Disciplinary Commons Follow-Up Survey
Evaluation Report

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# BAckground

*Disciplinary Commons* is an NSF-funded project designed to encourage educators within the field of computing science to reflect together about their teaching practices, develop a community, and, more broadly, to become more scholarly about their teaching. In monthly half-day meetings, educators teaching the same class (but perhaps at different institutions) meet over the course of one academic year to develop a course-specific portfolio and to discuss a set of teaching-related topics through the discipline-specific lens of computing education.

The first iteration of the project was completed during the 2005-2006 academy year, with one *Disciplinary Commons* held in the Puget Sound region of the U.S. and one in the United Kingdom. NSF has provided support for another iteration in a different region of the U.S. during the current (2009-2010) academic year.

The University of Washington Office of Education Assessment (OEA) has been engaged as an evaluator on this project, to understand more about the experience *Disciplinary Commons* participants and to evaluate the short- and long-term impact of the program. This report summarizes results from a follow-up, online survey conducted with the two 2005-2006 cohorts in Fall of 2009.

# methods & Participants

Facilitators of the 2005-2006 *Disciplinary Commons* provided OEA with 28 email addresses of past participants (Ten from the U.S. cohort and 18 from the U.K. cohort). OEA sent email invitations to all participants, and five (2 U.S. and 3 U.K.) were bounced back, with no forwarding information available. Of the 23 participants successfully contacted, 17 responded to the online survey, a 74% response rate (7 of 8, or 88% for U.S., 10 of 15 or 67% for U.K.).

Surveys consisted of 17 questions in four sections: (1) Your Portfolio and Current Teaching; (2) Community of Practice; (3) Reflection on Teaching Practices; and (4) Your Disciplinary Commons Experience. Questions were almost identical for both cohorts, except that wording was altered slightly for to accommodate different language use in the U.S. and U.K. In this document, items are reported according to the U.S. wording, and Appendix A includes the U.S. version of the survey in its entirety.

# Summary of Results

This section provides a brief summary of results based on the evaluator’s interpretation of the data. Please see Appendix B for detailed, descriptive findings from all survey items, as well as comparisons across both cohorts.

## A. Engagement in Scholarly Work

In general, participants were experienced teachers, with 13 of 17 (77%) indicating they had taught the course for which they developing a portfolio at least three times previously. They also engaged in a considerable amount of reflection about their teaching (100% indicated reflecting on their own teaching at least several times each term), and 10 of 17 (58.9%) indicated changing their teaching practices at least once per term based on these reflections. In addition, approximately half of participants (9 of 17, 52.9%) reported they had observed others’ teaching in order to learn more about their own teaching or get new ideas, as opposed to doing so to fulfill a requirement.

A good portion of these participants were also more deeply involved in scholarly teaching work, with 15 of 17 (88.2%) indicating they “read scholarly work in the teaching discipline” at least once per term. In addition, 11 of 17 (64.7%) indicated having published or presented scholarly work on computing education.

It should be noted that, scholarly work on teaching does seem to be peripheral to participants’ professional work, with all but one participant (94.1%) indicating that they spent 20% or less of their professional work on computing education; and 11 of 17, or 64.7%, indicated spending less than 5% of their time on computing education. Although 100% considered *Disciplinary Commons* to be a good use of their time, only 7 of 17 (41.2%) agreed or strongly agreed that *Disciplinary Commons* advanced their careers.

## B. Community of Practice

One question of interest was the extent to which participants felt they were already part of a community of computer science educators focused on scholarly work in teaching, and the extent to which the cohorts of Disciplinary Commons participants formed and sustained such a community amongst themselves.

### 1. Existing community

In general, participants indicated having some kind of community around teaching issues at their own institutions. All participants reported discussing teaching issues with other instructors in their department at least a few times per term, and all but one participant (16 of 17, or 94.1%) agreed or strongly agreed with the statement, “If I needed to discuss a teaching issue with someone, there is someone I could contact for help.”

Although all participants felt some kind of connection or support related to issues of teaching, a somewhat smaller majority (but still a majority) seemed to be connected to a network. Slightly more than half (10 of 17, or 58.9%) of participants agreed or strongly agreed that they felt “connected to a network of colleagues in my geographic region who are interested in issues of teaching and learning.” A larger majority (12 of 17 or 70.6%) agreed or strongly agreed with the statements, “I feel I have adequate opportunities to discuss issues of teaching and learning in general with my colleagues,” and “I feel connected to a network of colleagues outside my geographic region who are interested in issues of teaching and learning.”

### 2. Disciplinary Commons community

When asked about the most valuable part of the Disciplinary Commons experience, the majority of participants described aspects of the community, such as the opportunity to share ideas, learn from each, or become more connected to a network of colleagues. As one participant said, “[The most valuable thing was] Learning that we really are not all alone out here! There are colleagues nearby.”

It did appear that there was some continuation of this community, although it was not particularly frequent. All participants indicated some kind of contact with their cohort, though for the vast majority (16 of 17, 94.1%), this contact occurred once or twice per quarter or less. The most common mode of contact was via person-to-person email, although 6 of 7 (85.7%) U.S. participants reconnected in person at conferences, and 90% of the U.K. participants indicated maintaining connection via the Disciplinary Commons email list.

## C. Impact of Disciplinary Commons

Perhaps the most important evaluative question addressed in this survey is the long-term impact of the Disciplinary Commons experience. One indicator of sustained effects is participants’ ongoing use and/or revision of their course portfolios; another is participants’ own assessment of long-term impact on their knowledge and practices. Each of these two aspects of impact is explored below.

