



Yale-New Haven Teachers Institute

Taking New Content Knowledge into the Classroom: Use of Teachers Institute Curriculum Units, 2018

Ellen Eliason Kisker
Twin Peaks Partners, LLC
January 31, 2018



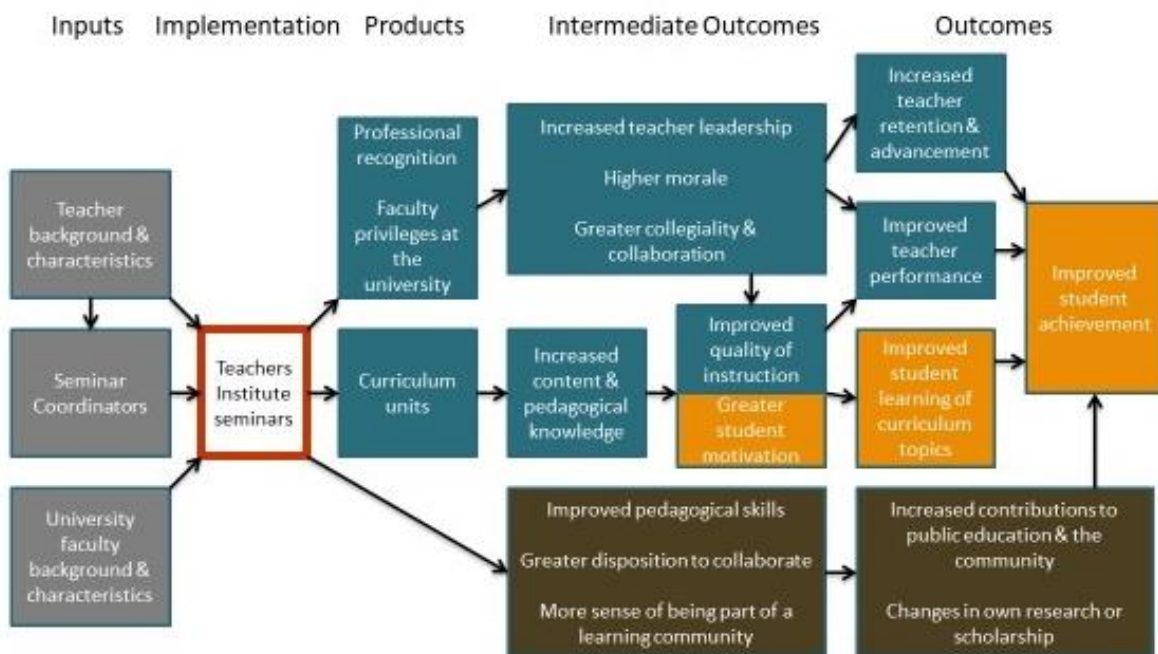
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School districts, in partnership with one or more universities and colleges, form Teachers Institutes that offer seminars led by faculty on topics that teachers have identified as important to their work. The seminar schedules vary across Institutes, but typically seminars meet weekly over several months. In the seminars, the faculty seminar leader guides participating teachers (Fellows) in learning about the seminar topic, and the Fellows develop curriculum units that their principals have agreed they can implement in the coming school year. The curriculum units are published online and available for other teachers to use. In recognition of the time and effort they put into their work in the Institute, seminar leaders receive compensation and Fellows receive a stipend and University privileges during the year of their participation.

In the Teachers Institute theory of change, increases in Fellows' content and pedagogical knowledge lead to improvements in their teaching, in part through implementation of the curriculum unit that they developed in their Institute seminar. Through their use of their curriculum unit, through their deeper knowledge of their topics, and through the new teaching strategies they learned, as well as their persistence in teaching, Fellows may improve student learning (Kisker 2011).

Teachers Institute Theory of Change



Because the curriculum units produced in Teachers Institute and National Initiative seminars are published online, other teachers can discover and use the units. Thus, the potential improvements portrayed in the theory of change may be extended beyond unit authors and their students. Other teachers can implement or adapt the units, use the subject matter to bolster their own knowledge, or find fresh teaching strategies to present their own content.

Past surveys on unit use in New Haven showed that nearly all Fellows used their units, many repeatedly, and other teachers also were likely to use them (Yale-New Haven Teachers Institute 1992). The Teachers Institute National Demonstration continued to show that nearly all Fellows used their units, and many Fellows reported using Institute curriculum units other than their own (Smith 2004). In the Fellow questionnaire that they complete after each seminar, many Fellows indicate plans to share their unit with other teachers, and some veteran Fellows report that they continue to use all or parts of units they've created in previous seminars.

Because curriculum unit use is a key way for Institute seminar participation to influence student learning, new data were collected to gain insights into the extent to which and how teachers, both Fellows and other teachers, use the curriculum units. The results of this new data collection are presented below.

Background

Curriculum unit dissemination by the Yale National Initiative and Teachers Institutes occurs in several ways. Individual Fellows may share their units with colleagues directly. All units are also published electronically on Institute and Yale National Initiative Web sites. In addition, the curriculum units produced in the Yale-New Haven Teachers Institute each year are printed, compiled into volumes for each seminar, and placed in a designated location in district schools for use by teachers.

Online Curriculum Units

The Yale-New Haven Teachers Institute publishes curriculum units written in its local seminars at <http://teachersinstitute.yale.edu/curriculum/units/>. The Institute created the Web site in the mid-1990s by scanning and posting curriculum units written by New Haven Fellows between 1978 and 1997. From that time on, Fellows were required to submit their curriculum units in digital as well as printed form, and new units have been added to the Web site annually.

The Yale National Initiative publishes curriculum units written in its seminars at <http://teachers.yale.edu/curriculum/index.php?skin=h>. The Initiative launched its Web site and began publishing curriculum units written in Initiative seminars in 2004. The Initiative also requires Fellows to submit their curriculum units in digital form, and new units have been added to this Web site annually.

On both the Yale-New Haven Teachers Institute and Yale National Initiative Web sites, the curriculum units are grouped by the seminar in which they were written, and seminars are grouped by the year in which they met. Accompanying the curriculum units written in each seminar is a description of the seminar by the university faculty member who led the seminar.

The Delaware Teachers Institute and the Teachers Institute of Philadelphia also post the curriculum units written in their seminars on their program Web sites, organized in a similar fashion. The Delaware Teachers Institute publishes each curriculum unit written in its seminars at <https://www.dti.udel.edu/curriculum-units/users-guide>, along with a Guide entry (summary of the unit) and a "Learning Map" for each unit. The Teachers Institute of Philadelphia publishes its curriculum units

at <http://theteachersinstitute.org/content/curriculum-unit-guide>.¹ A summary of each unit is listed along with a link to the full curriculum unit. The Yale National Initiative Web site includes links to the lists of curriculum units published online by each of the local Teachers Institutes.

From the list of curriculum units for each Yale National Initiative and Yale-New Haven Teachers Institute seminar, Web site users may view a Guide entry for any selected curriculum unit, or they may proceed directly to the full curriculum unit. The Guide entry provides a brief summary of the unit and identifies the subject areas and grade levels for which the unit was designed, as well as other subject areas and grades for which the unit may be appropriate. At the bottom of the Guide entry is a link to the full curriculum unit. At the beginning of each unit posted online, a list of contents with links to key sections of the curriculum unit is provided to facilitate navigation through the unit.

The Yale National Initiative and Yale-New Haven Teachers Institute Web sites attract a high volume of visits.² On average during the study period (February 19, 2016 to July 4, 2017), the two Web sites together attracted 6,352 users per day. During that period, Yale National Initiative Web site users typically entered the Web site on a curriculum unit page, spent an average of 4 minutes and 55 seconds on the page, and then exited the Web site. Yale-New Haven Teachers Institute Web site users spent an average of 32 seconds on a curriculum unit page.³ During the study period, 20% of the Yale National Initiative Web site's overall page views came from sessions lasting more than three minutes, 12% came from sessions lasting more than ten minutes, and 4% (19,862 page views) came from sessions lasting more than thirty minutes. On the Yale-New Haven Teachers Institute Web site, 12% of page views came from sessions lasting more than three minutes, 6% came from sessions lasting more than ten minutes, and 1% (31,209 page views) came from sessions lasting more than thirty minutes.

