How Much is Enough? The Assessment of Student Work in Technical Communication Courses

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This article reports the findings of a national survey of members of the Association of Teachers of Technical Writing (ATTW). The survey focuses on practices of assessing student classroom work and specifically asked technical writing instructors what they assess, how they assess, and what they would like to do to assess their students optimally. In addition to reporting responses to these questions, the article concludes with recommendations for improving student assessment practices at the departmental, programmatic, and course levels.

The ultimate goal of assessment or evaluation of student writing is to help students to become better writers and communicators. But how do technical communication instructors accomplish this goal? What documents, for example, do instructors require students to create in order to assess their abilities? What are the processes by which instructors assess or evaluate student work, and how effective do instructors believe these practices are? While the answers to these questions may, by necessity, be site-specific, Jo Allen argues that "resolving questions [about assessment] . . . will not be easy until we recognize and agree on primary goals and means of using assessment in our discipline or at least within our own individual programs" (356).

To begin to address these questions at both site-specific and disciplinary levels, this article explores the assessment of student work in technical communication courses, identifying the documents students most commonly produce for assessment at both graduate and undergraduate levels and examining instructors' formative (in-process) and summative (final) practices for responding to and grading these documents. For this article, assessment is broadly defined as both formative and summative practices employed to help student writers improve their documents specifically as well as their writing and
communication abilities in general. These activities, depending on their purposes, may or may not be used to determine students' final grades for a particular assignment or the course as a whole. In keeping with this definition, this article reports the findings of a national survey of members of the Association of Teachers of Technical Writing (ATTW). Drawing from participants' comments about what they assess, how they assess, and what they would like to do to assess optimally, the article concludes with proposals for improving the efficiency of assessment practices.

A review of recent research in technical communication, composition, and other fields that use writing as a means of assessment reveals diverse feedback practices, such as traditional instructor-provided written feedback on assignments (Dragga; Byrne); computer conferencing (Cifuentes; Roebuck; Tuller, Kaiser, and Balthazard; Warren and Rada); peer and professional reviews (King, et al; Lundelius and Poon; Simkin and Ramarapu; Van Der Geest and Van Gemert); and portfolios (Dillon; Mullin; Hoger; Powell and Jankovich; Coppola). Furthermore, a number of articles discuss evaluation of specific documents (Covington and Keedy; Tebeaux; Bishop) and short business communications (Hyslop; Meyers; Bergland). All of these articles, however, focus on the assessment of a specific or singular document or on an assessment practice that instructors may adopt for undergraduate and graduate courses, not on the repertoire of comprehensive assessment methods that instructors may employ. In fact, very few articles or book-length texts address comprehensive assessment of student performance in technical communication courses or programs. Among these few are Allen's literature review of technical communication assessment and Bruce Speck's review of assessment strategies, which provide the field with more comprehensive descriptions of student, course, or program assessment methods. Extending the work of Allen and Speck, this article addresses four research questions:

1. What sorts of assignments and activities do instructors use to assess students' abilities in technical communication courses (both undergraduate and graduate)?
2. How do technical communication instructors respond to these assignments?
3. How frequently and in what courses are these assignments, activities, and responses employed?
4. Given the diversity of instruction in technical communication, how comprehensive must our assessment strategies be?
Study Methodology and Sample Demographics