### 1. Course Portfolio

In general, participants indicated that they had easy access to their course portfolio or could find it after a bit of searching. Almost all participants (15 of 17 or 88.2%) had looked at their portfolios at least once or twice, and all (100%) had thought about discussions about the course portfolio at least once or twice since completing the Disciplinary Commons. However, somewhat fewer had used their portfolio (13 of 17 or 76.5%) or reserved something for possible inclusion in a future portfolio (8 of 17, or 47.1%).

### 2. Impact on knowledge and practices

Survey responses suggest that participants gained some valuable understanding and insight from their disciplinary commons experience. A strong majority agreed or strongly agreed that as a result of their Disciplinary Commons experience they “…have a clearer understanding of the learning objectives for the course that I investigated” (14 of 17, or 82.4%), “ “…have a better understanding of why I teach this course the way that I do” (15 of 17 or 88.2%), and “… have a better understanding of what ‘good teaching’ is” (14 of 17, or 82.4%).

There is overwhelming evidence that Disciplinary Commons affected participants’ teaching practices. All participants (100%) agreed or strongly agreed with the statements, “My experience in the Disciplinary Commons has influenced my teaching practices,” and “I have implemented new teaching ideas I generated during the Disciplinary Commons.”

Responses were slightly less strong in regards to impact of Disciplinary Commons on participants’ use of scholarly work and general teaching, but still with a majority agreeing or strongly agreeing that as a result of their Disciplinary Commons experience, they “consider scholarly work more when designing a course” and consider themselves “a different type of teacher than before my Disciplinary Commons experience” (11 of 17, or 64.7% and 12 of 17, 70.6%, respectively).

## D. Satisfaction with Disciplinary Commons

Participants were overwhelmingly positive about their Disciplinary Commons experience, with 100% agreeing or strongly agreeing with the statements, “As a whole, I enjoyed my Disciplinary Commons experience,” and “I think my decision to take part in the Disciplinary Commons was a good one.” In fact, over 80% (82.4% and 88.2%) *strongly* agreed with these two statements. In addition, when asked for additional comments, most participants spontaneously provided additional positive remarks, such as the following quote:

Loved it. I think about the commons, and the folks involved, on a regular basis. It fundamentally changed the way I approach my courses.

When asked about the value of the experience, participants most frequently mentioned the opportunity to connect with other instructors – to learn from them and gather new ideas. In general, the time set aside for reflecting on teaching was seen as extremely valuable and important.

There was no strong consensus about what could have been improved, although several participants suggested that they and/or their fellow participants did not have adequate time to be truly invested in the process and assignments. For the most part, other suggestions concerned the logistics of the program (e.g., more frequent gatherings, holding meetings more locally, opportunity for course release to participate) and slight alterations of the curriculum (e.g., “streamlining” course portfolio process).

# Appendix A: Instruments

Please note that this survey was used for U.S. participants and a slightly re-worded (i.e., “Anglicized”) version was used with U.K. participants, so as to adapt for language-use differences.

### Survey Pre-Amble

The University of Washington’s Office of Educational Assessment (OEA) has been contracted to conduct an evaluation of *Disciplinary Commons* for the purpose of assessing program outcomes and informing program improvement. As a previous participant in this program, we are asking you to complete the following survey to provide your reflections on the experience and provide data OEA can compare to information you may have provided while participating in the program.

The survey should take approximately 10 to 15 minutes to complete. Your responses will remain confidential; the information you provide will be linked to a code number assigned to you automatically by the UW WebQ system. In a separate list, your email address will be linked to your code number. The purpose of maintaining a link to the code numbers is to match up your responses with responses you may have provided during the program and possibly at points later in the future. Only OEA evaluation staff will have access to the code list.

The information you provide will be summarized in a report for the co-PIs of the *Disciplinary Commons* grant. The data will be presented in an aggregated fashion and no identifying information will be included in the report. Your participation is voluntary; you may skip any question you do not wish to answer.

If you have any questions about this survey or how the information will be used, please contact Bayta Maring at (baytam@u.washington.edu), 206-543-5190.

To participate, please click the “Next” button below.

### Section 1. Your portfolio and current teaching

1. Since you completed the *Disciplinary Commons* experience, how many times have you taught the course(s) for which you developed a portfolio?
* None
* Once
* Twice
* Three times
* More than three times
1. If someone asked you for a copy of your course portfolio (or any part of it), including a version that has been updated since the *Disciplinary Commons*, which of the following would apply?
* You could find it very easily; you know exactly where it is.
* It would take a little bit of searching, but it is readily available.
* You would have to take it out of an archived file somewhere.
* It would take several days to fulfill this request as you have no idea where it is.
* You no longer have a copy of any part of your course portfolio.
1. Please estimate how often you have engaged in the following activities since completing the *Disciplinary Commons*.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never | Once or Twice | 3 -5 times | 6 – 10 times  | More than 10 times |
| Updated any part of the course portfolio | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Used any part of your portfolio for a specific purpose | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Looked at your portfolio (as a reference) | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Thought about discussions or content from the *Disciplinary Commons* | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| “Flagged” or reserved something from a class for possible inclusion in a future portfolio | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |

1. Please indicate how much you agree or disagree with the following statements about your *Disciplinary Commons* experience.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | N/A (I am not involved in any teaching-related activities |
| My experience in the *Disciplinary Commons* has influenced my teaching practices. | 1 | 2 | 3 | 4 | 5 | n/a |
| I have implemented new teaching ideas I generated during the *Disciplinary Commons.* | 1 | 2 | 3 | 4 | 5 | n/a |
| I have implemented curriculum change ideas I generated during the *Disciplinary Commons* | 1 | 2 | 3 | 4 | 5 | n/a |
| Ideas I heard from other instructors during the *Disciplinary Commons* has influenced my teaching practices. | 1 | 2 | 3 | 4 | 5 | n/a |