During the study period, the 25 most-visited curriculum units on each Web site included units in all core subject areas and units targeting students at all levels. Approximately 87% of visits during the study period were to the Yale-New Haven Teachers Institute Web site, which has existed longer and is visited more in part because of the cumulative nature of links circulating that have never been broken. All of the most-visited units on this Web site were written at least 9 years ago, and all except 8 units were written prior to 2000. All of the most-visited units on the Yale National Initiative Web site were written between 2001 and 2012. The most-visited units on the Yale-New Haven Teachers Institute Web site were most likely to be units in the history and social sciences area, while the most-visited units on the Yale National Initiative Web site were most likely to be units in the English and language arts area.

¹ The Web site URLs changed during the study period. The URLs in this report are the current ones at the time the report was written.

² Statistics describing Web site use are available from Google Analytics. These statistics cannot account for times when Web site users have a page open in their browser but are not looking at it or times when users download material and look at it offline, so they must be considered suggestive.

³ The lower average time on Institute Web site may indicate that the Institute Web site draws from a broader audience than the Initiative Web site, and proportionately fewer individuals find what they are looking for and spend meaningful time viewing curriculum pages on the Web site.

**Characteristics of the 25 Curriculum Units Visited Most Often on Program Web Sites,
February 19, 2016 to July 4, 2017**

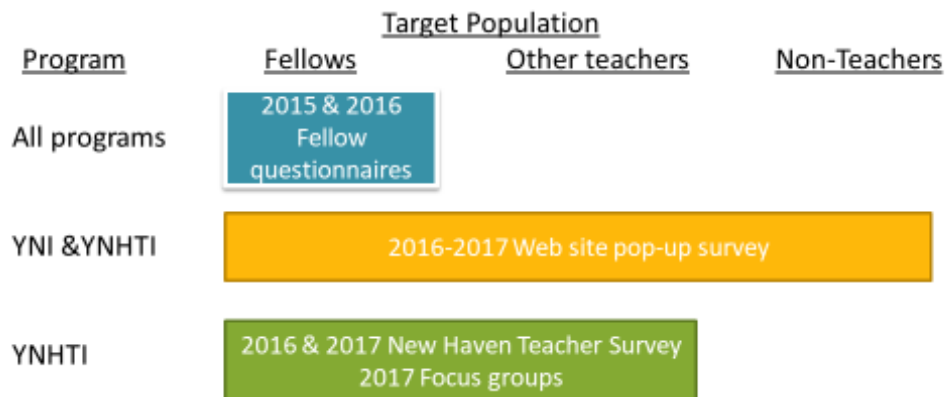
	Yale-New Haven Teachers Institute Web Site	Yale National Initiative Web Site
English and language arts	12%	52%
History and social sciences	48%	12%
Mathematics	24%	24%
Science	28%	12%
Elementary grades (K-5)	32%	28%
Middle grades (6-8)	60%	32%
Secondary grades (9-12)	52%	52%
Total number of units	25	25

Percentages add to more than 100% because units may address multiple subject areas and target students at multiple levels.

Data and Methods

Because access to Institute curriculum units is not tightly controlled or monitored, measuring unit use presents a substantial challenge. This study took a multi-pronged approach to gain insight into the extent to which and how Institute curriculum units are used:

Overview of Data Sources



YNI = Yale National Initiative
YNHTI = Yale-New Haven Teachers Institute

- **End-of-program questionnaires** completed by Fellows in all programs provide data on planned and actual use of their own curriculum units.
- Fellows, other teachers, and others who responded to a **Web site pop-up survey** provided information about their actual or planned use of Yale National Initiative and Yale-New Haven Teachers Institute curriculum units they viewed online.
- Fellows of the Yale-New Haven Teachers Institute who responded to the online **New Haven teacher survey** or participated in **focus groups** provided information on use of their own unit as well as their knowledge and use of other Teachers Institute curriculum units. Teachers in New Haven who were not Fellows provided information about their knowledge and use of Institute curriculum units.

These data sources are described in more detail below.

2015 and 2016 Fellow Questionnaires

Data are collected from all Fellows at the end of their seminars about their plans for implementing the curriculum unit they just completed. Fellow questionnaires are administered online using Qualtrics in all Teachers Institutes and the Yale National Initiative. Fellows must complete the questionnaire in order to receive their stipend, so all Fellows do so. The questionnaires used in each Institute ask the same questions, with adjustments that reflect differences in the program schedule and differences in subject areas of teacher certification in the states where Institutes are located.

Number of Fellows Who Completed Questionnaires at the End of 2015 and 2016⁴ Seminars

Program	2015		2016	
	All	Returning	All	Returning
Delaware Teachers Institute	53	28	50	29
Yale-New Haven Teachers Institute	31	20	33	19
Teachers Institute of Philadelphia	41	26	29	20
Yale National Initiative	62	23	52	21
Total	187	97	164	89

The Fellow questionnaires collect additional data from returning Fellows (teachers who have participated at least once before, not necessarily in the immediate previous year) about their use of curriculum units they wrote in their most recent previous seminar. Typically, in local Teachers Institutes one half to two thirds of Fellows are teachers who have participated in previous years. By design, a smaller proportion of Fellows participating in the Yale National Initiative are returning Fellows.

Returning Fellows may be a select group of teachers who found the Institute seminars especially valuable and had time to participate again. However, most Fellows report at the end of their seminar that they intend to participate again, and factors beyond commitment to the Institute or Initiative may affect Fellows' later decisions to return. Alignment of seminar offerings with the subjects or courses the Fellow teaches, the likelihood of a change in teaching assignment, and other factors may influence

⁴ Because the main questions about unit use ask about use of curriculum units written in previous seminars, the data used in this report came from Fellow questionnaires completed one year after the units selected for the systematic review of units featured in the companion report to this one.

participation decisions. Thus, it is difficult to assess how representative the experiences of returning Fellows in teaching their previous curriculum units are.

Survey of Web Site Users

Data were collected over a period of about 17 months in a pop-up survey on the Web site pages where users view Yale-New Haven Teachers Institute and Yale National Initiative curriculum units online.⁵ The brief survey included questions for teachers about their plans for using the unit(s) they were viewing (or their use of units, if they had viewed units online before). The survey asked Web site visitors who were not teachers about how they planned to use the materials they were viewing.

A very small proportion of Web site users responded to the pop-up survey. During the period of the survey (February 19, 2016 to July 4, 2017), the Web site of the Yale National Initiative received 461,914 visits and the Web site of the Yale-New Haven Teachers Institute received 3,120,945 visits. During the same period, 6,538 Web site users of both Web sites (0.2%) initiated the pop-up survey.

The responses to the pop-up survey document a level of unit use that sets a floor for the amount of use made of units accessed on the Yale-New Haven Teachers Institute and Yale National Initiative Web sites. Pop-up survey respondents are not necessarily representative of all Web site visitors, so the descriptive analyses presented in the following sections illustrate use of the curriculum units by teachers and others who find them on the Web sites.

More than half of the Web site users who responded to the pop-up survey were not teachers. Two thirds of the respondents to the Web site pop-up survey were students, parents, or other individuals looking for information or doing personal research. Many respondents were teachers, however; 2,249 out of 6,177 responses (36%) identified themselves as teachers.⁶

Teachers who responded to the Web site pop-up survey are diverse. Respondents include teachers from all grade levels (including postsecondary grades) and core subject areas. Approximately one third reported teaching in traditional public schools. They also came from diverse locations, including 44 states and the District of Columbia, as well as numerous countries in Europe, Asia, Africa, South America, and North America.

