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Programmatic Perspectives

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Issue Preview

Tracy Bridgeford

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This issue marks the end of our second year of publication as well as a transition for Karla Saari Kitalong, who is stepping down as Editor and assuming the Book Review Editor position. Be sure to read our tribute to Karla later in this section. With this issue, we also welcome Michael Salvo, Purdue University, as Karla's replacement and Mark Hannah, Associate Editor and PhD candidate at Purdue.

The issue opens with a piece from Carol Johnson and Norbert Elliot of the New Jersey Institute of Technology. Their article, which focuses on assessing student performance in technical writing programs, is the first of its kind both for *Programmatic Perspectives* and in its use of statistical analysis to quantify student and program progress. By tracking and analyzing student performance over short and long terms, Johnson and Elliot were able to pinpoint student weaknesses and alter their program to address those needs. They propose a thoroughly described model based on five years of results that is fully adaptable to other technical writing programs.

Before Michael Salvo came on board, we were lucky to have accepted and published an article by him and his colleagues at Purdue, Jennifer Bay, Mark A. Hannah, and Karen Kaiser Lee, which appears as this issue's second article. We can assure readers that Michael was not involved in the editing or publishing of this article. After reading the article, we're sure you see why we asked him to join our editorial team. The focus of their is the Purdue Professional Writing Program's Semester @SEA initiative, which was intended to foster community engagement and student activism through an ongoing partnership with a community organization. Each author held a different role in @SEA, and they report on their experiences and observed developments. Engagement as immersion, adaptation

to emerging postindustrial workplaces, enhancement of student leadership and transactionality, and pedagogical transfer are some of the topics discussed. From their observations, the authors give advice for partnership-based innovation within professional writing programs.

In this issue's Program Showcase, David Beard describes the creation and growth of the Writing Studies and Professional Writing majors within the Department of Writing Studies at the University of Minnesota Duluth. Although the intellectual argument for the existence of a Writing Studies major plays a large role in Beard's description, he completes the picture of UMD's program by articulating the institutional resources available to the major, and the core courses for both the Professional Writing and Writing Studies majors.

Bill Williamson writes this issue's editorial in which he begins a discussion of emerging online technical communication programs. He raises questions about certification, the Body of Knowledge, and integrity of online programs. In his exploration of new programmatic developments, Williamson urges the CPTSC and its members to look to the future, encouraging increased intellectual exchange and the maturation of promising Council initiatives.

We include in this issue memorials for Stuart Brown who was instrumental in New Mexico State's Technical Communication program. Patti Wojahn and Stephen A. Bernhardt share their memories of his work, his life, and his spirit.

Joshua Prenosil of Purdue University reviews Clay Spinuzzi's *Network: Theorizing Knowledge Work in Telecommunication* in this issue's book review. The work comes highly recommended by Prenosil for its clear, situation-based discussion and comparison of actor-network and activity theories. Prenosil finds Spinuzzi's work adaptable to administrators in terms of pedagogy as well as understanding organizational dynamics.

As always, we welcome your submissions focusing on all areas of programmatic development and program administration. Work will soon begin on Volume 3 publications for March and September 2011. Also, any and all commentary on this or previous issues is invited if you wish to respond.

Notes of Appreciation and Welcome

Transition

Karla Saari Kitalong

Michigan Technological University

More than a decade ago in graduate school at Michigan Tech, Bill, Tracy, and I became friends. We read, wrote, and laughed together, planned our futures as university professors and program administrators, and imagined the journal we would someday edit. That journal, *Programmatic Perspectives*, has become a reality, as have many of the other visions we shared. Bill and Tracy have cemented their roles as technical communication program administrators, Tracy at the University of Nebraska Omaha and Bill at Saginaw Valley State University. In contrast, I moved into more general writing program administration and my research interests, which were never solidly in the program administration realm to begin with, have veered even more sharply away from that turf in recent years. Actually, WPA work and technical communication program administration are closely related, but the NSF-funded usability research with which I am involved, while unfailingly interesting and productive, makes increasing demands on my time and energy.