Survey Design

The web-based, password-protected survey was developed and piloted in late March 2002. After the pilot test revisions, the survey was finalized in the following form: The survey first asked participants to provide demographic information about themselves and their courses. Then, to assist participants in describing their assessment practices within these courses, the survey provided participants with possible answer choices and open text fields. For example, for each course identified, the survey provided participants with a list of 29 traditional workplace documents and academic assignments as well as three open text fields for recording documents or assignments not on the list. To assist with the description of course enrollments, the survey organized enrollments into four class sizes (10 or fewer, 11-20, 21-30, or over 30 students). To describe formative assessment activities employed in technical communication courses, the survey listed seven formative assessment activities commonly identified in writing assessment literature: in-class question and answer sessions, electronic discussion forum or email post of questions and answers, face-to-face conferencing, instructor review of document drafts, peer review of document drafts, expert or client review of document drafts, and distribution of checklists or grading guides prior to document evaluation. In addition to these seven activities, participants could write in additional activities in two open text fields. For each activity participants used in their courses, they ranked the frequency of use as “1” for “never,” “2” for “sometimes,” “3” for “often,” and “4” for “always.” To describe their response or feedback methods, the survey asked participants who gave feedback to their students (instructor themselves, peers, or clients/experts) and what mechanism of feedback was offered (oral, handwritten, or electronically written comments). Participants could check as many kinds of response or feedback methods as needed to describe their practices in a given course, and they used a scale of “1” (“never”) to “4” (“always”) to describe the frequency of use. Two open text fields allowed participants to write in other response or feedback. (For a complete copy of the survey questions, please see the ATTW website at www.attw.org. The questions are posted in the TCQ Comments area of the website.)

Survey Dissemination and Sample Selection

After the final version was placed online, two survey rounds followed. In the first round, I emailed 566 ATTW_L listserv subscribers, but participation was minimal with only 32 subscribers responding. For the second round, I identified a random sample of 300 members from the ATTW website (<http://attw.org>). From this sample, I
contacted 186 members by email, requesting either the member's participation or a return email that explained why the member was unable to participate. Sixty-three (63) ATTW members completed the survey; and 34 members returned the email solicitation with reasons for non-participation, such as time constraints and inapplicability of the survey to their current teaching situation. After two rounds, 95 participants had completed the survey. Although the response rate was quite low from the list (6%), the response rate from the random sample was more satisfactory (34%). In this article, these two sets of responses are combined, and answers from both rounds are reported.

Who is Teaching Technical Communication Courses?

In the first survey section, participants provided demographic information about their teaching positions, their departmental and institutional affiliations, and their assessment practices in three courses. In addition to assessment practices, participants provided course titles, descriptions, academic levels, and enrollment data.

Survey participants were primarily tenure and tenure-track faculty (73%) with the remaining participants divided into three other categories: graduate instructors (14%), adjunct faculty (6%), and other (7%). Using the Carnegie classifications, participants identified their institutions as an associate's college (14%), a baccalaureate college (5%), a master's college or university (24%), or a doctorate-granting institution (57%). (For an explanation of these classifications, see the Carnegie Foundation's website at www.carnegiefoundation.org/Classification.) Participants were affiliated with English departments (62%); with Humanities, Rhetoric, Communication, Technical Communication, Composition, Language and Literature, and Writing departments (27%); and with Engineering, Management, Biology, and Education departments (11%). These departments offered a variety of degrees with participants identifying the following as their departments' highest degree offered: twenty-four percent (24%) awarded no degree or certificate in technical communication, 30% awarded undergraduate certificates or bachelors degrees, 19% awarded masters degrees, and 21% awarded doctoral degrees. Four percent (4%) of participants selected "other" as the highest degree with no clarification.

What Courses Are Being Offered?

Survey participants described a total of 197 courses. Forty-nine percent (49%) of these courses were identified as basic or advanced technical writing courses, 43% could be placed within easily defined course categories, and 9% were not easily categorized. Table 1 lists the twenty course categories identified by two or more participants.
Individual courses not easily categorized and, therefore, not listed in Table 1 include Ethics, Foundations of Technical Writing, Management and Organizational Communication, Public Relations, Teaching Technical Writing, and Marketing. The diversity of courses participants identified reflects the curricular diversity of technical communication programs and appears to contribute to the large number of documents taught and assessed in courses. The number of documents required in these courses and the effects of this number are discussed in more detail later in the article.