When you are finished viewing curriculum units on this Web site, please take a few minutes to provide feedback and help us understand how these units, which were created by public school teachers, are useful to others. THANK YOU — your feedback is very important to us!

[Give Feedback](#)

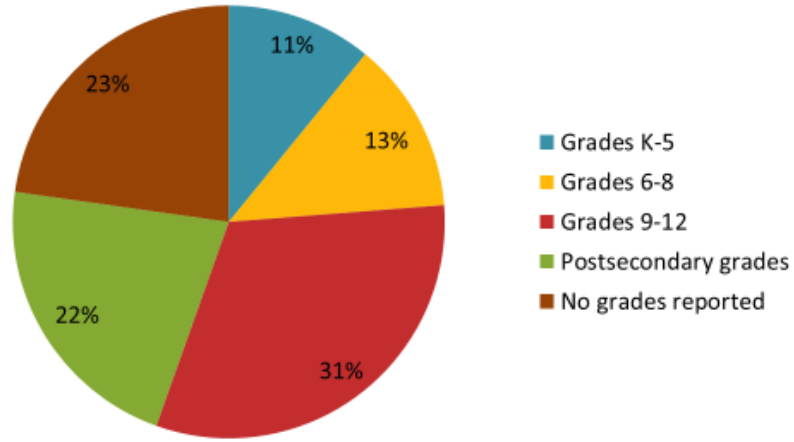
⁵ Viewers of Yale-New Haven Teachers Institute and Yale National Initiative curriculum units online were presented with a box to the right of the curriculum unit text (Yale National Initiative Web site) or at the top of the page (Yale-New Haven Teachers Institute Web site) that invited them to click a link to complete the survey. The text in the box said:

When you are finished viewing curriculum units on this Web site, please take a few minutes to provide feedback and help us understand how these units, which were created by public school teachers, are useful to others. THANK YOU — your feedback is very important to us!

Under the text was a GIVE FEEDBACK link to the survey.

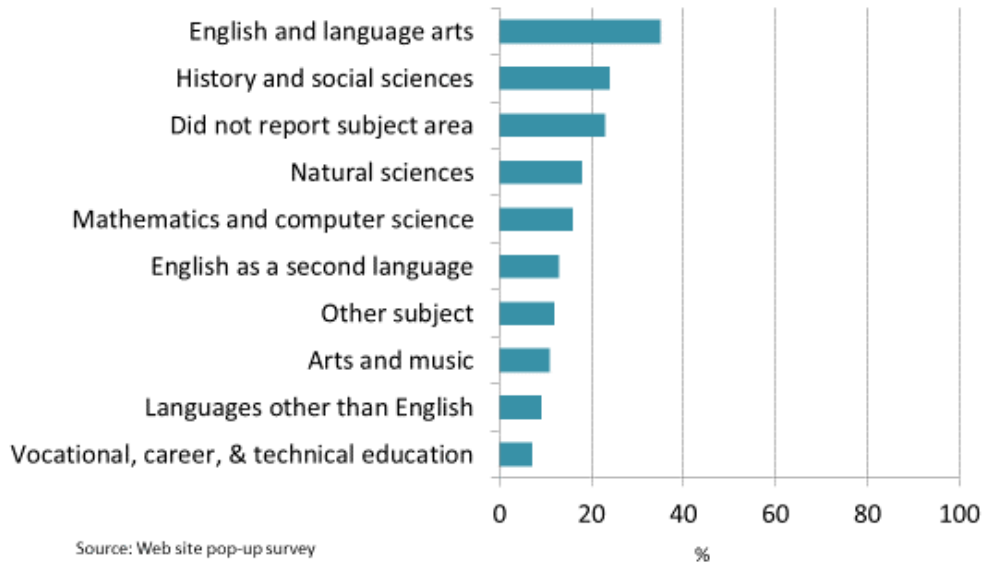
⁶ Of the 6,538 Web site visitors who went to the pop-up survey during the study period, 325 did not answer any questions and were deleted from the data. In addition, 36 entered offensive or nonsense language, often with a pattern of other responses that indicated that they were not providing an authentic response to the survey, and these responses were also deleted from the data. 6,177 responses remained in the dataset for analysis.

Grade Levels of Teachers Who Responded to the Web Site Pop-up Survey



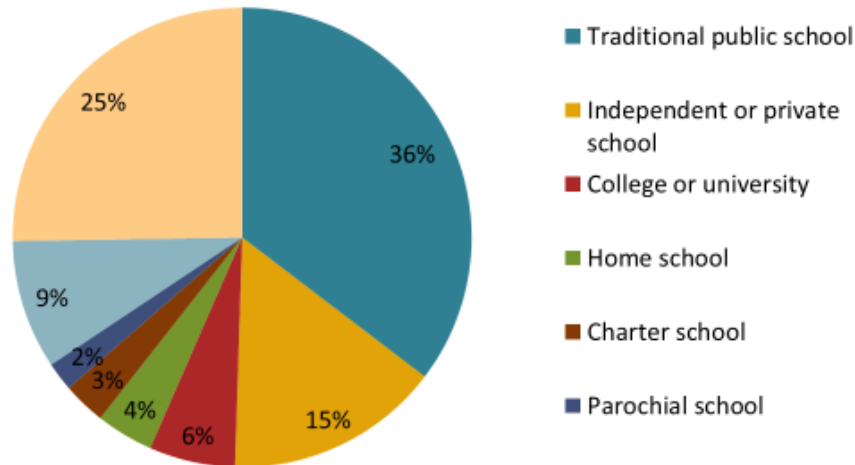
Source: Web site pop-up survey

Subject Areas in Which Teachers Who Responded to the Web Site Pop-up Survey Teach



Source: Web site pop-up survey

Type of School in Which Teachers who Responded to the Web Site Pop-up Survey Teach



Source: Web site pop-up survey

Survey of Teachers in New Haven Public Schools

To learn about the use of Institute curriculum units by teachers in the school district where the Yale-New Haven Teachers Institute operates, an online survey of teachers (both Fellows and other teachers of core subjects) in New Haven schools was administered in 2016 and 2017. The survey focused on teachers of core subjects, because these are the teachers for whom the Institute has developed curricular materials.

In each year, lists of the names and email addresses of teachers in core subjects (who would be eligible for the Yale-New Haven Teachers Institute) were compiled from school information online, by teachers on the Institute Steering Committee, and from master lists developed for Institute recruiting.⁷ The lists include teachers regardless of whether they had ever participated in the Yale-New Haven Teachers Institute.

The survey results cannot be generalized to all New Haven public schools, but a substantial portion of district schools are represented in the sample. New Haven Public Schools includes 31 elementary/middle/K-8 schools, 9 high schools, and 5 transitional schools.⁸ Eight schools are not included in the sample in any way. Full lists of teachers were compiled in both years for 10 schools. Full lists of teachers were compiled in at least one of the years for 21 elementary/middle/K-8 schools and 8 high schools (64% of the schools).⁹

⁷ The master lists are compiled in many New Haven schools by teachers who represent their colleagues. The lists include all teachers who by virtue of the grade levels or subjects they teach in the humanities and STEM fields are eligible for seminars offered by the Yale-New Haven Teachers Institute.

⁸ <http://www.nhps.net/schools>

⁹ In some schools, contact information was available only for former Fellows.

The survey was administered online using Qualtrics in June 2016 and early May 2017. To encourage participation, teachers who completed the survey received a \$25 gift certificate, and in schools where at least 70% of eligible teachers completed the survey, the school received a pizza party for all teachers in the school. In some schools, the Teachers Institute’s Teacher Representative or Teacher Contact encouraged teachers to complete the survey.

