reading, research and writing, the more I take away. I would like to see the Institute continue to keep its standards high in its requirements despite the amount of work it requires of us and the possibility that some teachers might not participate.

From the beginning of the Institute we have stressed that the primary reason Fellows write units is to make explicit connections between the seminar experience and their own teaching. We have also emphasized that the main audience for whom teachers write their units is other teachers. As we have done in past years, we compiled the units into a volume for each seminar. In October, copies of these volumes were distributed free of charge to all Fellows and to their subject supervisors in the schools. By also depositing full sets of the volumes in each school library, we made the units available to any other teacher in the schools who might wish to use them. Because the cost of printing the units has increased so rapidly, we have decided not to provide each teacher who might request a volume his or her own personal copy. Instead, we will make the units widely available to be borrowed from Fellows, school Representatives, subject supervisors, and school libraries.

To aid teachers in identifying which units are most applicable to the courses they teach, again this past fall the Institute circulated to all teachers who might use the units copies of a Guide to the Units Fellows Wrote, which is a collection of synopses of the curriculum units written by the authors themselves, and the Index of All Curriculum Units Fellows have written since 1978. The Institute also updated and distributed the Reference Lists of all the curriculum units as they relate to each school course and grade level in the subjects the Institute addresses. In other ways, Fellows themselves take the initiative in promoting the use of the curricular materials they have prepared in the Institute. As one Fellow wrote: "I am always given the opportunity of presenting my unit to my fellow English teachers and of sharing my materials with them--in our own Department meetings." Another wrote:

The unit I developed around the colonial experience has been chosen by the K-3 Talented and Gifted staff as the focus for a majority of its 1989-90 curriculum. This means the 250 direct service children as well as numerous whole classes will benefit from the unit. This unit is the basis for what I will be doing this year.

In their written evaluations, many other Fellows spoke of how they planned to use the curriculum unit they wrote:

I went through dozens of student texts, journals, books and magazines in my search for good unit material. I revised and formally typed many of my own handwritten lab exercises and thought out ways to make text labs relevant and possible for my particular use.

I believe this opportunity has made it possible for me to really set in place a good introductory science unit for my eighth grade classes. The suggestions from my seminar leader encouraged me to stretch my thinking in some areas and make what I think is a good unit for the average student.

I have no doubt it will triple my laboratory hands-on time--something I have strived for yearly and seen only minor improvement in. I now have a group of workable, self designed labs that I can use. I also have new knowledge I am very excited about sharing. I have found that student interest and enthusiasm are directly proportional to teacher enthusiasm so I look forward to a good several weeks of high energy learning in my classes coming solely from the Institute program. I guess this means I'll have to do more Institutes to keep the level high all year.

My curriculum unit and Institute participation will have a great impact on my teaching and school curricula this coming year. My teaching techniques will be sharpened and my presentation skills will be upgraded because of what I have witnessed and participated in in the seminar. My school curricula will have more hands-on-activities to better motivate the students in formulating ideas and forming conclusions.

I am very excited about using this unit with my class this coming year. I perceived a tremendous need this past year for a program which would help my students to feel more a part of their community, and this unit is my attempt to fill that need. I feel that it is a very solid beginning which will continue to grow and develop as I use it.

I believe my unit will help me focus on group participation skills effectively. Also, I expect students to begin to be able to effectively research, using primary source materials which are readable and understandable with high-interest readings geared to their reading abilities.



I really feel that my unit will be of great value this coming year. It is going to give students, that normally don't like History, a chance to study the subject in a manner that is going to be interesting to them. That is, a chance to study their own neighborhood. This study will involve techniques that the students don't normally use (fieldtrips through the community, interviews, photo expeditions and research at historical societies, etc.)

It is a privilege to be an Institute Fellow, this year as well as in the past. The Institute fulfills a purpose and provides a forum in which teachers such as myself can plan, design, and incorporate a body of material into an established curriculum. This year we will be revising the city-wide curriculum and I am hoping to incorporate many of my units, especially this year's, into the new curriculum.

[My unit] will be a welcomed addition to present curriculum. It will motivate me to teach and my students to learn because the subject matter will be of interest to student as well as teacher.

I wrote my unit to develop an idea I have been playing with over the past few years, and in fact, have been even teaching. This seminar gave me a chance to develop and to organize it into a coherent whole, and it will give me a chance to use it in my humanities classes. The unit will become the major focus of my humanities work.

This year's seminar opened up this rich area of literature to me, and therefore to my students in the coming school year. The unit I have written will give my classes varied reading selections both for discussion and as inspiration for student's writing. Since I have always been a reader of mystery fiction, I wanted to share it with my students. The seminar allowed me to shape and form my ideas into a viable unit that I can teach with confidence. The unit will be a new way of teaching for me and of learning for my classes.