So with this issue I'm stepping down as co-editor of *Programmatic Perspectives*. It was a difficult step, which I tried to avoid having to make. I've truly enjoyed working with the CPTSC Executive Board and membership, with the authors who have trusted *Programmatic Perspectives* with their work, and especially with my good friends, Bill and Tracy. But I know that it's the right decision for me and for the journal. Any residual doubts I may have harbored were assuaged once Michael Salvo of Purdue University agreed to assume the co-editorship.

I've known Michael for a long time. He's well published in technical communication and is a member of the editorial board of the Technical Communication Library of the E-Server, an online repository of technical communication research. He was a founder of *Kairos* and continues to serve on its editorial board. I can't think of a better choice for co-editor of *Programmatic Perspectives*, and I look forward to the journal's evolution over the next several years.

I will miss my in-depth involvement with *Programmatic Perspectives*, but I will stay involved as the review editor, beginning with Volume 3, Issue 1. Send me your ideas for book, media, website, and software reviews or review essays

that inform the work of technical communication program administrators. What are the resources that help you do your jobs? I hope you'll consider sharing them with others through the lens of *Programmatic Perspectives* reviews.

Thanks for reading.

Transition

Laurence José

Grand Valley State University

I became the associate editor for *Programmatic Perspectives* in Fall 2008.

At that time, I was a PhD candidate at Michigan Technological University who was in the midst of writing her dissertation. Of course, I welcomed the opportunity to expand my professional landscape. Looking back at these last two years, I can say that my involvement with the journal has been one of the most rewarding experiences of my graduate student career. Serving as the associate editor not only gave me the chance to participate in the making of a new scholarly space, but it also deepened my own reflection on how we as a community define, articulate, and situate programmatic research within the field of technical communication. For instance, besides defining procedures to streamline the editorial process, working on the editors' manual became a way to enact productive questions regarding the scope of the journal and its role for defining new ways to articulate the intellectual dimension characterizing the work of program administrators. Hence, although the work I was performing was deeply rooted in "practice," it also gave me new and precious insights into the theory and disciplinary identity of technical communication.

As I am moving to a new stage in my career, I would like to take this opportunity to express my gratitude to Tracy Bridgeford, Karla Saari Kitalong, and Bill Williamson for giving me the opportunity to serve on the editorial team and for fostering an environment where questions and dialogues were always welcome and encouraged. It is under their impetus and their desire to define an editorial philosophy rooted in "mutual mentoring" (See Kitalong editorial in volume 1.2) that the journal has become such an intellectually dynamic and stimulating space. I will miss serving on the editorial team but hope to continue to contribute at another level.

Tribute and Welcome

Bill Williamson

Saginaw Valley State University

Tracy Bridgeford

University of Nebraska at Omaha

As we complete volume two of *Programmatic Perspectives*, and close our fifth year of work on the journal, we find it is time to pay thanks to the people who have helped get us here and to acknowledge some transitions in roles and new additions to our editorial staff.

Karla Saari Kitalong, one of the original three editors of *Programmatic Perspectives*, let us know in mid-2009 that she needed to reduce her responsibilities to the journal in anticipation of investing greater time in other projects. Around the same time, Kathryn Northcut was stepping down as our original Book Review Editor and thus offered Karla the opportunity to make a transition of roles within the journal staff.

We cannot emphasize enough how critical was Karla's role in the process of proposing the journal initially and producing this publication once we had secured the support of the CPTSC Executive Board and general membership. Karla took on the very challenging role of Acquisitions Editor for *Programmatic Perspectives*. This meant that she and Laurence José, Associate Editor, were the point of contact for authors during the first three years of the journal's existence. Together they handled initial reviews of manuscripts, managed the peer review process, and drafted most of the response letters to authors. Such work requires diligence, care and vision, and is crucial to our editorial process.

Karla approached her work for *Programmatic Perspectives* the way she does most things—with humility, grace, and quiet resolve. She is slow to claim even her justifiable share of any accolades in the offering and quick to accept responsibility for short comings sometimes only she sees. If you've worked with Karla, you've heard her giggle and her all-out laugh. However, personality alone does not get the work done. It is therefore a good thing that Karla also has tenacity to spare and that she balances rigor with effective, respectful editorial vision. Karla has helped us assemble two years of solid scholarly content and had a hand in developing more that will appear in future issues.