Number of Teachers Who Completed the New Haven Teacher Survey in 2016 and 2017

	2016	2017
Total number of teachers	596	602
Number of teachers who responded to the survey	222	323
Response rate	37%	54%

The survey response rate was higher in 2017 than 2016. In 2016, the survey was administered late in the school year, and the school district was also conducting an online survey during the same period. These factors may have limited response rates to the survey. In 2017, the survey was administered earlier in the spring and timed to avoid other district activities that might limit teacher participation.

Response rates varied widely across schools. In schools where all teachers were surveyed, response rates ranged from 13% to 95% in 2016 and 32% to 88% in 2017.

Focus Groups and Qualitative Survey Responses

The quantitative data from end-of-program Fellow questionnaires and the Web site pop-up survey were supplemented with qualitative data collected in focus groups with Yale-New Haven Teachers Institute Fellows and other New Haven teachers. Three groups were formed: (1) experienced Fellows, who had participated one or more times at least five years ago; (2) newer Fellows, who first participated in the Teachers Institute within the last five years; and (3) other teachers who were not Fellows. Teachers in the Yale-New Haven Teachers Institute leadership helped identify and recruit potential focus group participants.

Eight to 10 teachers participated in each group discussion. A total of 28 teachers from 16 schools attended the focus groups.

A professional focus group moderator led each discussion using a discussion guide to ensure that each discussion addressed the topics on which information was sought. The teachers who attended received a \$100 amazon.com gift card in appreciation for their time.

A diverse group of teachers attended the focus groups. Fifteen focus group participants were high school teachers, and 13 were teachers in elementary and middle grades. Eight participants were teaching in the English and language arts area, 11 were teaching in the science or math areas, and nine were teaching in other subject areas or were elementary teachers who were teaching in all subject areas. Participants’ experience ranged from 3 to 41 years in teaching. Although the focus group participants are not statistically representative of any larger group of teachers, their diversity suggests that a wide range of experiences and viewpoints informed the discussions.

The discussions were audiotaped, and transcripts of the discussions were analyzed to identify themes and quotes to illustrate them. Qualitative analysis software (Atlas.ti) was used to analyze the transcripts.

Nearly All Fellows Use the Curriculum Units They Write

As part of the application process, teachers must obtain their principal's agreement that they will be assigned a course or grade level in which they can teach the unit they will be developing. At the end of their seminar, nearly all Fellows reported that they planned to implement their curriculum unit, almost all in the coming school year.

Nearly all returning Fellows in the local Institutes and the Yale National Initiative in 2015 and 2016 (93%) reported that they had used the unit they wrote in their most recent previous seminar. Those who did not were not able to use their unit because their teaching assignment changed, or the unit was not appropriate for the students they were assigned to teach.

Similarly, only 10% of New Haven Fellows who responded to the online teacher survey in 2016 or 2017 reported that they were unable to use the unit they wrote most recently. Most often a change in teaching assignment prevented them from using it, but a few were unable to fit their unit into their schedule, and a few cited other reasons.

Institute Curriculum Units are Also Used by Others

While the challenges of collecting representative data on unit use by other teachers are daunting and it is not possible to document the extent of Teachers Institute unit use by other teachers with confidence, it is possible to show that Institute units are being used by many other teachers, both in a school district where an established Teachers Institute operates (New Haven Public Schools) and throughout the United States and even in other countries.

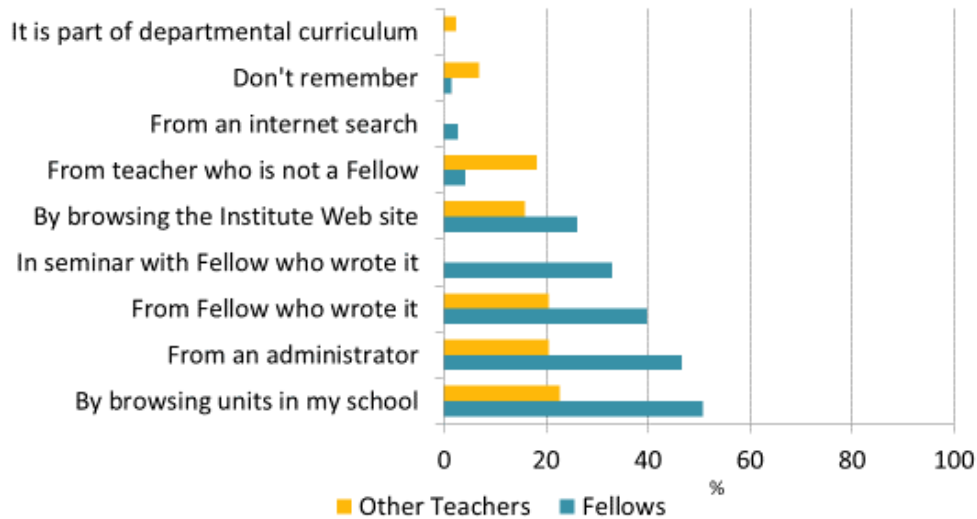
Many Institute Fellows in New Haven Use Units by Other Fellows

It is common for Fellows to use units written by other Fellows. Currently, in New Haven, CT, where a long-established Teachers Institute operates, half of the Fellows who responded to the online teacher survey had used units written by other Fellows. Data collected earlier during a multisite National Demonstration Project found that about one quarter of Fellows had used other Teachers Institute units (Smith 2004). Earlier surveys found that most Fellows had used units written by other Fellows (90% in 1982 and 96% in 1987; Yale-New Haven Teachers Institute 1992).

Fellows learned of units by other Fellows in multiple ways. About half learned of the units they had used by browsing units compiled into volumes for each seminar and placed in their school. Nearly half learned of units from a school administrator. Many (40%) learned of the units they had used from the Fellows who wrote them or in a seminar with the Fellow who wrote the unit (33%). One quarter of Fellows learned of units they had used by browsing the Institute Web site or from a Fellow other than the one who wrote the unit.

I've used mine quite a bit and have recommended it to other people. Someone asked me about Amistad, and I told them, hey, let me show you this lesson. (Experienced Fellow)

How Teachers Who Had Used an Institute Curriculum Unit Learned About the Units They Used



Source: 2016-2017 Survey of New Haven Teachers
 Note: Percentages may sum to more than 100% because units may be used in multiple ways.

A Small Percentage of Other Teachers in the New Haven School District Reported Using Institute Curriculum Units

In school districts with Teachers Institutes, Fellows often share the curriculum units they write with their colleagues. At the end of their seminar, most Fellows reported that they planned to share their unit with another teacher, and those that planned to share their unit, planned to share it with four other teachers, on average.

It appears to be much less common for other teachers to use units written by Fellows. Approximately 11% of New Haven teachers who responded to the online teacher survey and had never been Fellows reported ever using an Institute curriculum unit.

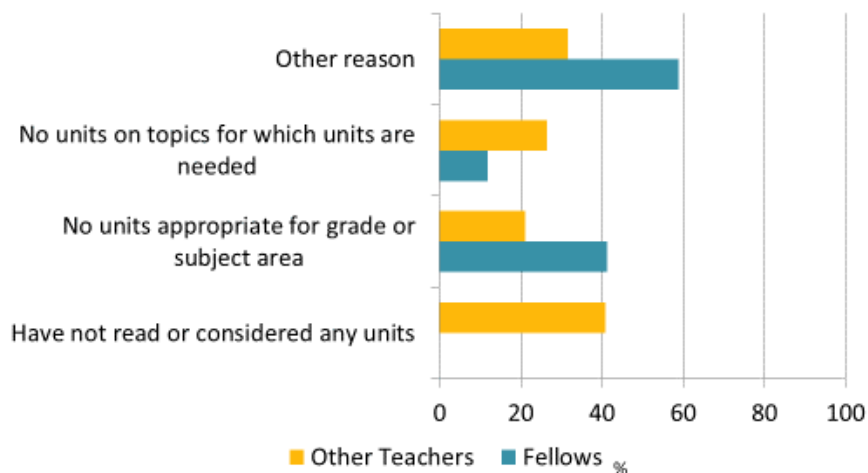
Current use of Institute curriculum units by other New Haven teachers is lower than it has been in the past. In 1982, when Fellows often presented the units they wrote to their colleagues in city-wide in-service workshops, 41% of other teachers reported that they had used an Institute curriculum unit. By 1987, after the city-wide workshops ended, only 22% of other teachers reported that they had used an Institute curriculum unit (1992 Progress Report).