My curriculum unit will be shared with my friends who initially cultivated my interest in Edward Hopper and I look forward to our photographic expeditions within our community to photograph similar "ordinary and common scenes" much as Hopper painted his. We hope to imbue our students with observation and introspective skills and to have them sample firsthand the difficulties, the obstacles, and the decisions which every artist faces as they seek to ply their trade. We hope to kindle an artistic appreciation within each student.

Most Fellows write their units with their own students specifically in mind. Several Fellows commented on how they expected their students to respond to the curriculum units they had developed:

I think my classroom will greatly benefit from what I have learned in my participation in the Institute. I am looking forward to having my students participate in many of the crystal growing experiments and field trips and also developing crystals displays. I feel enthusiastic that they will be excited about this experience and learn something valuable too. The display the students will make will beautify the room and develop pride in the students and make it into an inquisitive place.

One of the personal eye openers for me was embracing the theory that even though you may be talking over your students' heads - there are times when this just has to be. Don't be afraid to put issues on a higher level, because sooner or later these statements will make sense, and also the students should be exposed to a higher level of thought.

I believe that my students will be very excited about the "Journey of Poetry" curriculum unit because it has so many rich poems and different strategies for approaching them. Students will feel much more comfortable reading different poems because they will have much practice reading intensively and looking carefully at each poem. Students will enjoy interpreting the well-chosen poems and writing poems with similar themes because they like to dream, fantasize and imagine, all aspects of developing their creative abilities.

By bringing together different types of readings, and then developing different modes of writing for self-expression, my students will gain confidence in their ability to write more comfortably in their own voice. I believe that I can accomplish many aspects of the present writing curriculum in a new and interesting way using mystery fiction as an inspiration for writing, and as good examples of excellent craftsmanship.

As in past years some Fellows commented on the work they expected to continue to do on the curriculum unit they wrote, either before or while teaching it. One Fellow said: "Past experience has shown that it'll be somewhat different in the 'doing' than the writing. I have already located some material not mentioned in the written unit which will be included."



Several Fellows spoke of additional ways their Institute experience would have an ongoing influence in their professional lives. One Fellow said: "This Institute will make me think more about topics I can use in the classroom and also activities that will stimulate my students." A Fellow in the humanities said: "

I found the Institute to be a very rewarding and stimulating experience. It helps to sharpen my writing ability as well as my research skills. It has also made me more critical of topics and activities to use with my students."

A Fellow in the sciences said:

I am now able to choose a topic, research it, organize it and write it. Without participating in this program, I would not have been able to do this. This program will help me to help other fellow teachers to write a curriculum.

A number of Fellows who were participating in the Institute for the first time this year commented specifically on how they had approached the experience and on what they had gained. Because of the importance the Institute attaches to recruiting teachers who have not participated before, the comments of these Fellows seem especially worth recording. One wrote: "I enjoyed being back in academia again--it was like coming home." A second Fellow said: "I was new to the Institute this year but would love to participate again, especially now that I have a clearer idea of the writing process." Other first-year Fellows said:

This was my first year of participation in the Yale-New Haven Teachers Institute. I enjoyed my research and unit work very much, and am pleased to have a product which I think will be very valuable to me in my classroom. I am certain that I will continue to develop my unit in the future. The background research will be of great use in my classroom teaching.

This was my first experience attending an Institute seminar and I have to admit I felt a bit insecure during most of the course of the program because I had no idea how I would measure up to the challenge. I really enjoyed our weekly meetings. Our seminar leader was wonderful. I expected her to be very knowledgeable concerning the subject matter but I never thought she would be so responsive to our individual situations and needs. She is a wonderful person and I feel privileged to know her.

This was my first year of participating in the Institute and I found it to be a very valuable experience. I appreciated the chance to research an area of need; I liked having a structured time-frame to keep me from procrastinating. It was very helpful to have access to Yale's library facilities, and to have a group of peers to interact with.

This was my first Institute this year.

Strengths:

Meeting new people.

Excellent lectures.

Everybody was willing to help you.

Being affiliated with the University.

Representatives in my school were super!

Weaknesses:

Parking too far away.

This was my first year as a Fellow so I have no basis for comparison. I look forward to next year's program. I know I will be less intimidated by Yale, writing a unit and my ability to keep up with the reading while I am still teaching daily.

This was my first year with the Institute but I hope to continue over the years. The greatest strength in my opinion is that I found a renewed interest in intellectualism, which is not present in my day-to-day life. I was glad to get the opportunity to share ideas, discuss, and even argue points of history, social ills, etc. with fellow thinkers. It has been years since I earned my last of three degrees and was able to express and absorb ideas in a class of my peers.

As far as the weaknesses of the program, I have not found any. This is my first year participating in the program and I hope it is not my last. I was very impressed with the program and what it had to give.