### Section 2: Community of Practice

1. How often do you discuss computer science education with the following individuals?

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Never | Once a year or less | Approx. once per term | A few times during each term | Many times during each term |
| Other instructors in your department | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Other instructors at your institution outside your department  | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Your department chair | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Staff at your institution who specialize in faculty development (e.g., at a center for teaching and learning) | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Instructors who teach similar courses as you at other institutions | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Instructors who do not teach similar courses at other institutions  | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Graduate students or post-doctoral researchers you work with | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |

1. Please indicate how much you agree or disagree with the following statements.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | N/A | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| I feel connected to a network of colleagues in my geographic region who are interested in issues of teaching and learning. | 🞎 | 1 | 2 | 3 | 4 | 5 |
| I feel connected to a network of colleagues outside my geographic region who are interested in issues of teaching and learning | 🞎 | 1 | 2 | 3 | 4 | 5 |
| I have adequate opportunities to discuss issues of teaching and learning *in general* with my colleagues | 🞎 | 1 | 2 | 3 | 4 | 5 |
| I have adequate opportunities to discuss issues of teaching and learning *in the discipline* with my colleagues  | 🞎 | 1 | 2 | 3 | 4 | 5 |
| If I needed to discuss a teaching issue with someone, there is someone I could contact for help. | 🞎 | 1 | 2 | 3 | 4 | 5 |

1. How many times in the last academic year did you observe other instructors teaching?
* None [to 7a]
* Once or twice
* Three to five times
* More than five times

7a. For what purpose(s)?

1. How many times during the last academic year was your teaching observed
* None [to 8a]
* Once or twice
* Three to five times
* More than five times

 8a. For what purpose(s)?

1. Have you stayed in contact with anyone from your Disciplinary Commons cohort?
* Yes [to 8a]
* No [to 9]

9a. How many individuals from your cohort have you been in contact with at least once since the Disciplinary Commons ended.

* One or two
* Three to five
* Six to ten
* More than ten

9b. How frequently do you contact someone from your cohort

* Once or twice since Disciplinary Commons ended
* Once or twice per quarter
* Approximately once or twice a month
* Approximately once a week or more frequently

9c. How do you stay in contact with individuals from your Disciplinary Commons cohort? (Select all that apply)

* The *Disciplinary Commons* Email list
* Email (other than the email list)
* Social networking site (e.g., Facebook)
* Telephone
* In-person at a conference
* In-person at your institution
* Other: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

### Section 3: Reflections on teaching practices

1. Please indicate how often you engage in the following activities.

|  | Never | Once a year or less | Approx. once per term | Several times during each term | Many times during each term |
| --- | --- | --- | --- | --- | --- |
| Reflect on your teaching practices | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Document your reflections on your teaching (e.g., journal, teaching portfolio) | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Read scholarly work on teaching in the discipline | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Attend workshops or conferences with a focus on computing education | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Consult with a faculty development office or staff member on campus  | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Try a new teaching practice based on reflection | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Try a new teaching practice based on student feedback | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Try a new teaching practice based on scholarly work  | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Conduct an informal study to assess the impact of changes to your teaching | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |
| Employ a method of assessment beyond standard course evaluations | 🞎 | 🞎 | 🞎 | 🞎 | 🞎 |

1. Have you published and/or presented scholarly work on computing education?
* Yes
* No
* In preparation
1. Approximately what percentage of your professional work is spent doing scholarly work (e.g., conducting studies, writing papers, giving professional presentations) on computing education?
* None
* Less than 5%
* 6 – 10%
* 11 – 20%
* 21 – 30%
* 31 – 40%
* 41 – 50%
* More than 50%

### Section 4: Your Disciplinary Commons Experience

1. Please indicate how much you agree with the following statements about your Disciplinary Commons experience.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| As a whole, I enjoyed my *Disciplinary Commons* experience. | 1 | 2 | 3 | 4 | 5 |
| I think my decision to take part in the *Disciplinary Commons* was a good one. | 1 | 2 | 3 | 4 | 5 |
| Being a part of the *Disciplinary Commons* was a positive addition to my CV. | 1 | 2 | 3 | 4 | 5 |
| The reflections on my teaching that I did as a *Disciplinary Commons* participant was well-integrated into my career goals. | 1 | 2 | 3 | 4 | 5 |
| I believe that my participation in the *Disciplinary Commons* advanced my career. | 1 | 2 | 3 | 4 | 5 |
| At this point, I consider participation in the *Disciplinary Commons* a good use of my time. | 1 | 2 | 3 | 4 | 5 |
| As a result of participating in the *Disciplinary Commons*, I have a clearer understanding of the learning objectives for the course that I investigated. | 1 | 2 | 3 | 4 | 5 |
| During the *Disciplinary Commons*, I learned more about how to assess student learning than I had known before. | 1 | 2 | 3 | 4 | 5 |

1. Please indicate how much you agree or disagree with the following statements about the effect of participating in *Disciplinary Commons*

AS A RESULT OF MY *DISCIPLINARY COMMONS EXPERIENCE …*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree |
| …I have a clearer understanding of the learning objectives for the course that I investigated. | 1 | 2 | 3 | 4 | 5 |
| …I have a better understanding of why I teach this course the way that I do. | 1 | 2 | 3 | 4 | 5 |
| … the course that I investigated has better alignment between the learning objectives, the teaching and learning activities, and the learning assessments. | 1 | 2 | 3 | 4 | 5 |
| …. I now have a better understanding of what “good teaching” is. | 1 | 2 | 3 | 4 | 5 |
| … I am better able to provide feedback to colleagues on their teaching and course materials. | 1 | 2 | 3 | 4 | 5 |
| … I engage in more reflection about my teaching practices. | 1 | 2 | 3 | 4 | 5 |
| … I consider scholarly work more when designing a course. | 1 | 2 | 3 | 4 | 5 |
| … I now consider myself a different type of teacher than before my Disciplinary Commons experience. | 1 | 2 | 3 | 4 | 5 |

1. Which aspects or qualities of the *Disciplinary Commons* (if any) were most valuable for you?
2. Looking back, is there anything you would have changed about the *Disciplinary Commons*?
3. Any additional comments?