**Table 1**

<table>
<thead>
<tr>
<th>Course Content</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic technical writing</td>
<td>83</td>
<td>42%</td>
</tr>
<tr>
<td>Advanced technical writing</td>
<td>13</td>
<td>7%</td>
</tr>
<tr>
<td>Editing</td>
<td>11</td>
<td>6%</td>
</tr>
<tr>
<td>Online/web design</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>Reports</td>
<td>8</td>
<td>4%</td>
</tr>
<tr>
<td>Document Design</td>
<td>7</td>
<td>4%</td>
</tr>
<tr>
<td>Documentation</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td>Specialized writing courses</td>
<td>5</td>
<td>3%</td>
</tr>
<tr>
<td>Communication</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Proposals</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Style</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Usability</td>
<td>4</td>
<td>2%</td>
</tr>
<tr>
<td>Argumentation</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Capstone or senior thesis</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Engineering writing</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Publications Management</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Rhetoric</td>
<td>3</td>
<td>2%</td>
</tr>
<tr>
<td>Information design</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Oral Presentations</td>
<td>2</td>
<td>1%</td>
</tr>
<tr>
<td>Visual Rhetoric</td>
<td>2</td>
<td>1%</td>
</tr>
</tbody>
</table>

**At What Academic Levels Are These Courses Taught?**

Responses revealed three academic levels at which courses are taught: undergraduate, graduate, and combined graduate and undergraduate courses. As Table 2 shows, a large majority of identified courses were taught at the undergraduate level while graduate and combined courses were almost evenly divided. Because so many courses were taught at the undergraduate level, findings about these courses are later reported by individual levels to differentiate common practices at each level and to allow separate conclusions about assessment in graduate and combined courses.
Table 2

Academic Level of Surveyed Courses

<table>
<thead>
<tr>
<th>Course level</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>142</td>
<td>73.2</td>
</tr>
<tr>
<td>Graduate</td>
<td>24</td>
<td>12.4</td>
</tr>
<tr>
<td>Combined undergraduate and graduate</td>
<td>28</td>
<td>14.4</td>
</tr>
<tr>
<td>No level provided</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>197</td>
<td>100.0</td>
</tr>
</tbody>
</table>

How Many Students Are Typically Enrolled in These Courses?

Most technical communication courses, whatever the academic level, enroll either 11-20 students (48.4%) per class or 21-30 students (35.6%). As Table 3 illustrates, undergraduate courses most frequently enroll over 20 students per course (45.1%). Graduate (66.7%) and combined courses (75%) tend to enroll 11-20 students per class.

Table 3

Course Enrollment by Academic Level

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Undergraduate</th>
<th>Graduate</th>
<th>Combined</th>
<th>All courses</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 or fewer</td>
<td>6.3%</td>
<td>16.7%</td>
<td>17.9%</td>
<td>9.3%</td>
</tr>
<tr>
<td>11-20</td>
<td>40.1%</td>
<td>66.7%</td>
<td>75.0%</td>
<td>48.4%</td>
</tr>
<tr>
<td>21-30</td>
<td>45.1%</td>
<td>12.5%</td>
<td>7.1%</td>
<td>35.6%</td>
</tr>
<tr>
<td>Over 30</td>
<td>8.5%</td>
<td>4.2%</td>
<td>0%</td>
<td>6.7%</td>
</tr>
</tbody>
</table>

The effects of these enrollment numbers are not clearly addressed in the survey, but participant comments and concerns about optimal assessment practices and high enrollment numbers do suggest that these kinds of enrollment numbers decrease instructors’ ability to access students as effectively and efficiently as they would like. These concerns are explored in more detail in the next section.

Survey Results

For each course they identified, participants responded to four identical questions about assessment methods:

1. Which of the following assignments do you use throughout the course to assess students’ achievement?
2. In addition to using the specific assignments listed in the previous question, how frequently do you incorporate these formative (developmental) assessment strategies into the course?

3. Consider how you provide students with assessment response or feedback in the course. How often do you incorporate these forms of response or feedback in the course?

4. Finally, given the constraints under which you and your students work, how does your current assessment practice in this course differ from what you would consider optimum assessment practice?