Some Fellows also mentioned the benefits of holding the Institute on the Yale campus and of the access to facilities which they enjoy as members of the University community. One said: "I loved coming to Yale; the buildings, libraries and general atmosphere were a real lift in my week." Another spoke of how the libraries "are available to me for further research and will enable me to pursue suggestions by my students and fellow teachers." Two other Fellows wrote:

I am so pleased that I chose the seminar "America as Myth". I have gained a beautiful experience; first of all, because I was surrounded for almost the whole course by the most precious and interesting environment, which was the Yale Art Gallery. This is something that I really love, since painting is my favorite hobby. I have been delighted to look at such beautiful pieces of different artists of different epochs.

By participating in this year's seminar I not only have gained knowledge but by completing the Institute I will also have access to Yale's many libraries and other activities which will further strengthen me in this area.

A theme in the evaluations Fellows wrote this year is the confidence they have gained in their teaching as a result of their Institute participation. In representative comments, several Fellows said:

I would say that my confidence and self-esteem were greatly enhanced by experiencing myself as a student. I think the process of teaching and learning are interdependent to critical thinking and growth in the profession.

My experience as a participant in the Institute gives me a lot of confidence in teaching. Because I did an awful lot of reading in order to develop this unit, my level of concern has been stimulated to learn more of other topics. This action is definitely making me a better educated person.

Nothing makes a teacher feel better about what he does than when he feels he is in control. The Institute provides us with the means for that control. Through each step of the process we see the unit develop and we know that it is truly ours. The seminar leader's guidance is essential in helping us shape the final product, but in the end the unit is certainly ours.

Though I am really tired after all the reading and researching, I do feel more confident, better prepared. And I want to prepare more units of the same type for my special students in the future.

My participation in the seminar has been tremendously helpful in my preparation for the coming school year. I was able to prepare a year-long unit for one of my classes. In doing so, I read extensively on a topic in which I have had a long-standing interest. The time I spent writing and researching and discussing my unit has enabled me to become quite knowledgeable and as a result more confident in presenting my unit.

Institute studies have shown that many teachers are assigned to teach subjects in which they have little formal preparation, or which they have not studied recently. This is one of the reasons why a principal aim of the Institute is to give teachers additional preparation in the subjects they teach. As one seminar leader wrote:

I have certainly found this seminar to be most educational. I had no idea that the problems facing inner city schools were so acute, notwithstanding all of the things one has heard and read. There is nothing like meeting these teachers in person. Most of them are really quite keen and lively, and I enjoyed very personal interactions with them very much. But the problems they face are formidable. I certainly have no ready solutions to suggest but I can testify to the urgent need that something needs to be done. There are at least two serious problems. One is the well known problem of motivating students who come from poor or otherwise disadvantaged backgrounds. At each stage of their education they seem to learn only a fraction of what they are taught, so that much material must be repeated over and over again. The second major problem lies in the science education of the teachers themselves. I have been told about this before but I did not appreciate how severe this problem is. If teachers are to teach science better they must first learn more science themselves.

Fellows' comments about what they learned in their seminar are therefore particularly encouraging. In representative comments, several Fellows in the sciences wrote:

I gained a tremendous amount of new understanding about crystals and semiconductors--something I firmly believe I would not have done without good guidance and encouragement. A question about liquid crystals (very much a spur-of-the-moment thought) resulted in that topic becoming a significant part of my unit. It was a joy to ask a question, a tough technological question, and get answers and resource readings in return. The whole Institute experience was outstanding.

I learned a great deal about crystals. This will enhance my teaching in science. (Thanks.)

I thought, at first, that the seminar was going to be boring. But as time passed, it got to be more interesting. I learned an enormous amount of information on the history and the

advancement of electricity. The experiments, demonstrations, and illustrations on how electricity works were just excellent. Having hands-on experience on some of the experiments was helpful also. Hearing comments from fellow teachers who did some experiments on electricity were inspiring as well.

This year's Institute seminar that I attended provided a lot of stimulus and a fresh insight into the subject area. The seminar provided a brief but thorough study of the technology behind these inventions that we have taken for granted. I personally was fascinated in some of the dimensions that are now being taken in the field. The seminar could be described as both stimulating, challenging and rewarding.

My experience in my Institute seminar this year has been both enriching and rewarding. It has been enriching because I have gained a wealth of information on electricity and superconductivity, that I would not under normal circumstances have acquainted myself with. The materials and information were presented in a manner that was both difficult and easy to comprehend. The new terminology made it difficult but the persistence and determination of the seminar leader helped us all to understand the materials. The reward comes in my ability to comprehend electricity better and hence making me better qualified to teach the unit to my class.