Those New Haven teachers who had used an Institute or Initiative curriculum unit but had not been a Fellow learned of the units they had used in multiple ways. One third learned of units from a Fellow other than the one who wrote the units, and 20% learned of units from the Fellows who wrote them. About one fifth of other teachers learned of Institute units they had used by browsing units placed in their school (23%), from an administrator (20%), or from a teacher who is not a Fellow (18%).

Lack of awareness is an important factor contributing to the low usage by other teachers. Among other teachers who have ever used any curriculum materials written by other teachers in the district and might use Institute units, 55% reported being unaware of the Institute curriculum units.

Among the New Haven teachers who were aware of Institute curriculum units but had not used any, the reasons varied. One third of these teachers had not read or considered using any units, one quarter reported that the Institute units were not appropriate for their grade or subject areas, and one quarter reported that there were no units on topics for which they needed curriculum units. The teachers who reported that there were no units appropriate for their grade or subject area and the teachers who reported there were no units on topics for which they needed units were more likely to teach at the elementary level and more likely to teach mathematics or science. Among the teachers who were not Fellows, 41% had not read or considered any units.

Reasons That Teachers Who Were Aware of Institute Units Had Not Used Any



Source: 2016-2017 Survey of New Haven Teachers

Some teachers who were aware of Institute curriculum units gave other reasons for not using them. Some of these teachers indicated that they are required to use district curriculum materials and don't have the flexibility or time to use other curriculum materials. Others indicated that many Institute units are not well-aligned with the curriculum or students they teach. Some indicated that the Institute units can't be implemented quickly; they have good content but not enough practical teaching strategies.

In a focus group, one New Haven math teacher who had not been a Fellow explained the difficulty of using Institute units:

"I would go through and I would read things I thought might apply. Then, it was either too long or you ran smack into the fact of what is this and how does it fit with my curriculum? From a math standpoint, you would go through and something just didn't fit that niche you were looking for. And with the teaching block and time issues, you have to worry about how long is this going to take. It just got too complicated to make it fit and make it work."

Approaching the Institute curriculum units with inappropriate expectations may account for some lack of use by other teachers. A National Fellow noted in an informal discussion that “the term ‘unit’ is confusing and sets the wrong expectation” and suggested providing “a ‘how to use this resource’ so teachers don’t search for lesson plans, daily plans.”

The Web Survey Identified Many Teachers Who Viewed and Planned to Use Institute or Initiative Curriculum Units

Three quarters of teachers who viewed at least one curriculum unit online and responded to the Web site pop-up survey reported that they planned to use the curriculum materials they viewed. Although the high proportion of teachers planning to use the materials they viewed may be biased upward, the survey shows that at least 100 teachers per month visited the Web sites and planned to use curriculum materials they viewed.

Web Site Visitors Who Were Not Teachers Also Reported Using Institute Curriculum Units

Beyond teachers, other people who encounter Institute and Initiative curriculum units online find them useful. Nearly two thirds of Web site users who responded to the Web site pop-up survey were not teachers. The survey asked these respondents about their reasons for reading units on the Web site. The responses given most often were to learn about a subject in which the respondent was interested (33%) and to identify other resources about the subject matter that may be useful (21%).

Some of the Web site pop-up survey respondents who were not teachers were students consulting units for help with a class assignment or research project or to study for a test. Other Web site pop-up survey

respondents who were not teachers were individuals conducting personal research (such as genealogy research) or reading about a topic of interest.

I’m a student in tenth grade and this has been very good information to help me answer difficult questions for an assignment in my world history class...

We homeschool our children and needed a lesson on community.

To help provide material and resources for my child’s preschool program conducted at a church to diversify their curriculum.

To help my grandchild at the high school level.

Some Web site pop-up survey respondents who were not teachers were individuals searching for specific information or engaged in life-long learning. Others were looking for help in fulfilling a particular role or responsibility. Some Web site users who did not identify themselves as teachers nevertheless described using curriculum units in a teaching role as a parent, volunteer, or museum official.

Fellows and Other Teachers in New Haven Use Curriculum Units in Multiple Ways

Teachers may use Institute curriculum units in a variety of ways ranging from teaching the unit as written to reading units to gain knowledge of the topic, get ideas for how to teach it, or identify other resources that may be useful in learning about the topic or teaching it.

New Haven Fellows Use Their Own Units in Multiple Ways

Nearly half (49%) of the New Haven Fellows who responded to the online survey reported that they had implemented the unit they wrote most recently as written. Consistent with plans to continue working

on their units at the end of their seminar, however, half of New Haven Fellows who responded to the online survey implemented their most recent units with adaptations.

The types of adaptations described by these Fellows vary. For example, adaptations include rearranging the unit to fit the curriculum, implementing parts of the unit at various times, adapting the unit for a different grade or to differentiate instruction, or supplementing the unit to fit the needs of particular classes. Sometimes adaptations were made to pacing or activities based on experience teaching the unit or in response to student interest while teaching the unit.

I adjusted for time and for the needs of my students in that particular class. Adaptations included focusing on just one part of the unit or adding in components. (New Haven Fellow)

New Haven Fellows who responded to the survey also used their curriculum units in other ways. More than half (57%) indicated that they used the teaching strategies from their most recent unit in teaching their existing curriculum, and 41% used the content of their unit to prepare for teaching with other curriculum materials.

Some Fellows who participated in focus groups noted that what they used was the background research and deeper understanding of the topic that they gained in their seminar and from writing their unit. One newer Fellow said:

“What I used when I taught the next year was all of the deeper understanding and context I had gained as part of the session...I was able to think through it for so much longer than I would have otherwise.”

Fellows in the focus groups also described how they continue developing and using their units. One experienced Fellow reported:

“There’s been some unevenness [across years/units] for me, but I am really excited... this year it’s actually been turned into a half-year course... It’s a film class that is taken by reluctant readers and reluctant writers to use their composition skills to take away the barrier of written text. That’s a unit that got picked up as an entire half-year course.”

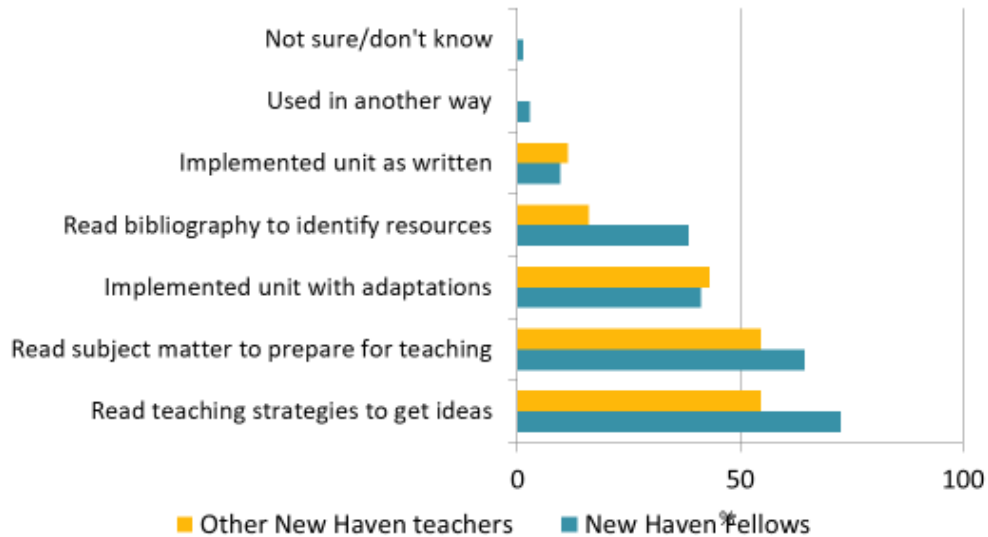
In an informal discussion with National Fellows, one Fellow said:

“When I use my unit, I am never happy with it. I throw things out if they don’t work well in practice, or if I get better ideas. The unit is a living document...”