# Appendix B: Detailed Findings

## Section 1: Your Portfolio and Current Teaching

As illustrated in Figure B1, when asked how many times they had taught the course(s) for which they developed a portfolio since completing the Disciplinary Commons experience, the majority of participants (13 of 17, or 76.5%) indicated having taught the course at least three times.

Figure B1. How many times respondents reported that they had taught the course(s) for which they developed a portfolio since they completed the Disciplinary Commons experience

Next, respondents were asked to indicate the accessibility of the course portfolios they created during their Disciplinary Commons experience, selecting from five possible responses to someone who requested a copy of their course portfolio, or any part of it, including versions updated since the Disciplinary Commons. As shown in Figure B2, the majority of respondents (10, 58.8%) reported that they could find it easily and six respondents (35.3%) said that it would take a “little bit of searching.”

Figure B2. Responses to the question of which of the following would apply if someone asked you for a copy of your course portfolio (or any part of it), including a version that has been updated since the Disciplinary Commons

As shown in Table B1, when asked whether they had engaged in several different activities since completing the Disciplinary Commons, respondents were most likely to report that they had thought about discussions or content from the Disciplinary Commons (82.3% reported that they had thought about discussions or content six times or more) as opposed to consulting the course portfolio specifically.

Table B1. Please estimate how often you have engaged in the following activities since completing the Disciplinary Commons.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Never | Once or Twice | 3-5 times | 6-10 times | More than 10 times | *Mean* | SD | n*Mean* |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| Updated any part of the course portfolio | 9(52.9%) | 8(47.1%) | 0(0.0%) | 0(0.0%) | 0(0.0%) | 1.47 | .51 | 17 |
| Used any part of the course portfolio | 4(23.5) | 8(47.1) | 4(23.5) | 0(0.0) | 1(5.9) | 2.18 | 1.02 | 17 |
| Looked at your portfolio (as a reference) | 2(11.8) | 6(35.3) | 8(47.1) | 0(0.0) | 1(5.9) | 2.53 | .94 | 17 |
| Thought about discussions or content from the Disciplinary Commons | 0(0.0) | 2(11.8) | 1(5.9) | 5(29.4) | 9(52.9) | 4.24 | 1.03 | 17 |
| “Flagged” or reserved something from a class for possible inclusion in a future portfolio | 9(52.9) | 3(17.6) | 4(23.5) | 1(5.9) | 0(0.0) | 1.82 | 1.02 | 17 |

As shown in Figure B3, U.S.A. Disciplinary Commons participants’ were significantly more likely to report that they had looked at their portfolio (as a reference) since completing the Disciplinary commons and they were marginally more likely to have reported using a part of their portfolio for a specific purpose**[[1]](#footnote-1)**.

Figure B3. Comparison of U.S.A. and U.K. Disciplinary Commons participants’ mean responses to questions about how much they had engaged in a series of activities since Completing the Disciplinary Commons

Overall, nearly all Disciplinary Commons participants’ “Agreed” or “Strongly Agreed” with a series of statements about the impact of the experience on their teaching practices (See Table B2).

Table B2. Please indicate how much you agree or disagree with the following statements about your Disciplinary Commons experience.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Strongly Disagree | Disagree | Neutral | Agree | Strongly Agree | *Mean* | SD | n*Mean* |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| My experience in the Disciplinary Commons has influenced my teaching practices. | 0(0.0%) | 0(0.0%) | 0(0.0%) | 7(41.2%) | 10(58.8%) | 4.59 | .51 | 17 |
| I have implemented new teaching ideas I generated during the Disciplinary Commons. | 0(0.0) | 0(0.0) | 0(0.0) | 8(47.1) | 9(52.9) | 4.53 | .51 | 17 |
| I have implemented curriculum change ideas I generated during the Disciplinary Commons. | 0(0.0%) | 2(11.8) | 1(5.9) | 8(47.1) | 6(35.3) | 4.06 | .97 | 17 |
| Ideas I heard from other instructors during the Disciplinary Commons has influenced my teaching practices. | 0(0.0) | 0(0.0) | 1(5.9) | 4(23.5) | 12(70.6) | 4.65 | .61 | 17 |

Overall, U.S.A. and U.K. Disciplinary Commons participants’ responses to a series of questions about the impact of their experience were quite similar (See Figure B4). U.K Disciplinary Commons participants were less likely to agree that they had implemented curriculum change ideas generated during the Disciplinary Commons; however, this difference was not statistically significant.

Figure B4. Comparison of U.S.A. and U.K. Disciplinary Commons participants’ mean responses to a series of questions about their Disciplinary Commons experience

## Section 2: Community of Practice

As illustrated in Table B3, Disciplinary Commons participants were most likely to report that they had discussed computer science with other instructors in their department (64.7% indicated they did so “Many times during each term”). Disciplinary Commons participants were least likely to report that they had discussed computer science with instructors who do not teach similar courses at other institutions or graduate students or post-doctoral researchers they work with.