Responses to the first three questions will be reported in two groups: results for all 197 courses and results for courses categorized by academic level (undergraduate, graduate, and combined). Within each group, results are divided by most frequently assessed documents, most frequently employed formative assessment activities, most frequently employed response or feedback methods. At the end of both sets of results, participants' answers to the fourth question are described and discussed.

**Overall Assessment in Courses**

**Documents Assessed**

In the 197 identified courses, participants assigned a total of 1816 documents, averaging 9.2 assignments per course. Of these, 95% (1727 assignments) were identified from the list of 29 documents. An additional 5% (89 assignments) were recorded in the "other" category and could be categorized into 11 document types. Thus, participants identified a total of 40 assignment or document genres taught in their technical communication courses:

1. Abstract or executive summary
2. Annotated bibliography
3. Article-length empirical research report or study
4. Book review
5. Brochure or other promotional materials
6. Case studies
7. CD/DVD
8. Correspondence (letters, email)
9. Essay
10. Final exam
11. Literature review
12. Memo
13. Oral presentation
14. Pop quiz
15. Product description
16. Progress report
17. Proposal
18. Reading response (electronic or discussion forum)
19. Reading response (handwritten or word-processed)
20. Recommendation report
21. Resume or other job search materials
22. Short empirical research report
23. Text exercises
24. Training manual
25. Unit exam
26. Usability test
27. Usability test report
28. User manual or other documentation
29. Web pages or site
30. Graphics*
31. Portfolios*
32. Document editing*
33. Technical instructions*
34. Planning documents*
35. Analyses*
36. Software tutorials*
37. White papers*
38. Backgrounders*
39. Reference cards*
40. Document redesigns*

*Not on original list
The most five most frequently assigned documents in the 197 courses were the oral presentation (7.3%), the proposal (7%), the memo (7%), correspondence (6.5%), and the progress report (6.1%). Reports, including progress reports (6.1%), recommendation reports (4.6%), usability reports (3.4%), and empirical reports (3%), were the most commonly taught genre. Frequently produced documents correspond closely with Paul Anderson's 1985 survey of workplace writing, yet many of the other documents required (see Figure 1) seem to reflect a growing response to industries, particularly multimedia and hypermedia industries, that have begun to hire technical communicators since the mid-1980s. This list also clearly demonstrates that technical communication instructors are not only teaching relevant workplace documents, but they are also relying on traditional academic assessment instruments, such as text exercises (4%), essays (2%), and exams and quizzes (7%), to evaluate their students.

![Figure 1: Most Frequently Required Documents and Academic Assignments](image)

Formative Assessment Activities

Formative assessment activities take place during the development of a document or assignment, prior to final evaluation. Such activities, according to Lee Odell, make assessment or evaluation of student work an ongoing part of the learning and writing process, not a summative comment about a final product. These formative activities may be completed during class time or after, and they require varying amounts of instructor and student input to perform.

Participants identified in-class question and answer (M = 3.32), instructor document review (M = 3.14), peer document review (M = 3.08), and checklists/guides/rubrics (M = 3.2) as the most common forms of formative assessment used in their classes. Face-to-face conferencing with students (M = 2.82) and electronic discussion or email about assignments (M = 2.39) were less commonly used while
expert document review (M = 1.77) was the least commonly used assessment method. Participants identified 17 other formative assessment activities. Of these, only four were identified by more than one participant: portfolio reviews, student self-evaluation, usability tests, and oral presentations to gain constructive feedback.

**Response or Feedback Methods**

During formative and summative assessment, instructors typically provide students with comments or feedback of some sort. (For a more detailed examination of these kinds of responses, see Sam Dragga’s “Responding to Technical Writing.”) Instructors may call upon other individuals (peers, client, or subject matter experts) for feedback as well (Dillon; Simkin and Ramarapu; Bergland).