Fellows in the humanities also wrote about the knowledge they gained in their seminars:

My experience in the Institute seminar this year was very informative as well as a new learning experience. I didn't realize myself how much interest I had in American communities. [The seminar leader] provided us with a vast range of knowledge of history. So many others in our seminar were very well versed in this area. I felt very comfortable after the first couple of meetings with the group to offer my personal thoughts and ideas to the discussions. This was one of my best experiences this year.

Even though I had a good background in history and in the social sciences, I found that there was so much historical information that I had forgotten and that what I remembered was, in many ways, superficial. Rethinking, re-retrieving, re-interpretation as well as acquiring new knowledge was so healthy.

For the majority of the participants, Latin American literature was an unfamiliar topic. [The seminar leader's] presentations and our work together helped to make this year's seminar one of the best ever!

The seminar provided us with a wide variety of mystery, detective fiction and spy thrillers. Each selection demonstrated another aspect of the genre that allowed us to more fully understand the body of work. I have always read detective fiction, but after the seminar I have an ever deeper appreciation for it. Many of the other Fellows also felt that their understanding was broadened, and therefore their appreciation became more meaningful. We all left the seminar much more comfortable about teaching mysteries in our classroom.

I have learned a lot about American painters and writers, things that I have not had the opportunity to study since I came to live in this country. I had always wanted to study these things but never had the time to do it.

I will be more at ease when discussing poetry. As a youngster, I was turned off with poetry and English literature, because it was not interesting and was irrelevant, to me. I wasn't interested in Romeo and Juliet, Dante and the like. Now, I enjoy modern poets and poetry.

Personally the topic was especially helpful for me because in my master's program I do not have the opportunity to study this aspect of literature. Since I teach in a school with a large Hispanic population I think it is important that I be familiar with authors from Latin America.

Numerous Fellows spoke also of the intellectual stimulation they received from participating in their seminar. Three wrote:

It was a rewarding experience, especially the sharing of ideas and the reading for the seminar. I found intellectual stimulation that I do not get a chance to enjoy during the school year because of the isolation found working in a middle school. There seems never to be enough time. There are always meeting after meeting called by the administration but they are not teacher orientated.

Probably the greatest strength for me was the academic stimulation. It is easy to get caught up in the day-to-day



mechanical necessities of teaching while neglecting your own academic growth. It is important to have an opportunity to balance out the picture. It was also important to have the opportunity and stimulation to develop a unit tailored to my own needs. The interaction with teachers of similar attitudes as well as with my seminar leader was also very important.

I thoroughly enjoyed participating in the Yale Teachers Institute because it was intellectually stimulating, informative, exciting and relaxing. It was a very thought-provoking experience.

Another theme in Fellows' written evaluations is how the Institute has contributed to their professional morale and to their enjoyment of teaching. One wrote: "I know I will enjoy teaching more this year because of my unit." Three Fellows in the humanities said:

Involvement in the Institute every year strengthens my ability to teach the basic requirements to my students. It broadens my horizons and opens doors to creative teaching. It also helps me remember that the best way and most effective way to teach is to remember what it was like as a student and the ideas which kept me involved and always interested. By participating in the Institute I am reminded of those feelings and can generate strategies to use with my students throughout the year.

I am looking forward to initiating my unit. I feel it has given me a fresh outlook and enthusiasm toward an area I enjoy but which had become rather routine over the years. I also feel I will be able to present material that will challenge and enrich my students in ways I have not done before. As I stretched myself in my seminar, I hope to stretch the students in my classroom.

After teaching for a number of years, I am always looking for new ways to get things done as much for myself as for the students in my classes. The excitement I feel about my unit this year will surely be passed on to my students.

One Fellow in the sciences wrote:

Overall I found the Institute a very positive experience. The lecture series I thought were grand. I came out of them from a new perspective. This excitement carried over into my classroom experience and I tried to transmit this same enthusiasm. The

seminar experience was similarly stimulating giving energy to many ideas of working in the classroom.

Seminar leaders, too, noted Fellows' apparent enjoyment of the seminars. One wrote: "The participants clearly relished the exchange of ideas." Another said: "I thought they reacted positively to the seminar, in part because I think they found the opportunity to discuss ideas and exchange intellectual points of view exciting." A third seminar leader spoke of his own enjoyment of the seminar when he wrote:

I'd say the discussions differed from my classes at Yale chiefly in that the teachers have a broader experience of life and tend to read poetry in less technical ways, more in relation to their experience and their common sense. I found it refreshing.

In their written evaluations the seminar leaders spoke of various other ways in which they themselves gained by participating in the program:

I believe that the interchange between Yale and the public school system is an important one, and I learned from it all sorts of intangible things that may or may not make me a better educator. They certainly make me a better--and better informed--citizen.

I benefited greatly from the kind of questions raised in the seminars because they are almost always insightful yet concrete. Our focus on community led to a greater appreciation of the multilayered structures of contemporary life. I gained some new ways of seeing from the seminar.