Laurence makes a transition as well from Associate Editor, a position she held while completing her doctoral studies at Michigan Tech, to member of the Review Board for the journal. Laurence too was instrumental to the journal

in its early phases of development. She brought editorial experience to *Programmatic Perspectives*, and played an important role in creating our editorial policies and procedures.

Programmatic Perspectives is indebted to these colleagues.

Several months of work, including many hallway, phone, and electronic mail exchanges, resulted in *Programmatic Perspectives* receiving a commitment from Michael Salvo of Purdue University to become the next member of our editorial team. He brings Mark Hannah with him as Associate Editor. These gentlemen are handling their own introduction in a companion piece, so we will take this opportunity only to welcome them to *Programmatic Perspectives*.

As we close this note, we want to acknowledge and express our gratitude to all of the people who have served so far in the editorial process for the journal. We list these colleagues here and offer our sincere thanks for their contributions.

Michigan Technological University

Karla Saari Kitalong, Editor

Laurence José, Associate Editor

University of Nebraska at Omaha

Greg Thompson, Current Associate Editor

Kristin Gabel-Beccard, Associate Editor

Sam Evans, Associate Editor

Fred McVaugh, Associate Editor

Saginaw Valley State University

Jodi Radloff, Assistant Editor

Initial Thoughts

Michael J. Salvo

Purdue University

I feel both great happiness and trepidation as I accept the responsibilities of Editor at *Programmatic Perspectives*. I can never nor would I try to replace Karla Saari Kitalong, who has created so many new opportunities for herself and others that there aren't enough hours in her day. Thank you, Karla, for trusting me with the journal you, Bill, and Tracy have worked so hard to create and launch in service to this very important and valuable organization, the Council for Programs in Technical and Scientific Communication. As readers of

the journal well know, this publication offers an important, if all too rare, outlet for administrative research, articulating a scholarship of program building and innovation. Although other journals sometimes publish individual essays that focus on issues of concern to administrators and other organizations serve the needs of writing specialists, CPTSC serves a specialized need, and *Programmatic Perspectives* is the one place where the unique nexus of administrators of writing programs in scientific and technical communication have a home and consistent voice. *Programmatic Perspectives* is focused on and dedicated to this productive community.

As Editor, Karla has worked effectively to help administrators articulate their hard-won knowledge and prepare it for presentation in the most rigorous and accessible form available. That patient, steady guidance is my model, and as any of you who have worked directly with Karla know, we are all lucky to have her as our colleague. Luckily for *Programmatic Perspectives*, Karla has agreed to stay on as Reviews Editor, and I hope to enlist her as a manuscript reviewer.

So Karla will be very hard to follow as she has established the voice and direction of this new journal, worked so effectively to bring new essays and voices, and articulated a new electronic format that sustainably offers open access to the very best administrative research the community produces.

My goal as Editor is to listen closely to CPTSC members and pay close attention at the annual conference, and I may have already been in contact with some of you, asking you to turn your presentations into manuscripts. My role is one of service: service to the community and to act in service to our scholarly voice and need. As such, it is a reflection of our ongoing conversations and concerns, and my goal is to act as catalyst to bring the best expressions of those conversations to fruition as peer-reviewed research articles and program profiles. Moreover, I see the opportunity to expand publication in *Programmatic Perspectives* to as wide a potential author pool as possible, inviting new voices into our conversation to represent new and emerging programs growing to meet the needs at their home institutions as well as existing programs being revamped by a new generation of administrators facing emerging challenges of the administering programs in technical, scientific, and professional writing and communication into the second decade of the twenty-first century.

Therefore, I will be working with you all to attract readers among these new scholars, teachers, administrators, and professionals who want to read about and share their own experiences to both feed the CPTSC and act as gateway for new members and participants—bring in some new faces, new ideas, articulate new challenges—while supporting new administrators with the substantial expertise and knowledge base CPTSC has created since its founding in 1974, supporting, expanding, and challenging its members with a journal that is as

interesting to read as it is useful. In addition to the challenges of promoting programs and research, their development and evaluation, and acting as a voice of the community, *Programmatic Perspectives* can also bring new members into CPTSC, encourage new voices, conversations, and directions for our communities and institutions. Mark Hannah, my trusted colleague and friend at Purdue, has some innovative ideas for encouraging new voices that he describes in his introduction below in his new role as Associate Editor.