Table B3. How often do you discuss computer science education with the following individuals?

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Never** | **Once a year or less** | **Approx. once per term** | **A few times during each term** | **Many times during each term** | ***Mean*** | **SD** | **n*Mean*** |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| Other instructors in your department | 0(0.0%) | 0(0.0%) | 0(0.0%) | 6(35.3%) | 11(64.7%) | 4.65 | .49 | 17 |
| Other instructors at your institution outside your department | 1(5.9) | 3(17.6) | 3(17.6) | 7(41.2) | 3(17.6) | 3.47 | 1.18 | 17 |
| Your department chair | 1(5.9) | 4(23.5) | 3(17.6) | 4(23.5) | 5(29.4) | 3.47 | 1.33 | 17 |
| Staff at your institution who specialize in faculty development (e.g., at a center for teaching and learning) | 4(25.0) | 4(25.0) | 3(18.8) | 5(31.3) | 0(0.0) | 2.56 | 1.21 | 16 |
| Instructors who teach similar courses as you at other institutions | 0(0.0) | 2(12.5) | 8(50.0) | 5(31.3) | 1(6.3) | 3.31 | .79 | 16 |
| Instructors who do not teach similar courses at other institutions | 6(35.3) | 2(11.8) | 6(35.3) | 3(17.6) | 0(0.0) | 2.35 | 1.17 | 17 |
| Graduate students or post-doctoral researchers you work with | 9(52.9) | 1(5.9) | 1(5.9) | 4(23.5) | 2(11.8) | 2.35 | 1.62 | 17 |

As shown in Figure B5, U.S.A. and U.K. Disciplinary Commons participants’ responses to the question of how often they discussed computer science with a series of different individuals were relatively similar. U.S.A. Disciplinary Commons participants were more likely to report meeting with their department chair to discuss computer science education; however, this difference was only marginal[[2]](#footnote-2). U.K. Disciplinary Commons participants were more likely to report that they had discussed computer science education with graduate students or post-doctoral researchers they work with; however, this difference did not reach statistical significance.

Figure B5. Comparison of U.S.A. and U.K. Disciplinary Commons participants’ mean responses the question: How often do you discuss computer science education with the following individuals?

As shown in Table B4, participants generally felt they had someone with whom they could discuss teaching issues if needed, with all but one participant agreeing or strongly agreeing with this statement. In general, participants agreed they were connected to a network of other, teaching-oriented colleagues and that they have opportunity to discuss issues related to teaching and learning, although a small minority did not feel this way.

Table B4. Please indicate how much you agree or disagree with the following statements.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly Disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly Agree** | ***Mean*** | **SD** | **n*Mean*** |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| I feel connected to a network of colleagues in my geographic region who are interested in issues of teaching and learning. | 0(0.0%) | 2(11.8%) | 5(29.4%) | 6(35.3%) | 4(23.5%) | 3.71 | .99 | 17 |
| I feel connected to a network of colleagues outside my geographic region who are interested in issues of teaching and learning. | 1(5.9) | 1(5.9) | 3(17.6) | 8(47.1) | 4(23.5) | 3.76 | 1.09 | 17 |
| I feel I have adequate opportunities to discuss issues of teaching and learning in general with my colleagues. | 0(0.0) | 2(11.8) | 3(17.6) | 8(47.1) | 4(23.5) | 3.82 | .95 | 17 |
| I feel I have adequate opportunities to discuss issues of teaching and learning in the discipline with my colleagues. | 0(0.0) | 2(11.8) | 3(17.6) | 10(58.8) | 2(11.8) | 3.71 | .85 | 17 |
| If I needed to discuss a teaching issue with someone, there is someone I could contact for help. | 0(0.0) | 0(0.0) | 1(5.9) | 4(23.5) | 12(70.6) | 4.65 | .61 | 17 |

U.S. Disciplinary Commons participants were significantly more likely to agree that they felt connected to a network of colleagues in their geographic region who are interested in issues of teaching and learning[[3]](#footnote-3).

Figure B6. Comparison of U.S.A. and U.K. Disciplinary Commons participants’ mean responses to how much they agree or disagree with a series of statements regarding teaching connections

As shown in Figure B7, when asked how many times in the last academic year they observed other instructors teaching, participants were most likely to indicate “Once or Twice” or “Three to five times.”

Figure B7. How many times respondents reported that they had observed other instructors’
 teaching in the last academic year

Those participants who indicated that they had observed other instructors teaching at least “Once or twice” were asked the following open-ended question: “For what purpose(s) did you observe other instructors teaching?” A total of 16 participants provided responses to this question and in general. Approximately half of the motivations could be defined as internal motivation (to improve one’s own teaching, for pleasure) and half were more external (for tenure review process). Participants’ responses are presented in full below, separated into these categories.

**Internal motivation (8)**

a) accidentally b) to "look in" on a course I will be teaching in the future

1. Learning new content from others. 2. Looking for guidance in online instruction.

To see their "techniques" on certain topics and/or overall approach (e.g., mix of lecture, hand-on demos, small group work, etc.)

It was somebody who helped on my courses. To see whether it works out for my course.

pleasure!

Interest in the topic being presented

To continue learning about teaching

a) They were using voting systems. I was interested to see how they used them (they're not new to me- rather I'm always looking for altrnative methods of use). b) a colleague was trialing with students a method of exam-technique (essay-writing) improvement. I was both intersted for myself and there to provide feedback to him on the method.

**External motivation (6)**

For annual teaching evaluations

Evaluation for tenure and promotion

As part of their evaluation for promotion.

It is a requirement.