I believe that the Fellows all reacted positively to the seminar, some more so than others, of course, and I felt reinvigorated with the subject matter and the Institute, concluding that this was one of the three best and most interesting seminars I had led.

While it has not contributed to my scholarship, it has definitely added to my personal experience as a teacher. It has made me reflect, once more, on the difficulties of making the unfamiliar familiar and on the intricacies of cultural exchange. It has also given me a more informed view of the secondary school system in this country, a subject about which I knew little or nothing.



I continue to have my mind extended by teaching topics I don't ordinarily teach, and by ideas and broad experience that the teachers bring. I find I share most of their principles and ideals. Also, it's tremendously awakening for me to get into the schools and meet students, and watch the classroom interaction among students and between teachers and students. It's given me a far higher opinion of the New Haven school system than I had before. It's valuable in a general human way as background for my teaching, but I get plenty of useful new ideas for that as well.

Compensation strikes me as about right: I would not teach for the pay alone, were I asked to teach a subject from which I would not learn myself, but since compensation consists of both self-growth and direct pay, I think the Institute provides an appropriate package. This also points to the benefits Yale faculty members gain from teaching in the Institute: a chance to rethink a subject in the context of teachers who truly must teach, as opposed to lecture, and who therefore bring an important and realistic perspective to questions too often asked in purely theoretical contexts in a university such as Yale. I have no doubt that teaching in the Institute has contributed both to my scholarship and to my regular teaching at Yale.

Finally, to conclude this discussion of the 1989 program, in evaluating their experience in the Institute overall, Fellows in the sciences and in the humanities wrote:

I only found strengths this year.

The strengths of the program are numerous. The networking with other science teachers, working and thinking of strategies with them, was invaluable. The deadlines got me going on reading and writing. And finally and most important the presence of the seminar leader who was a tremendous help in understanding new materials and finding useful resources. I thoroughly enjoyed studying under and working with [the seminar leader].

I can't really pick out any weaknesses. My participation has been the same this year and the previous years. I have done the best I could and tried to get the most out of them possible. I have taken the knowledge and tried to grow and use it from year to year. Two seminars stick out as special. I think I have enjoyed this year and last year the most.

The Institute is very well organized--all the way from the introduction of the program to submitting the final unit, it was explained and described in detail to assure understanding of the expectations and uniformity in the final unit.

I enjoyed the learning experience I received from this Institute program. I don't know of any other program that would have given me what I needed to improve my teaching. This program has encouraged me to pursue further studies in my subject area [science]. It has given me the confidence to do more for my school. I view this program as being one of the best programs for providing teachers the skills they need on how to write a curriculum.

My experience in the Teachers Institute was very enjoyable, challenging as well as rewarding. I enjoyed sharing ideas, experiences and just spending time with other teachers outside of the school environment. The reading material and writing process were very challenging. I enjoyed both.

As usual, participation in the Institute provided the impetus for pursuing--and doing something about--a topic I was interested in. I know I wouldn't do it on my own! Also as usual, I feel participation in the Institute strengthens both my curriculum and my desire/ability to be a better teacher.

I feel that as a whole the Institute is a very viable program that provides a solid foundation upon which to construct a well-organized unit. The overall strengths of the program I have found are two-fold.

First: the quality of instruction available to participants is second to none.

Second: the diversity of backgrounds that the Fellows bring into the program also adds to its overall strength. I also feel that the use and exposure to various libraries and other Yale facilities is very important to the strength and success of the program.

The Institute this year was very valuable in helping me to become a more effective teacher and writer. It will stimulate me to give all my students my increased knowledge and my best effort and they will realize how important they are in my life; thus they can experience more of the rewards of learning.

This was my first year with the Institute. I found it to be a

rewarding experience. I enjoyed the lecture series tremendously. The seminar was great and the deadlines for the drafts did help me to make the final deadline. In the beginning I did have some complaints about the Institute beginning so early in the year; but after completing the Institute I realize it is the best way. I would not like to be still working on a paper in August.

I think this was a very successful year for the Institute. It seems that for the most part people were enthusiastic and interested in their seminars and the talks. All the talks were good. The writing workshop should be continued.

I believe the structure to be extremely sound and beneficial. The writing process was extremely helpful.

I was particularly impressed with the overall organization of the program offered by the Institute. It seemed that no detail was overlooked. Even the little things like coffee and sweet treats were done with special care. That was a pleasant social touch which made the transition from the school day to the seminar a bit easier to manage. The quality of the seminar itself was excellent.

In 1986, I was involved in the Institute...and at that time I was equally pleased with the subject matter as well as seminar leader. I have not found any weaknesses. I find (so far) the seminar leaders to be cooperative, enthusiastic, and unpretentious.

In the two years that I have participated, I have developed a respect for the Institute, its goals and a new perspective and respect for the work that is being done by the professors at Yale and the Yale community in general.