Introduction

Mark A. Hannah

Purdue University

I am excited to step into the role of Associate Editor and continue the excellent work begun by Laurence José. Early in the design of the journal, there was a section titled “emerging voices” that was intended to open space for new scholarly voices and encourage them to contribute their work. It was an important and still timely goal that I plan to pursue. Overall, I see my role as encouraging, inviting, and working with new authors and their manuscripts so that *Programmatic Perspectives* fulfills its goal of encouraging new voices, and preparing this work for publication, which ultimately will attract new readers on new campuses. Accordingly, we will continue celebrating the voices of emerging scholars and attracting new administrators to CPTSC as authors, contributors, and participants.

Undergraduate Technical Writing Assessment A Model

Carol Siri Johnson

New Jersey Institute of Technology

Norbert Elliot

New Jersey Institute of Technology

Abstract. This article describes an assessment process developed for an undergraduate technical writing course at a public research university. To document program outcomes, we used a variety of statistical methods. To describe our process, we present longitudinal performance data collected over five years (fall 2004 through spring 2009) on 636 students. After providing a brief overview of the measurement concepts and statistical tools that we employ, we describe our process in five phases: designing the variable model to ensure construct validation; designing the assessment methodology to ensure content validation; designing the sampling plan to address economic constraint; designing the data analysis to articulate the validation argument; and using the assessment results to ensure consequential validation. Our intention is to provide a model that can be applied to other institutional sites and to encourage others to use it, tailoring the model to their unique needs.

Keywords. assessment, constructed response, educational measurement, evidence-centered design, ePortfolios, program assessment, technical communication, writing assessment

Technical writing instruction is increasingly important in the twenty-first century. Often dismissed as a mere skill, technical writing is a vehicle for empowerment in our multinational, multicultural, multilinguistic global culture. As contemporary society has become more dependent on knowledge, Charles Bazerman and Paul Rogers (2008) observed, the economic value of information and the texts reifying that information have both increased. As it became apparent that the digital revolution was to have an impact similar to that of the industrial revolution, writing in the professions began to draw increasing attention. As Anne Beaufort (2007, 2008) has demonstrated, such attention to professional writing has yielded research on the importance of workplace writing, the processes and practices that support it, the impact of

institutional structures, the role of shifting technologies, and the socialization processes that occur as writers gain workplace experience.

As might be expected, teaching and assessing technical writing remains complex.¹ Instruction often requires tasks that use complex print, auditory, and visual processes; assessment requires that such tasks be evaluated. Within a global culture fueled by digital innovation, the traditional demand that students be able to communicate in a variety of ways to a variety of audiences takes a new turn: Students must be able to demonstrate their ability to effectively design digital environments to host their work, must be able to demonstrate clear style and accurate usage in their texts so that no unnecessary burden is given to readers, must be able to demonstrate mastery of complex tasks and bring relevant content to those tasks, and must have a firm control of tone so that audiences are aligned with a document's message. Graphic cohesion must be apparent so that task unification is achieved, and key sources of information must be referenced by the student so that the voyage through the vast digital infrastructure is transparent.

In this article, we describe our assessment-driven instructional model. We have rendered the qualities of technical writing quantifiable to more clearly study them, thereby improving our instructional processes. We separated the features of successful technical writing into a variable model, assessing student performance each year in a system of longitudinal study. The number of students within our five-year research sample is large ($n=636$); due to the long-term nature of the study, we can be fairly assured that our resulting analysis yields important information.

¹ We use the term *technical writing* throughout this article. We recognize that technical communication is the overarching construct (Brennan, 2006; Kane, 2006) of *Programmatic Perspectives* and the Council for Professional in Technical and Scientific Communication. In addition, we recognize that the Society of Technical Communication is structuring recent initiatives to build a body of knowledge around concepts of technical communication (Coppola, 2010). A similar emphasis on technical communication is held by the Association of Teachers of Technical Writing. The research reported in this article, however, is based on an undergraduate course that asks students to achieve proficiency with concepts surrounding the construct of technical writing. Technical communication, a related yet distinctly different construct, involves variables different from those described in the model we present in this article. For our work in validating assessment efforts based on the construct of technical communication, see Coppola & Elliot, 2010. Although the design and analytic methods we present in this article hold across both constructs, the practice of assessing, for instance, student ability to demonstrate principles of clear style in a proposal (a task related to technical writing) is quite different from asking a student to demonstrate oral presentation skill in a podcast (a task related to technical communication).