As part of the institutional appraisal process.

Peer review, as part of the University's ongoing quality enhancement procedures.

**Combination (1)**

A couple times as a teaching short course for instructors at the community college. Regularly as part of tenure and post-tenure observations

**Other (1)**

Many of my colleagues have left and new ones have taken over some of the lectures, so I sat in on them to ensure continuity of approach. There has been little time to discuss content or approach before or after lectures due to pressures of teaching and one of the observed staff being part-time hourly paid. Hopefully we will be able to reflect onour teaching at some stage.

As illustrated in Figure B8, participants were most likely to report that their teaching had been observed “Once or twice” in the last academic year, followed by “Three to five times.”

Figure B8. How many times respondents reported that their teaching was observed during the last academic year

Those participants who indicated that their teaching had been observed at least “Once or twice” were asked the following open-ended question: “For what purpose(s) was your teaching observed?” A total of 16 participants provided responses, with about half referring to external motivation. Internal motivation refers to either the teacher’s desire to improve or another teacher’s desire to learn from the respondent. Responses are presented in their entirety below, separated according to categories.

**External motivation (7)**

Post-tenure review

For teaching evaluation.

Institutional appraisal.

As part of the University's ongoing quality enhancement process.

Post-tenure, the teaching thing I mentioned earlier, and acutally the Executive Vice President of Green River.

**Other teacher’s motivation (2)**

1. Ideas for online instruction.

people wanting to teach the module at a late date interested to see how i did it.

**Respondent’s motivation (1)**

For the other person who should assist me on my course to learn to know how about the level, the style in the course.

**Combination (3)**

Some observers were there as part of the evaluation process. We've also hired new faculty who've been sitting in on my classes frequently.

It is required as part of Post-tenure process and also as a request by me for my own personal growth as an Instructor.

Folk were interested in the lecture format, based around assessing previously-read material using voting systems. b) I had asked a colleague to give me feedback on how they thought the class was responding to the teaching style, how much group discussion was taking place.

**Other (4)**

The topic being presented.

Don't know.

A colleague (full-time but hasn't taught this module before) now shares my introductory programming teaching course. We sit in on each others lectures to ensure continuity.

Co-teaching with another instructor

When asked whether they had stayed in contact with anyone from their Disciplinary Commons cohort, all participants in both the U.S.A. and U.K. Commons responded in the affirmative. Participants were most likely to report that they stayed in contact with “Three to five” individuals and “Six to ten” individuals.

Figure B9. Number of individuals from their cohort participants reported being in contact with at least once since the Disciplinary Commons ended

Participants most commonly reported that they had contacted people from their cohort “Once or twice per quarter” and “Once or twice since Disciplinary Commons ended” (Figure B10).

Figure B10. Participants’ responses to how frequently they contact someone from their cohort

Participants were asked to select, from a list of seven different options, all the ways that they stayed in contact with their Disciplinary Commons cohort. As shown in Figure B11, the great majority of the U.S. Disciplinary Commons participants (85.7%) noted that they kept in touch in-person at a conference whereas only 40.0% of U.K. participants chose this option. Furthermore, 90% of U.K. Disciplinary Commons participants indicated that they kept in touch via the Disciplinary Commons email list compared with only 57.1% of U.S. participants. Three participants from the U.S.A. Disciplinary Commons chose “Other,” specifying the following means: “Extended faculty meetings at UW/T,” “Joint meetings at UWT,” and “UWT CTC meetings/in-person at UWT.”

Figure B11. Participants’ responses to how they stay in contact with individuals from their
Disciplinary Commons cohort

## Section 3: Reflections on Teaching Practices

In general, participants indicated a great deal of reflection on their teaching practices, although other behaviors related to scholarly approaches to teaching and learning were somewhat less common. However, participants did indicate reading scholarly work fairly frequently, and all but three participants indicated trying a new teaching practice based on reflection at least once per term.

Table B5. Please indicate how often you engage in the following activities.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Never** | **Once a year or less** | **Approx. once per term** | **Several times during each term** | **Many times during each term** | ***Mean*** | **SD** | **n*Mean*** |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| Reflect on your teaching practices | 0(0.0%) | 0(0.0%) | 0(0.0%) | 7(41.2%) | 10(58.8%) | 4.59 | .51 | 17 |
| Document your reflections on your teaching (e.g., journal, teaching portfolio) | 2(11.8) | 5(29.4) | 7(41.2) | 1(5.9) | 2(11.8) | 2.76 | 1.15 | 17 |
| Read scholarly work on teaching in the discipline | 1(5.9) | 1(5.9) | 3(17.6) | 10(58.8) | 2(11.8) | 3.65 | .99 | 17 |
| Attend workshops or conferences with a focus on computing education | 3(17.6) | 6(35.3) | 6(35.3) | 2(11.8) | 0(0.0) | 2.41 | .94 | 17 |
| Consult with a faculty development office or staff member on campus | 3(17.6) | 4(23.5) | 8(47.1) | 2(11.8) | 0(0.0) | 2.53 | .94 | 17 |
| Try a new teaching practice based on reflection | 0(0.0) | 3(17.6) | 8(47.1) | 5(29.4) | 1(5.9) | 3.24 | .83 | 17 |
| Try a new teaching practice based on student feedback | 0(0.0) | 6(35.3) | 6(35.3) | 5(29.4) | 0(0.0) | 2.94 | .83 | 17 |
| Try a new teaching practice based on scholarly work | 1(5.9) | 9(52.9) | 6(35.3) | 1(5.9) | 0(0.0) | 2.41 | .71 | 17 |
| Conduct an informal study to assess the impact of changes to your teaching | 2(11.8) | 10(58.8) | 4(23.5) | 1(5.9) | 0(0.0) | 2.24 | .75 | 17 |
| Employ a method of assessment beyond standard course evaluations | 2(11.8) | 4(23.5) | 8(47.1) | 1(5.9) | 2(11.8) | 2.82 | 1.13 | 17 |

Figure B12 shows the mean responses to the items in Table B5 above. Note that there were no significant differences between groups for any of these items.