New Haven Fellows Use Units Written by Other Fellows in Different Ways

New Haven Fellows are much less likely to implement units written by other Fellows as written. Only 10% of Fellows implemented the most recent unit by another Fellow as written, compared with 49% who implemented their own most recent unit as written. Instead, New Haven Fellows were most likely to read the description of teaching strategies to get ideas for teaching (73%) or to read the summary of subject matter in other Fellows’ units to prepare for teaching (64%). Many also reported that they implemented the most recent unit written by another Fellow with adaptations (41%) or read the

How Fellows and Other Teachers Used the Most Recent Institute Unit They Used



Source: 2016-2017 Survey of New Haven Teachers

Note: Percentages may sum to more than 100% because units may be used in multiple ways.

bibliography to identify other resources (38%). The adaptations made to Institute curriculum units by Fellows when using someone else’s unit resembled those Fellows made to their own units.

In contrast to materials that can be searched quickly for material or activities to use right away, some New Haven Fellows who participated in focus groups noted that it takes time to read and use Institute curriculum units. One experienced Fellow said:

“It does take time to go through and read what’s there. People put a lot of work into what’s there. You have to really read deeply to use what’s there. You really have to get immersed into it to be able to use it and teach it.”

In a discussion with National Fellows about using Institute curriculum units, one National Fellow said:

“[Unit] users have to do work. It would be useful to have instructions, maybe a web video, on how to use units.”

Other New Haven Teachers Use Institute Units in Varied Ways

Like Fellows using other Fellows’ units, other New Haven teachers who responded to the online survey and had used an Institute curriculum unit were most likely to report that they had read the description of teaching strategies to get ideas for teaching (55%) or read the summary of subject matter to prepare for teaching (55%). A substantial proportion (43%) had implemented the unit with adaptations (43%) and some read the bibliography to identify other resources (16%). Approximately 11% of other New Haven teachers who had used an Institute curriculum unit implemented it as written.

In the survey, one teacher who used Institute units noted that the constraints of the school district curriculum limited use of the Institute units:

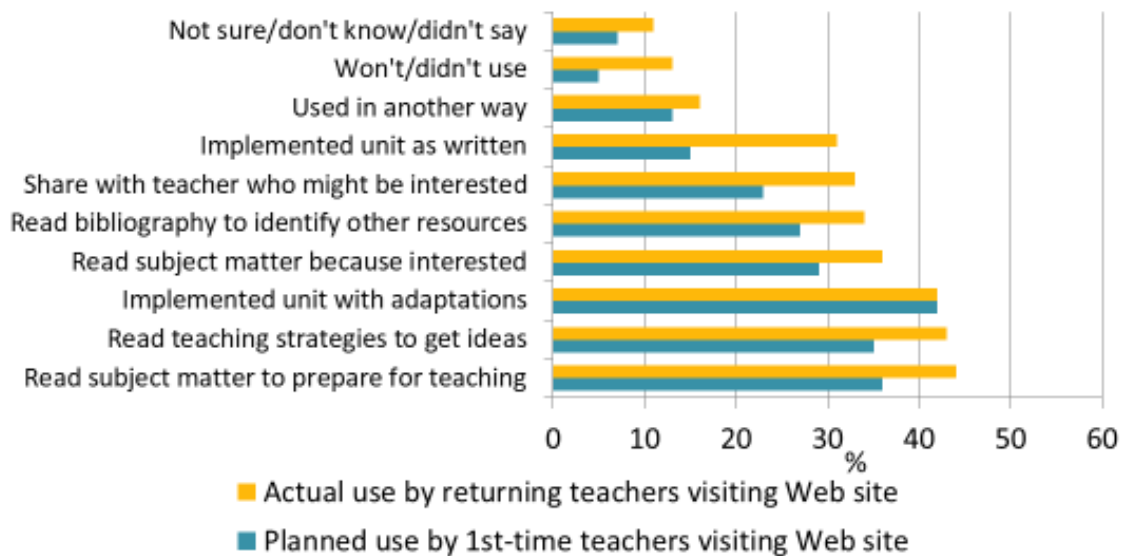
“I mainly focused on source material. The text within the units was great, but much had to be modified because of difficulty. The New Haven Curriculum at the time did not allow for too much deviation.”

Teachers Who Viewed Institute Units Online Also Used Them in Multiple Ways

Teachers who responded to the Web site pop-up survey and were planning to use the unit they were viewing were most likely to report that they planned to implement the unit with adaptations (42%). Many planned to read the subject matter in the unit to prepare for teaching (36%) or to read the teaching strategies in the units to get ideas for teaching (35%). One quarter of the teachers planned to read the subject matter because they were interested in it, and a similar proportion planned to read the bibliography to identify other resources he or she could use. Approximately 15% planned to implement the unit as written.

Some teachers who responded to the Web site pop-up survey had viewed Institute curriculum units online before. Most of these teachers (87%) had used the units they viewed in some way. These teachers were most likely to report that they read the subject matter in the unit to prepare for teaching (44%), read the teaching strategies in the units to get ideas for teaching (43%), or implemented the unit with adaptations (42%). More than one third reported that they had read the subject matter because

How New and Returning Web Site Users (Teachers Only) Used the Most Recent Institute Unit They Used



Source: Web site pop-up survey
 Percentages may sum to more than 100% because units may be used in multiple ways.

they were interested in it (36%) or read the bibliography to identify other resources they could use (34%). Nearly one third of the teachers who had viewed Institute units online before (31%) had implemented units they viewed before as written.

Most Unit Users Are Satisfied with the Units They Used

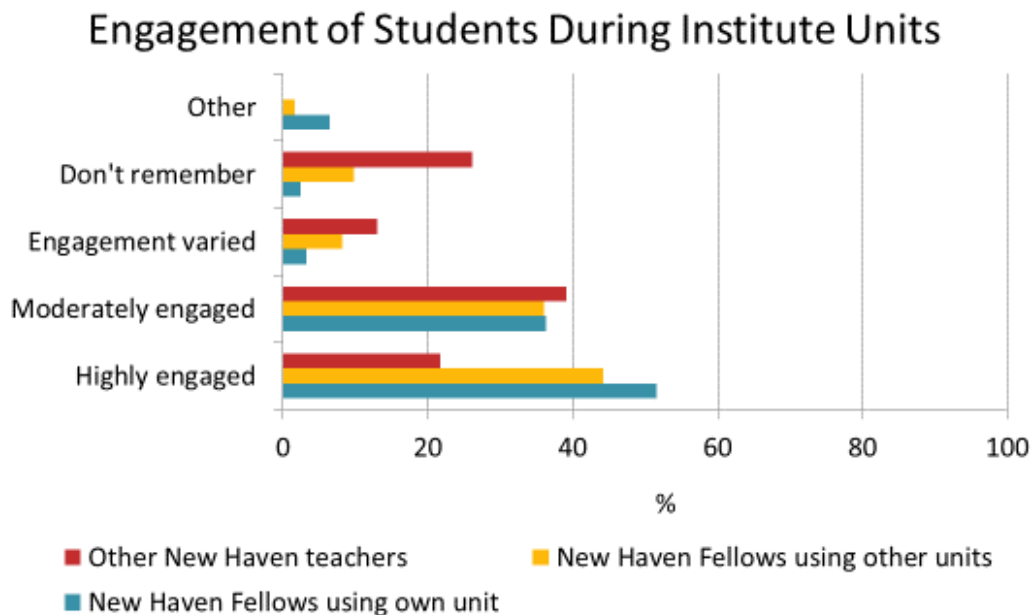
Like Fellows in the past, Fellows and other teachers in New Haven who have used Institute curriculum units expressed a high degree of satisfaction with them. Over half of Fellows participating in the National Demonstration Project, for example, agreed that Institute curriculum units are very useful, and most of the remaining Fellows (41%) reported that they are somewhat useful (Smith 2004).