The strengths of the Institute are clear in my mind. The opportunity to sit with a person of [my seminar leader's] stature and discuss literature and history is priceless. Receiving [his] assistance in the writing of my unit is simply magnificent. Discussing the reading in the seminar with other New Haven teachers is something that all of us do too little of. The seminar brings together so many varied experiences that just to sit with each other weekly would be highly worthwhile. The discussions about teaching techniques each of us use will prove to be a useful experience throughout the coming school year and beyond.

Strengths: meeting people such as [my seminar leader] whom I would have never met unless I had taken the Institute. Researching and being exposed in-depth to my subject matter. Lastly, being with other knowledgeable people and partaking of their camaraderie. Weakness: lack of parking when attending lectures at The British Art Museum. Sorry, that's all I can think of.

The strengths are numerous, the peer relationships, the excellence of the faculty and the chance to elaborate upon an area of interest for the benefit of the school system are but a few.

Overall, I see many strengths in the program. Meeting fellow teachers and Yale faculty, the availability of Yale resources, the talk and seminar sessions are all very positive aspects of the Institute.

The Institute continues to benefit teachers by providing them with the opportunity to develop new materials for students. The Institute year seems to go by faster and faster--talks to seminars, ideas to drafts--all flow logically in a well planned process. There was a good variety of seminar topics to choose from this year, the talks were thoughtfully arranged, and the seminars progressed well. A particular strength is the use of highly interested Yale faculty and the variety of teachers mixed in the collegiate setting of the seminar. The Teachers Institute is one of the best things that New Haven teachers have professionally and psychologically.

#### Program Development

During the course of their weekly meetings which dealt with the ongoing operation of the program, the Institute Coordinators discussed as well several topics with respect to the further development of the program. In one important area, the Coordinators continued to explore the relationship of the Institute to the new state law and local policies concerning the recertification of teachers as professional educators. As described in our earlier reports, a new Connecticut law, which after a challenge in the courts took effect on July 1 of this year, requires that teachers complete every five years ninety "contact hours" or nine "continuing education units" (CEU's) in order to renew their state license to teach. While no teacher could receive credit for activities in which they were engaged prior to July 1, the New Haven Public Schools decided to award all teachers who completed successfully this year's

Institute two "continuing education units" for the portion of the program occurring after that date.

In October the Institute Coordinators met with the president of the local teachers' union and the Director of Staff and Organizational Development for the New Haven Public Schools to discuss the relationship of the Institute to CEU policies in the future. As a result of these meetings it was decided that Fellows will receive four CEU's for successfully completing the entire program. The Institute has thus become an integral part and important feature of the in-service or continuing education offerings that the school district is required by state law to provide the teachers it employs. The Institute is, in fact, the principal opportunity for New Haven teachers in the humanities and in the sciences to continue to study the academic subjects they teach in order to obtain recertification.

In other areas, the Coordinators planned the distribution of the updated Index of all Curriculum Units written since 1978, which was completed in September. As described above, this Index was circulated widely to teachers and school supervisors to aid them in identifying the units that are most directly applicable in the courses which, respectively, they teach or supervise. Between October and December the Coordinators also discussed and decided on the subjects of seminars which the Institute will offer in 1990. They developed a new form which teachers will use in applying for these seminars. This form will require teachers to write a short essay on why they wish to participate in the Institute seminar to which they are applying, and on how they envision the seminar will assist them in their own teaching. By writing this essay, applicants will in effect begin the process of writing about the relationship of the seminar subject to the courses they teach.

With respect to teacher leadership in the Institute for the 1989-1990 school year, the Coordinators concluded that the group of school Representatives in 1988-1989 had been so effective in promoting the program, providing their colleagues with information on the Institute, and recruiting applicants for 1989, that they wished to invite all the Representatives to serve again in a similar capacity for the coming year. Each of those Representatives agreed, and we added a few others where there had not been an Institute Representative working directly within the school in 1988-1989.

On several occasions the Coordinators also discussed a proposal which a New Haven teacher, who is a former Coordinator, has made for the Institute to develop a new activity. According to this proposal teachers who have participated in the Institute several times would work toward

publication of a larger piece of curriculum which might then be made available not only to colleagues in New Haven, but also to teachers in other school districts across the country. The Coordinators discussed how this new proposal may relate to the Institute's study of the subjects and structures of the curriculum units, for which a draft report has been prepared. The Institute has been seeking and has finally secured funding to prepare a more public version of this study which, as described below, will be published together with several exemplary curriculum units.