**Figure B12. Participants’ responses to how often they engage in a series of ten activities**

When asked whether they had published and/or presented scholarly work on computing education, 11 participants (64.7%) said “Yes” and six participants (35.3%) said “No.” Eight U.K. Disciplinary Commons participants said “yes” compared with only three U.S.A. participants.

Figure B13. Participants’ responses to whether or not they have published and/or presented scholarly work on computing education

Next, participants were asked to indicate what percentage of their professional work is spent doing scholarly work (e.g., conducting studies, writing papers, giving professional presentations) on computing education. As shown in Figure B14, participants generally spent less than 20% of their professional work engaged in this area of work.

Figure B14. Participants’ responses to approximately what percentage of your professional work is spent doing scholarly work on computing education

## Section 4: Your Disciplinary Commons Experience

This section of questions focused on participants’ disciplinary commons experience. As Table B6 indicates, participants were extremely positive about their Disciplinary Commons experience, although responses about whether their experience advanced their career were somewhat mixed.

Table B6. Please indicate how much you agree with the following statements about your Disciplinary Commons experience.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **Strongly Disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly Agree** | ***Mean*** | **SD** | **n*Mean*** |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| As a whole, I enjoyed my Disciplinary Commons experience. | 0(0.0%) | 0(0.0%) | 0(0.0%) | 3(17.6%) | 14(82.4%) | 4.82 | .39 | 17 |
| I think my decision to take part in the Disciplinary Commons was a good one. | 0(0.0%) | 0(0.0%) | 0(0.0%) | 2(11.8) | 15(88.2) | 4.88 | .33 | 17 |
| Being a part of the Disciplinary Commons was a positive addition to my CV. | 0(0.0%) | 0(0.0%) | 5(29.4) | 4(23.5) | 8(47.1) | 4.18 | .88 | 17 |
| The reflection on my teaching that I did as a Disciplinary Commons participant was well-integrated into my career goals. | 0(0.0) | 1(5.9) | 2(11.8) | 6(35.3) | 8(47.1) | 4.24 | .90 | 17 |
| I believe that my participation in the Disciplinary Commons advanced my career. | 0(0.0) | 4(23.5) | 6(35.3) | 5(29.4) | 2(11.8) | 3.29 | .99 | 17 |
| At this point, I consider participation in the Disciplinary Commons a good use of my time. | 0(0.0) | 0(0.0) | 1(5.9) | 6(35.3) | 10(58.8) | 4.53 | .62 | 17 |
| As a result of participating in the Disciplinary Commons, I have a clearer understanding of the learning objectives for the course I investigated. | 0(0.0) | 0(0.0) | 1(5.9) | 7(41.2) | 9(52.9) | 4.47 | .62 | 17 |
| During the Disciplinary Commons, I learned more about how to assess student learning than I had known before. | 0(0.0) | 0(0.0) | 3(17.6) | 8(47.1) | 6(35.3) | 4.18 | .73 | 17 |

Figure B15 shows comparisons between the two cohorts (U.S. and U.K.) for the items in the table above. None of these differences was statistically significant, although the difference between ratings on, “The reflection on my teaching that I did as a Disciplinary Commons participant was well-integrated into my career goals,” trended to significance.[[4]](#footnote-4)

Figure B15. Participants’ level of agreement with statements about their Disciplinary Commons experience, separated according to cohort

Another set of questions focused more on the impact of the Disciplinary Commons experience, with endorsement items following the stem “As a result of my Disciplinary Commons experience …” as shown in Table B7.

Table B6. Please indicate how much you agree with the following statements about your Disciplinary Commons experience.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| As a result of my Disciplinary Commons Experience… | **Strongly Disagree** | **Disagree** | **Neutral** | **Agree** | **Strongly Agree** | ***Mean*** | **SD** | **n*Mean*** |
| ***1*** | ***2*** | ***3*** | ***4*** | ***5*** |  |  |  |
| …I have a clearer understanding of the learning objectives for the course that I investigated. | 0(0.0%) | 0(0.0%) | 3(17.6%) | 7(41.2%) | 7(41.2%) | 4.24 | 0.75 | 17 |
| …I have a better understanding of why I teach this course the way that I do. | 0(0.0) | 0(0.0) | 2(11.8) | 6(35.3) | 9(52.9) | 4.41 | 0.71 | 17 |
| … the course that I investigated has better alignment between the learning objectives, the teaching and learning activities, and the learning assessments. | 0(0.0) | 0(0.0) | 1(5.9) | 8(47.1) | 8(47.1) | 4.41 | 0.62 | 17 |
| …. I now have a better understanding of what “good teaching” is. | 0(0.0) | 0(0.0) | 3(17.6) | 8(47.1) | 6(35.3) | 4.18 | 0.73 | 17 |
| … I am better able to provide feedback to colleagues on their teaching and course materials. | 0(0.0) | 0(0.0) | 5(29.4) | 4(23.5) | 8(47.1) | 4.18 | 0.88 | 17 |
| … I engage in more reflection about my teaching practices. | 0(0.0) | 0(0.0) | 3(17.6) | 6(35.3) | 8(47.1) | 4.29 | 0.77 | 17 |
| … I consider scholarly work more when designing a course. | 0(0.0) | 2(11.8) | 4(23.5) | 8(47.1) | 3(17.6) | 3.71 | 0.92 | 17 |
| … I now consider myself a different type of teacher than before my Disciplinary Commons experience. | 0(0.0) | 2(11.80 | 3(17.6) | 7(41.2) | 5(29.4) | 3.88 | 0.99 | 17 |

Figure B16 shows comparisons between the two cohorts (U.S. and U.K.) for the items in the table above. None of the differences was statistically significant.