Students are Usually Highly or Moderately Engaged During Institute Units

Student engagement when Institute curriculum units are implemented by Fellows who wrote them is high. Slightly more than half of New Haven Fellows who responded to the online survey (52%) and had implemented their most recent unit as written or with adaptations indicated that students were highly engaged during the unit, and more than one third (36%) indicated that students were moderately engaged during the unit.

I am usually looking for new strategies to engage students. Some Institute units emphasize student engagement, and these are most helpful to me. (New Haven teacher)

Student engagement when Fellows implement Institute curriculum units by other Fellows is also high. Slightly more than half (58%) of New Haven Fellows who responded to the online survey and had implemented the unit they used most recently as written or with adaptations indicated that students



Source: 2016-2017 Survey of New Haven Teachers

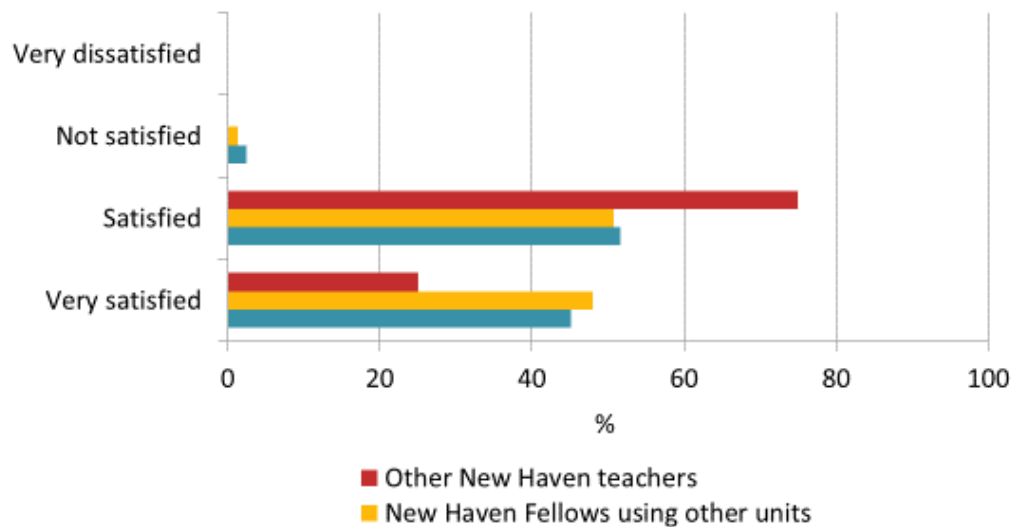
were highly engaged during the unit, and more than one third (34%) indicated that students were moderately engaged during the unit.

Other teachers implementing Institute curriculum units reported less student engagement. Slightly more than one fifth (22%) of other New Haven teachers who responded to the online survey and had implemented an Institute curriculum unit as written or with adaptations indicated that students were highly engaged during the unit, and more than one third (39%) indicated that students were moderately engaged during the unit. Many did not remember, and some indicated that engagement varied.

New Haven Fellows and Other Teachers Were Satisfied with the Unit They Used and Planned to Use It Again

Most New Haven Fellows and other teachers who had used Institute curriculum units reported satisfaction with them. Very few were not satisfied. Nearly all Fellows who responded to the online survey and had implemented their units as written or with adaptations (97%) were satisfied with their unit. In fact, 45% were very satisfied. Similarly, nearly all New Haven Fellows who responded to the online survey and had implemented units by other Fellows as written or with adaptations (99%) were satisfied with the unit; 48% were very satisfied. Other New Haven teachers who responded to the online survey and had implemented units by Fellows as written or with adaptations were also satisfied with the most recent unit they had used. Fewer, however, reported that they were very satisfied (25%).

Satisfaction with Institute Units Among Teachers Who Implemented Them as Written or With Adaptations



Source: 2016-2017 Survey of New Haven Teachers

Satisfaction with units is evident in teachers' plans to continue using the units. Nearly all Fellows and other teachers in New Haven who responded to the online survey and had implemented their

I have had nothing but positive experiences using Institute units. The students have always responded positively, and the work produced from them has been exceptional. The background information provided by the author of the units has always been enough, if not more than what I needed. (New Haven teacher)

own or other Institute units as written or with adaptations planned to implement the unit they used again. Among the few teachers who did not plan to use the unit again, the reasons included not teaching the subject again, no longer having enough time in the curriculum to use it, and a preference for using other materials.

New Haven Teachers Reported That Institute Units Compare Favorably with Commercial Curriculum

Past research suggests that many Fellows compare Institute units favorably to the commercial curriculum they have used. During the National Demonstration Project, more than half of Fellows rated student attention, motivation, and interest as higher during Institute units than during other work. Similarly, half of Fellows rated student mastery of content higher during Institute units. Two thirds of the Fellows participating in the National Demonstration Project rated Institute units written by themselves and other Fellows as superior to other types of curriculum they had used.

Earlier surveys in 1982 and 1987 showed that approximately one fourth to one third of both Fellows and other teachers in New Haven rated student attention, motivation, interest, and mastery of content as higher during Institute curriculum units, and none rated these lower compared with commercially prepared curriculum available to them (1992 Progress Report).

Preparation Time Required by Institute and Commercial Curriculum Units is Often Comparable

According to teachers who have used them, Institute curriculum units usually require as much or more preparation time than commercial curriculum units. About half of New Haven teachers who have used Institute curriculum units reported that they require about the same preparation time as commercially prepared curriculum units they have used. One quarter reported that Institute units require more preparation time, while 13% reported that they require less preparation time.

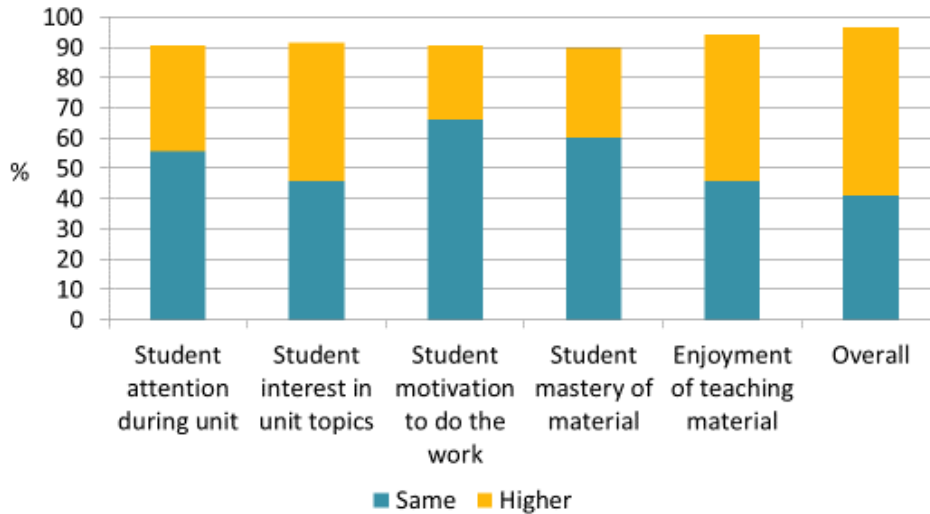
Although the Institute curriculum units can take more time, some teachers feel the trade-offs are worthwhile. For example, one New Haven teacher said:

“I think the curriculum units are a good resource for preparing to teach a unit that I may be unfamiliar with. I read the narrative as a way to inform myself. The ‘lessons’ aren’t as helpful, because they may not fit the resources/materials at my school or are only suggestions of activities without the actual handout documents. In those cases, I might take an idea and create my own assignment. This takes some time that other commercial units might not require. However, the background information is better in the Yale units.”