Again this year the Institute Coordinators took a day of professional leave to meet at the Institute to discuss a transcript of the comments Fellows made in their written evaluations at the conclusion of the program. At that time they reviewed in particular the results of the pilot program involving elementary school teachers in the seminars that had been organized initially with middle and high school teachers in mind. Following are representative comments elementary school participants made, which the Coordinators examined:

Being an elementary teacher, this was the first time for me in an Institute and I was somewhat apprehensive about how I would fit in with those whose teaching orientation was more subject-matter directed. I am pleased to say that for me it made little, if any difference, except that I think we all grew somewhat from the variation in our outlook. For the most part, however, the important part of our seminar focused on our study of poetry. It was a pleasure for me to be dealing with topics that certainly related to my teaching but were also enriching and challenging me as an individual. I am certain they will have their effect in my classroom.

In retrospect the Institute was wonderful! I had felt comfortable enough to consider developing units in other seminar areas, however the [seminar I chose] allowed me the opportunity to study in depth an area of real interest; an area that also happened to be included in New Haven's primary curriculum.

I have always taught poetry in my fourth grade classroom, but it has been hit-or miss. I had read a number of books about other ways of teaching, but lacked time or energy to try. So putting it all down in sequential, usable form will make it much more likely that I will try those new ways, and improve the old ones. I think my kids will enjoy poetry more by the end of the school year. From the Institute I have gained confidence.

I intend to use my curriculum unit on reading and writing mystery stories with my class this coming year. It has given me



insights into the many different approaches which can be used in teaching this to ten and eleven year olds.

I appreciate the equality of treatment between high school teachers and elementary teachers. Some of the most talented teachers I know are elementary school teachers, and I am sure they can enrich the program.

Based on such comments as these, as well as on the interaction among Fellows in each seminar which they had observed, the Coordinators recommended that elementary school teachers from grades 3 through 5 be eligible in a more regular way to apply to Institute seminars. Institute seminar leaders also recommended that the program include elementary school teachers in future years. In their view, this would not increase the already considerable diversity among seminar participants. Moreover, Coordinators and seminar leaders alike observed that, being eligible to participate for the first time this year, elementary school teachers brought an infectious enthusiasm to the program. Middle and high school teachers remarked, too, on the value of learning more first-hand about teaching and curriculum in New Haven's elementary schools. We have therefore decided, beginning in 1990, to invite individuals who teach the humanities or the sciences in grades 3 through 5 to apply to participate in Institute seminars. As with all other applicants, these teachers must demonstrate the relationship of the seminar to their own curriculum and how, by writing a curriculum unit according to Institute Guidelines, they can teach topics from the seminar subject to their own students.

#### Recognition and Dissemination

During 1989 the Institute has continued to work with individuals located across the country who have an interest in learning more about our work in New Haven. We have answered numerous inquiries on the telephone, and have furnished individual replies and Institute materials to representatives of diverse institutions. These institutions include, by way of example, the Chicago Council on Post-secondary Education, Smith College, the College of Staten Island, Creighton University, Louisiana State University at Shreveport, the Metropolitan Museum of Art, the California State Department of Education, Kansas State University, and Greece Olympia High School in Rochester, New York. We have also continued to participate in meetings organized by the College Board for members of its Educational Equality Projects Models Program for School-College Collaboration. An Institute Coordinator attended the Models Program meeting in June in Oklahoma City, and the Institute director participated in the December meeting of the group in New York. We also have hosted this year a few visits to New Haven, including one by

a representative from the University of Wisconsin, which is exploring the development of a similar program.

Since 1980 the Institute's work has been cited in numerous studies and reports on improving education for students in the nation's schools. In 1989 the Institute was featured in two new studies: "Collaborative Professional Development: A Case Study on Teacher Development Through School-College Collaboration," by Nancy E. Adelman; and "Improving Science Education through Local Alliances," by J. Myron Atkin and Ann Atkin. The Institute also received favorable mention in the "Internal Self-Study: 1980-1989," of the Educational Equality Project of the College Board, and will be treated as well in two forthcoming College Board publications: one on "The Governance of School-College Collaboratives: Lessons Learned from the EQ Models Program," by Gordon B. Van de Water, and another on the "Evaluation of the Collaborative Models," by Gita Z. Wilder of the Educational Testing Service, who since 1986 has also advised the Institute on the development of its evaluation practices.

#### Evaluation

In 1989 the Institute also made considerable progress in several of its studies on the results of the program. Our earlier reports have described in detail the questionnaires we developed with the assistance of Ms. Wilder, among others. These include a questionnaire for Fellows to complete at the conclusion of their participation, which has been administered annually since 1986. Another questionnaire surveyed all New Haven teachers, both those who have been Fellows and those who have not, on specific issues relating to the Institute and, more generally, on the array of widely publicized proposals that have been made in recent years for the improvement of public schools. During 1989 we completed almost all of the coding and entry of data from the many multiple choice questions in each of these questionnaires. We are now undertaking extensive analysis of these data and will soon begin to prepare detailed, technical reports on the results. This is the next step which will lead eventually to more concise presentations on the main results of the Institute's work over time.