Participants in this survey most commonly provided feedback to their students using oral (M = 3.20) and handwritten (M = 3.48) feedback. They less frequently provided feedback using electronic comments (M = 2.54). Students provided oral (M = 2.87) formative feedback to one another most frequently but sometimes provided handwritten (M = 2.54) and electronic comments (M = 2.03). Experts were rarely, if ever, asked to provide oral (M = 1.65), handwritten (M = 1.51), or electronic (M = 1.43) formative comments to students. Participants offered four other response or feedback methods: meetings with project teams, grading checklists, periodic reports of individual grades and class standing, and summary reports of class grades and comments.

**Surveyed Courses by Academic Level**

Because courses were identified by academic level, it was possible to examine whether and, if so, how student assessment practices differed in undergraduate, graduate, and combined courses.

**Documents Assessed**

Of the identified 1816 assignments, 72% (1356) were assigned in undergraduate courses, 10% (180) in graduate courses, and 14% (253) in combined courses. The academic level for 1% (26) of the assignments was undesignated. On average, undergraduate courses required 9.5 assignments per class, graduate courses 7.5 documents per class, and combined courses 9 assignments per class. Figure 2 identifies the 23 most commonly assigned documents and compares their use across academic levels.

As Figure 2 shows, all courses, regardless of academic level, require progress reports, recommendation reports, reading responses, annotated bibliographies, quizzes, and essays almost equally as often. Undergraduate courses tend to survey genres, requiring proposals, memos, correspondence, resume and other job search materials, and
abstracts. This tendency to survey genres most likely explains the additional documents taught in undergraduate courses. Undergraduate and combined courses also require text exercises and creation of brochures and other promotional materials more often than graduate-only courses.

Graduate and combined courses focus more specifically on specialized documents; this focus suggests that technical communication majors with specific workplace interests populate these courses. Combined courses assign user manuals, usability tests and reports, and product descriptions (including specifications and definitions) more frequently than courses developed for undergraduate or graduate students only. Graduate courses are more likely to require students to make oral presentations; to use electronic posts; and to create web pages or sites, reviews (books, websites, CDs, and software), annotated bibliographies, and short and long empirical reports. Graduate and combined courses use case studies equally as often.

**Formative Assessment Activities**

Formative assessment activities were also analyzed according to their use at different academic levels. To illustrate these similarities and differences, Table 4 reports the modes (most frequently identified responses) in each category.

As Table 4 illustrates, survey participants who most frequently teach undergraduate courses report that they always use in-class question and answer sessions; instructor document review; peer document review; and checklists, guidelines, or rubrics as formative assessment activities in their courses. With the possible exception of peer review, all of these methods are instructor-intensive. Graduate
Table 4

Most Frequently Identified Formative Activities in Courses

<table>
<thead>
<tr>
<th>Courses</th>
<th>In-class question &amp; answer</th>
<th>Electronic discussion /email</th>
<th>Face-to-face conferencing</th>
<th>Instructor document review</th>
<th>Peer document review</th>
<th>Expert document review</th>
<th>Checklists/guides/rubrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>4 Always</td>
<td>2 Sometimes</td>
<td>3 Often</td>
<td>4 Always</td>
<td>4 Always</td>
<td>1 Never</td>
<td>4 Always</td>
</tr>
<tr>
<td>Graduate</td>
<td>4 Always</td>
<td>2 Sometimes</td>
<td>2 Sometimes</td>
<td>3 Often</td>
<td>2 Sometimes</td>
<td>2 Sometimes</td>
<td>4 Always</td>
</tr>
<tr>
<td>Combined</td>
<td>4 Always</td>
<td>4 Always</td>
<td>3 Often</td>
<td>4 Always</td>
<td>4 Always</td>
<td>2 Sometimes</td>
<td>4 Always</td>
</tr>
</tbody>
</table>

Instructors report that they always use in-class question and answer sessions and checklists, guidelines, or rubrics as formative assessment activities. These activities are less time-consuming and typically completed during class time. Instructors who teach combined courses, however, appear to use more formative feedback than instructors of graduate- and undergraduate-only courses: they report that they always use in-class question and answer sessions, electronic discussions/email, instructor document review, peer document review, and checklists, guidelines, or rubrics as formative assessment activities. These instructors also use face-to-face conferencing and expert document review more than undergraduate-only instructors. Overall, instructors of combined courses appear to use formative activities that are both time- and instructor-intensive more frequently than instructors of graduate or undergraduate courses. The survey findings did not indicate why this trend exists.