Institute Units Elicit Greater Student Attention, Interest, Motivation, and Mastery than Commercial Curriculum Units

Slightly more than one third of New Haven teachers who responded to the online survey and had used Institute units (35%) reported that student attention was higher during the Institute unit than during

Institute Curriculum Units Compared With Commercial Curriculum Materials



Source: 2016-17 Survey of New Haven Teachers

commercially prepared curriculum units they had used. Half of Fellows reported higher student attention during Institute units, while 12% of other teachers experienced higher student attention during Institute units.

Nearly half of New Haven teachers who responded to the online survey and had used Institute units reported that student interest in the topics was higher during the Institute units than during commercially prepared curriculum units they had used. More than half of Fellows (60%) and one quarter of other teachers (24%) who had used Institute units reported higher student interest in Institute units compared with commercial curriculum materials they had used.

I found that the units contained rigor and caused students to think and reflect in ways that they are unaccustomed to with the current curriculum. (New Haven teacher)

One quarter of New Haven teachers who responded to the online survey and had used Institute units reported that student motivation to do the work was higher during the Institute units than during commercially prepared curriculum units they had used. One third of Fellows (34%) reported higher student motivation to do the work during Institute units, while 10% of other teachers reported higher student motivation during Institute units.

Nearly one third of New Haven teachers who responded to the online survey and had used Institute units (30%) reported that student mastery was higher during the Institute units than during commercially prepared curriculum units they had used. Again, Fellows were more likely than other New Haven teachers to report higher student mastery during Institute units (44% compared with 7%).

Many New Haven Teachers Found Institute Curriculum Units More Enjoyable to Teach than Commercial Units They Had Used

Nearly half of New Haven teachers who responded to the online survey and had used Institute units (49%) reported that they enjoyed teaching the material in Institute units more than the material in commercially prepared units they had used. Fellows were more likely than other New Haven teachers to report that teaching Institute curriculum units was more enjoyable than teaching commercially prepared curriculum (59% compared with 31%).

Overall, Many Teachers Found Institute Curriculum Units to be Superior to Commercial Curriculum Units They Had Used

More than half of New Haven teachers who responded to the online survey and had used Institute units (56%) reported that Institute curriculum units were superior to commercially prepared curriculum units they had used. Nearly all of the remaining teachers reported that Institute and commercially prepared curriculum units were comparable. Fellows were more likely than other New Haven teachers to report that Institute curriculum units were superior to commercially prepared curriculum they had used (62% compared with 41%).

While many teachers indicated that Institute units are comparable to commercially prepared units they have used, this didn't necessarily mean that they viewed them in the same way:

“The Institute curriculum units are not better or worse than commercially prepared units they are just different. Commercially prepared materials don't require a lot of prep work or thinking from the teacher. Institute units require the teacher to think though the material.”

Interest Expressed by New Haven Teachers Suggests that More Use of Institute Curriculum Units Could Be Encouraged

The online survey of teachers in New Haven results suggest that more teachers might use Institute curriculum units if they knew about them. Most of the teachers who either had not used curriculum written by another teacher in the school or district or had used curriculum written by another teacher but were not aware of Institute units indicated that they were moderately or very interested in learning about curriculum units created by Fellows. Two thirds (64%) were moderately interested, and slightly more than one quarter (27%) were very interested. Less than 10% were not interested in learning about Institute curriculum units.

All New Haven teachers who responded to the online survey were asked about the likelihood that they would use Institute curriculum units in the future, and most responded that they were moderately or very likely to use Institute units in the future. Only 11% said it was not likely that they would use Institute units in the future.

Making Institute curriculum units more accessible may be necessary to encourage more use of the units. Some participants in the New Haven focus groups and the online New Haven teacher survey noted that Institute units are hard to find:

“You can do a search. When you submit [your unit], you have to insert “tags” for it. So, you can theoretically search by tag, but I still find it difficult to search for things. The site itself is just old-looking, and it's cumbersome to use.”

“Other resources are organized by grade-level, lesson plans, activities that you can quickly grab and use in the classroom. The [Institute] units aren't easy to find.”

“I would be interested in reviewing a cross-tabbed index of available units organized by major subject topic and including brief abstract summaries. The current Web site is unwieldy and takes too much time to drill down to find units applicable to a desired topic.”

Some New Haven teachers who completed the online survey suggested advertising the Institute curriculum units more and presenting the units in a more attractive way:

“The curriculum units need to be better advertised through one-on-one or small group meetings done by representatives or previous/current Fellows.”

“If the units were more user-friendly and colorful, they might truly grasp teachers’ attention. Sounds so trite and yet, it matters. Judging a book by its cover but that is the way it works, I believe.”

Providing information about Institute units’ alignment with or relevance to district curriculum and standards might also facilitate more use of Institute units. In the survey, several teachers described how alignment with district curriculum and standards is important or said they needed to know more about alignment before using Institute curriculum units:

“More clear collaboration between the district, departments, and Yale could lead to greater inclusion of curriculum work in the district with teachers who don’t create the units.”

“I must say that state standards now drive instruction, and I feel that administration needs to be alerted to the ways Institute materials can enrich student experience. Alignment to current standards somewhere highlighted would be helpful.”

“I am interested in how these curriculum units will fit in or enhance New Haven’s current curriculum.”

Any effort to encourage more use of Institute curriculum units should consider teachers’ time. Limited preparation time may limit teachers’ ability to find and use Institute units:

“Today, teachers are swimming in available resources. Between the district curriculum units and assessments, the Choices Program curriculum, and units and lessons from SHEG, the materials are available. It is finding the time within our planning and teaching time to learn how to best use these or any other materials.”

“No teacher has time to go through a document that is 25+ pages long to decide if they want to use a unit or not.”

“Teachers’ prep time is so limited that materials must be in a form to print out and use without a great deal of modification.”

Summary and Conclusions

Curriculum units forge a strong link between Institute seminars and teachers’ classrooms. Nearly all Fellows use the units they write in the Teachers Institute, sharing what they learned in their seminar with their students. Many Fellows also use units written by other Fellows.

Other teachers use Institute curriculum units, too. While the extent of use is uncertain, the study found that in New Haven, CT, where there is a school district with an established Teachers Institute, a small proportion of other teachers had used Institute units. A Web pop-up survey also identified a substantial number of teachers across the United States and around the world who had used or planned to use the Institute curriculum units they found online.

Institute curriculum units are used in a variety of ways. Fellows are most likely to implement their own units as written. They and other teachers are more likely to implement other Institute curriculum units with adaptations or to read certain portions of the units to get ideas or prepare for teaching their own curriculum.

Institute curriculum units are well-regarded. In New Haven, where there is an established Teachers Institute, unit users were satisfied with the units they had used and nearly all planned to implement the unit again. Fellows and other teachers in New Haven who had used Institute curriculum units reported that they compare favorably to commercial curriculum materials they had used.

It may be possible to encourage greater use of Teachers Institute curriculum units by advertising their existence and making it easier to access them. Many teachers who had not used Institute curriculum units indicated an interest in learning more about them.

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