In 1989 we also updated our ongoing study of Fellows who have remained in teaching in New Haven. We regard this information as potential evidence--which is buttressed by the results of other studies--about the effects of the Institute in retaining in teaching in New Haven individuals who have participated in the program. The study shows that of the 289 individual teachers who have completed the program successfully at least once between 1978 and 1989, 190, or two-thirds, are

still teaching in a New Haven Public School. An additional 17 individuals, or 5%, have assumed positions in the New Haven Public Schools administration. The following table shows the proportion of current New Haven school teachers, by subject and school level, who have participated as Fellows.

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Institute Fellows as a Percentage of Eligible New Haven Teachers

	<u>Middle Schools</u>	<u>High Schools</u>
English	50%	35%
History	53%	50%
Foreign Language	22%	19%
Arts	57%	27%
Math	21%	24%
Science	35%	24%
Total	41%	35%

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As the table also shows, a similar proportion of middle school teachers (41%) and high school teachers (35%) have participated in the Institute. Overall, more than one-third (38%) of all New Haven middle and high school teachers of the humanities and the sciences have completed the Institute successfully at least once. With respect to the number of years Fellows still teaching in New Haven have taken part in the Institute, about half of all middle and high school teachers (48%) have participated only once; about another one-third (29%) have taken part either two or three times; while other Fellows have participated between four and twelve times. Thus, while the Institute has served a significant proportion of all eligible New Haven teachers, and while it has become a regular part of the professional lives of some teachers, there are many teachers who have yet to participate even once and many others who we hope will participate on a more recurring basis.

### Finance

With respect to the Institute's ongoing efforts to secure a more adequate and more permanent financial foundation, Edward J. Meade, Senior Program Officer of the Ford Foundation, and Donna V. Dunlop, Program Officer of the DeWitt Wallace-Reader's Digest Fund, jointly hosted a meeting at Ford in May for several of the Institute's current or prospective foundation funders. Mr. Meade opened the meeting by speaking of the Institute's persuasive arguments for permanent funding, of the way in which the Ford Foundation has dealt flexibly in addressing the Institute's convincing financial need, and of his hope that other foundations would think creatively about what they too might do. In 1988 a grant from the Ford Foundation established the Cash Reserve Fund for the Yale-New Haven Teachers Institute. Ms. Dunlop then spoke of the new \$225,000, three-year grant which the DeWitt Wallace-Reader's Digest Fund had just made to the Teachers Institute in precisely the vein Mr. Meade had described.

Two New Haven teachers who attended the meeting at Ford then answered questions and testified to the enormous value of the Institute to them, their students, and their colleagues in New Haven. Other foundation representatives themselves spoke of the local and national significance of the Institute, commenting in particular on the curricular materials teachers prepare through the program for use in their own and other classrooms, and on the way in which the Institute so successfully involves a numerous, diverse, and representative group of New Haven teachers.

In 1989 the Institute also received crucial, renewed support from the Carnegie Corporation of New York in the form of a \$285,000 grant for the next three years. This grant provides partial funding for a continuation of the Institute's program for New Haven teachers in the sciences, and also for the completion of the study, mentioned above, on curriculum units teachers have written in the Institute since 1978. We expect to publish in late 1990 or early 1991 a condensed version of the report on that study together with a collection of exemplary curriculum units that will be first distributed and discussed at a national meeting on the Institute which Carnegie will partially fund. Institute seminars in the biological sciences will be supported in part out of a budget of \$60,000 over the next three years, which is earmarked for the Institute under the new grant to Yale College from the Howard Hughes Medical Institute. Finally, during the period of the present report, we were pleased--because of the potential importance of individual contributions to the Institute's permanent Funds--to receive renewed support from the College Board for the ongoing preparation of individual profiles on

prospective donors, a majority of whom are Yale alumni who have been approved by the University for an approach by the Institute.

Thus the Institute is on the threshold of an intensive, new effort to secure the support of foundations, corporations, and individuals who share the Institute's commitment to the improvement of teaching and learning of the sciences and the humanities in the nation's schools.

Appendix

Institute brochure

Descriptions of 1989 seminars in the sciences and the humanities

Recent articles on the Teachers Institute:

"Grant supports programs for city's teachers," Yale Weekly Bulletin and Calendar, June 26-July 10, 1989.

"Yale-New Haven Teachers Institute Announces Changes in Application Process," Advance, November, December, 1989.

New studies and reports citing the Teachers Institute:

Atkin, J. Myron and Ann. Improving Science Education through Local Alliances; A Report to the Carnegie Corporation of New York. Santa Cruz: Network Publications, 1989, especially pages 52-55.

Adelman, Nancy E. Collaborative Professional Development: A Case Study on Teacher Professional Development through School-College Collaboration. New York: The College Board, 1989, especially pages 11-12, 14.