Response or Feedback Methods

The most frequently reported response methods appear in Table 5. Undergraduate instructors most often reported that they never ask experts or clients to respond to students, although graduate and combined instructors sometimes use handwritten and electronic expert feedback. Undergraduate instructors report that the only method that they always use is handwritten responses while graduate instructors report that they always use oral and handwritten feedback methods. Combined instructors report that they always use teacher oral, handwritten, and electronic response methods as well as student oral response methods. Like the previous findings about formative activities employed in different academic levels, instructors of combined courses incorporate more feedback or response methods into their courses than instructors of graduate or undergraduate courses.
Table 5
Most Frequently Identified Response or Feedback Methods by Academic Level

| Courses  | Teacher |  | Student |  | Expert/Client |  |
|---------|---------|  |---------|  |---------------|  |
|---------|---------|  |---------|  |---------------|  |            |  |            |  |
| Undergraduate | 3 | Often | 4 | Always | 2 | Sometimes | 3 | Often | 2 | Sometimes | 1 | Never | 1 | Never | 1 | Never |
| Graduate | 4 | Always | 4 | Always | 2 | Sometimes | 2 | Never | Sometimes | 1 | Never | 2 | Sometimes | 2 |
| Combined | 4 | Always | 4 | Always | 4 | Always | 4 | Always | 2 | Sometimes | 3 | Never | 1 | Sometimes | 2 |

Optimum Assessment

Finally, participants were asked how their current assessment practices and methods compared to what they would consider optimum assessment practices. Participants commented on 167 of the 197 identified courses. Eighty-five percent (85%) indicated that their assessment practices could be improved. Improvements can be placed into 23 different categories, but the majority of these improvements belonged to 6 areas: more client feedback (15%); more face-to-face conferences (10%); improved technology and technology use (10%); more instructor formative feedback (9%); smaller class sizes (6%), which would allow improved opportunities for other activities; and more peer review (6%). What is interesting about these improvements is that three of them (client feedback, face-to-face conferencing, and instructor formative feedback) all require a greater instructor time investment while only one improvement (smaller class size) would actually help instructors to make this investment.

Revising or Enhancing Student Assessment Practices

The responses to this survey reveal what many technical communication instructors have long suspected—instructors and students of technical communication have a diverse repertoire of documents (both workplace and academic) for which they are responsible, and they engage their students in a variety of formative assessment activities using a wide range of response or feedback methods. The diversity of assignments and activities means that technical communication instructors teaching at all levels require their students to complete multiple assignments throughout a course's duration, ranging from an average of 7.5 assignments per class in graduate courses to 9.5 in
undergraduate courses. These graded assignments are in addition to the formative assessment activities in which instructors and students engage. Given a ten-week quarter or a fourteen-week semester, instructors appear to be assessing their students' work on at least a weekly to biweekly basis.

Yet, despite this frequency, participants desire improvement in their current assessment practices. For example, they wish to improve their students' contact with experts or clients and note that they would like to find and employ better technologies for promoting electronic discussions outside of their classes. They also want additional opportunities for their students to revise work, more face-to-face conferencing opportunities, and the means to incorporate more portfolio assessment into their courses. Many of these same instructors also identified obstacles that prevent them from achieving these optimal practices: large class sizes (up to 45 students in some undergraduate courses), heavy teaching loads (as many as 5 classes per semester), and quarterly (10-week) terms. The lack of time to assess students optimally was the greatest challenge these instructors identified.