Figure B16. Participants’ level of agreement with statements about their Disciplinary Commons experience (with the stem, “As a result of my Disciplinary Commons experience”) separated according to cohort

Three open-ended questions were used to gather additional information about participants’ Disciplinary Commons experience. Responses are summarized below.

### Which aspects or qualities of the Disciplinary Commons (if any) were most valuable for you?

The most common theme about the value of the Disciplinary Commons was different **aspects of community:** learning from others, sharing ideas, or realizing that one “is not alone.” All responses (from 15 participants) are presented in their entirety below, separated into those addressing community and other comments

**Aspects of community (9)**

Learning that we really are not all alone out here! There are colleagues nearby.

Two different but important things came out of the DC, one of which was informal and one that was formal: 1. Informal: It helped me to be a part of a local network of colleagues with similar academic interests. We were able to share common miseries and triumphs. We were able to give each other ideas about what works and what doesn't in the classroom. 2. Formal: becoming more acquainted with the literature on teaching, learning, and assessment. Understanding (through reflection and writing) of different aspects of teaching (e.g., teaching philosophy, syllabus, assessment, etc.). Having to write our thoughts down required a bit more reflection that the usual, "Oh, I think that's why it worked (or didn't)."

Getting to know other faculty in the area and understanding their perspectives, visiting other institutions, observing and being observed in the classroom. The structure of the observations was excellent.

Learning from others.

Coming together in person to discuss a common topic, over the course of a year.

Getting new ideas

Hearing other lecturers had the same problems; hearing their attempted

Interaction with others on their teaching and on related scholarly work

Discussions with colleagues

**Reflection (3)**

Requirement to reflect.

The guided introspection -- being asked to look at my teaching and answer specific questions about why I teach the way I do, and thinking about what my materials indicate about the things I value.

Reflecting on own practices.

**Other specific aspects (2)**

Student feedback techiniques (CATs) and learning objectives matched to actual teaching.

The materials provided by the organizer were stimulating. The regularity of meetings and expectation of attendance where good elements of the discipline. The zero cost.

### Looking back, is there anything you would have changed about the Disciplinary Commons?

Comments from 14 participants varied with no clear consensus about possible changes. Responses are presented in their entirety below according to specific suggestions and other types of comments.

**Specific suggestions for improvement (9)**

Spend more time on it ... more frequent gatherings

I think there could have been a little less "lecturing" and more hands-on activities and discussion. I say this even though most of what we did, as I recall, was dicussion. What could have happened is that we could have been required to do more readings in preparation for the meetings, but I understand the practical limitations of getting people to do this with our busy teaching schedules.

Continue process, expand to other colleagues.

Not about the work we did, but I'd have investigated getting a course release of some sort to help make time for the project.

Streamlined the creation of the portfolio.

Finding a way to ensure that observations took place in all cases would have been good. There was clearly reluctance of some participants to be observed, and timing meant it was not always possible.

Holding meetings more locally.

A clearer architecture to the Commons process. In the early stages it was not clear to me, because I had not done anything like this, where it was going.

Suggest that the DC organisers give a presentation at each institution so that there is less resistance from local management.

**More effort from participants (2)**

I guess only my level of involvement in offering feedback to other participants on their portfolios. I wasn't very good about that. Maybe there is a better way of integrating that piece, but I'm not sure how.

I would have devoted even more time to it.

**Positive comment (1)**

I liked the focus; the time commitment; the size of the group; the way we each hosted at our own campus.

**No/nothing to suggest (2)**

### Any additional comments?

Fourteen respondents provided codable responses, with almost all providing positive comments:

**Positive Comments (10)**

Great experiences, well worth doing

Just that it was a great experience and it was a privilege to be involved. Thanks!

Thank you for the opportunity.

It was the most remarkable teaching experience I have had, thanks to all the people in the Commons group, especially Josh and his careful preparation and planning, so our time was always valued. Thanks to you Bayta for asking!

Loved it. I think about the commons, and the folks involved, on a regular basis. It fundamentally changed the way I approach my courses.

Thanks.

A very worthwhile experience.

I have recommended this to colleagues since I completed it.

I found the whole experience very valuable from a personal level, however my department were very anti my implementing any module changes based on the DC and the module was reallocated.

The opportunity to spend a day a month reflecting on my teaching practice in an entirely different geographic setting and meeting like-minded colleagues was invaluable.

**Specific suggestions for improvement (2)**

Stop sending the nagging emails when you want a survey completed.

I would encourage other lecturers to join a commons if one was available

**Comment about value (1)**

Integrating the social aspects of the DC along with the professional aspects was a big key, I think, to the success of it.

1. Independent samples t-tests: *t*(15) = 2.62, *p* < .05 and *t*(15) = 1.99, *p* = .065, respectively. [↑](#footnote-ref-1)
2. Independent samples t-test: *t*(15) = 1.88, *p* = .08. [↑](#footnote-ref-2)
3. Independent samples t-test: *t*(15) = 4.50, *p* < .001. [↑](#footnote-ref-3)
4. According to an independent samples t-test *t*(15) = 1.99, *p* < .10. [↑](#footnote-ref-4)