The Need For Reconsideration

Considering the diversity of assignments, the number of formative activities used in courses, the variety of responses provided to students, and the challenges to optimal assessment instructors discussed, these questions arise: Do technical communication courses need improved assessment practices, or are instructors already providing all the assessment that is needed? In either case, how much student assessment is enough? Survey responses suggest that assessment practices may be overly comprehensive, leaving instructors with a perennial challenge: how to promote and assess learning in their students without sacrificing themselves to the constant chore of grading and evaluation. While responses clearly indicate a problem with such extensive assessment, they also suggest three site-specific instructional areas where improvements might occur: in the department in which courses are taught, in the programs within those departments, and in the courses themselves.

Departmental Suggestions

At the departmental level, administrators should consider how class sizes affect instructors' abilities to assess student work optimally. Such consideration seems particularly important at associate, baccalaureate, and masters institutions where enrollments often exceed 21 students per course. In the words of some survey participants, a high student enrollment and the correspondingly high number of documents minimize an instructor's ability to give optimal formative and summative comments on student work.
Another important departmental consideration is instructors’ and students’ access to technology that would support formative assessment activities. Internet- or network-based technologies, such as discussion boards and document file-sharing, allow instructors to assign formative assessment activities as homework that students share and comment on outside the classroom. Threaded discussion lists, identified by another participant, would allow “more peer review.” In addition to providing improved opportunities for peer feedback, electronic technologies might also help instructors to enlist experts or clients to give more feedback to students as they develop their documents. Email, for example, can be a convenient means for students to maintain a closer relationship with their clients and to secure their clients’ assistance and guidance more readily. As some participants noted, access to technologies can demonstrate [how to] handle virtual communication situations and simulate the workplace. Using technology to complete peer review assignments also reduces the class time for these activities and places the bulk of the assessment task on the students as they exercise their technological and critical skills simultaneously.

**Programmatic Suggestions**

In technical communication programs, instructors may need to communicate what documents they are assigning in specific courses and within what contexts these documents are taught to eliminate duplication of efforts. Or, certain courses may be designated as the primary location for the teaching of specific documents while other courses reinforce this instruction through additional practice or different contexts. Of course, this kind of arrangement may require programs to reconsider the sequencing of courses, a strategy that may also allow instructors to reduce the number of assignments required in each course. Considering that the average number of assignments ranged from 7.5 to 9.5 in all courses, the elimination of even one assignment per course would help instructors to reduce the evaluation burden.

This issue suggests another important consideration made evident by the participants: the need to streamline technical communication programmatic course offerings. While this survey did not review the courses specific programs offer, its participants did identify highly diverse course offerings across programs. While some curricular diversity may be explained by site-specific needs, which Allen defines as “different courses and programs serving the needs of different regions, institutions, and students,” it may also indicate a lack of focus in technical communication curricula (366). Reassessing programmatic offerings, in light of site-specific needs, should help instructors to identify overlap or overextension in courses and assist them in compacting the number of documents assessed in individual courses.
Course Suggestions

Finally, instructors should reassess their evaluation of students within their own courses. In doing so, they might consider how efficiently they have designed their course assessment cycles. One participant described such a reassessment in this comment: "I'm currently revising the course so that the design is assessment-driven throughout the semester. For example, I think I will have students working on one big project throughout the term and complete parts of it throughout the semester to illustrate various stages of drafting—outlining, drafting, revising, and editing." Similarly, another participant who was pleased with current assessment practices wrote: "I like that the assignments are integrated and the assessment is frequent and ongoing." Developing assignment cycles, as suggested by these participants, is an efficient way to require students to produce a variety of documents and to teach important workplace writing skills, such as document recycling or repurposing and editing. Because documents often build upon one another, the evaluation may be simpler and less time-consuming.

Another means of reducing the evaluation burden is to incorporate more client feedback in courses, described as advantageous because it provides another voice for feedback and making it high on the list of optimal feedback methods. Many survey participants, however, noted the difficulty of getting clients to participate in this kind of feedback: "I would like for clients to be more involved in assessment, but time constraints . . . make that difficult;" and "More client-provided feedback would be nice, but coordinating usability tests with external clients is tactically difficult."

Participants whose students currently work or have worked with experts or clients, on the other hand, described the challenges that come with this feedback method: "Client-based projects require assessment by the client as well as the teacher. In developing software documentation, client needs often change throughout the semester. This can cause some difficulty in setting up the criteria for the assessment of students' work. Ideally, this criteria would not change throughout the semester" and "I would like to have 'experts' review job packets, but I have not been able to find business people who will follow through." These cautions are important for instructors to consider if they are planning to incorporate expert or client review into their classroom assessment repertoire.

Several survey participants also suggested means by which instructors could reduce their evaluation workload by improving their assignments. For example, participants noted that incorporating more non-graded assignments, such as "non-graded exercises and presentations," into their courses would reduce their workload and "remove the stress on grades." Similarly, several participants noted that they would like to improve their students' abilities to self-monitor or self-assess their work. As an activity for promoting self-monitoring or
assessment, a participant described the following evaluation of a previous course: "I taught this course last semester, and it was not successful . . . . [To improve the course next time,] I’d like to include . . . a reflective process type of evaluation. For example, students could write an explanation/justification for the changes they make in a text." Another participant echoed this sentiment: "I’d like to teach them how to assess their own writing." Such activities, these participants suggest, would reduce the instructor’s evaluative burden while at the same time help students to become more effective evaluators of their own work.

Conclusion

This survey demonstrates that, in a wide variety of courses at both the graduate and undergraduate level, technical communication instructors engage in positive practices that allow them to offer their students multiple and varied feedback and assessment. The breadth of course offerings and assignments identified in the survey is testament to the curricular diversity of both graduate and undergraduate curricula in the field (See Johnson-Eilola and Selber for a more detailed discussion of the graduate curricula). Equally diverse are the assessment activities and practices instructors incorporate into their courses. Although they are critical of their own assessment practices, most instructors appear to engage their students in optimal assessment activities and practices already: they connect “teaching, learning, and assessment” and promote learning with a tool “that assists instructors in being fair, thoughtful, and creative when assessing student work” (R. Anderson 13). This thoughtfulness and care is further exhibited in participants’ concerns about improving their courses and their assessment practices.

Despite the positive aspects of technical communication instructors’ assessment practices, these practices are frequently overwhelming and burdensome to instructors. Many participants expressed frustrations with the effects of class size and course loads on their ability to assess well and questioned the efficacy of their assessment practices as a whole. Although they assess students on a weekly to biweekly basis and frequently use formative assessment, they, nevertheless, felt their assessment practices could and should be improved; and they rarely credited themselves for the comprehensive evaluations they are already performing.

To assist these instructors in improving their assessment practices and, perhaps, to relieve the burden of these practices, this article has proposed that departments, programs, and instructors reconsider what assignments are assessed in technical communication courses, how these assignments are assessed, and how often they are assessed. More research in technical communication assessment, however, is needed to determine which practices and response methods are most effective in improving student work.
Future research might also more closely examine the commonly taught documents in technical communication courses to determine how valuable and transferable these documents are to the workplace. Such research would update landmark studies like Anderson's 1985 survey and provide instructors with a current view of the documents that are relevant in technical communication instruction at all levels. With this knowledge, instructors could more easily identify which documents to assign and assess and which ones to eliminate or, at least, de-emphasize. Such information would also help program directors shape curricula to streamline the number of documents instructors assign and, therefore, assess throughout a course of study.

If the responses of survey participants are indicative of attitudes and practices of most technical communication instructors, then we have much to be proud of: we work closely with our students, we are aware of our assessment options and strategies, and we practice these strategies with a constant eye on student improvement, yet we have much more to learn to accomplish our assessment goals. We need to know more about how much assessment is enough—for our students' benefit and for our own.

Works Cited


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