The purpose of this article is to unpack our processes so that others can see them, tailor our model to their specific institutions, and design a process of outcomes assessment that addresses accountability demands from regional and program accreditation agencies (Middaugh, 2010). The method we advocate holds the potential to ensure that technical writing instruction becomes a tool of empowerment for all shareholders—from the students who must be skilled in known and emerging literacies, to the instructors who teach them, to the administrators who must present outcomes assessment for accreditation processes.

Our background assumptions are based on assessment research, especially the work of Brian Huot (2002), Edward M. White (2005), and Robert Broad (2003) in their unified call for contextualism. As Huot (2002) reminded us, writing assessment must be “site-based and locally controlled” (p. 14) because “writing teachers and program administrators must begin to see writing assessment as part of their jobs” (p. 19). This call for localism is true both for the purposes of accountability and for the creation of instructional consensus. Although it is possible to teach without group interaction, we have found that our interactions with instructors have allowed us to expand our pedagogical horizons. The collaborative model upon which our assessment rests has allowed us to theorize and implement our work, thereby rendering third-party intervention unnecessary (see, e.g., Johnson & Elliot, 2004; Coppola & Elliot, 2007). We have shifted from the traditional university culture of isolation to a community-based culture of self-assessment. Instead of repeating the past, self-assessment creates dialogue that enables educators to seek out and incorporate change. This frame of reference is a major shift in educational culture away from the antiquated system of inputs and outputs and has proven to be an approach that can yield important results.

Concurrent with our reliance on research in the field of writing assessment, we have also relied on principles of evidence-centered design (ECD) advanced by the educational measurement community. Fundamental to ECD theory, as advanced by Robert J. Mislevy, Russell G. Almond, and Janice F. Lukas (2003), is that complex assessments must be designed to support course goals *from the beginning*. By designing a performance assessment that will evoke robust student work (i.e., constructed responses requiring precise tasks to be performed rather than general reactions to a prompt) and planning in advance for the kinds of evidence that will be warranted, ECD compelled researchers to think about proof and consequence from the very first stages of program inception (Mislevy, 2007). Thus, the plan for a chain of reasoning (Brennan, 2006, p. 31) to provide evidence should be part of the design itself, not an act that occurs after the design is executed (Messick, 1994). As the *Standards for Educational and Psychological Testing* (American Educational Research Association, American

Psychological Association, and National Council on Measurement in Education [AERA, APA, & NCME], 1999)² remind us, validity, or “delineating the knowledge, skills, abilities, processes, or characteristics to be assessed,” is the most fundamental consideration in developing tests (p. 9). Above all, an assessment must be valid—it must capture the subject matter the student is required to learn. Because we have designed our curricular program to yield information, ECD has helped us to design an assessment program that addresses issues of validation.

In addition to focus on localism and evidence-centered design, the program we present is cyclical—the results of the assessment are used in modifying the course, which then modifies the assessment itself. This process, colloquially termed “closing the loop,” embodies a drive towards assessment processes that everywhere connect accountability and instruction. The Accreditation Board for Engineering Technology (ABET) pioneered this idea of using assessment outcomes as input for change: the ABET *Criteria for Accrediting Engineering Programs* (2006) mandates each program under review must publish educational objectives, maintain regular assessment, and—here is what is new—*use evidence to document that the results of the assessment are used to improve the program*. Our regional accreditation agency, the Middle States Commission on Higher Education (MSCHE) (2006), has similar demands for the assessment of educational outcomes. This type of assessment has been explored in engineering, corporate training, and the military, but it can also be applied to the processes involved in technical writing instruction at the upper division level (and in composition instruction at the first-year level). The implementation may be complex, but the process of defining the variables of instruction, creating a curriculum to deliver them, and assessing the outcomes might be likened to community-based group artwork, where all participants have input and the final forms can be seen in the assessment (Chicago Public Art Group, 2009). Because our work is designed to “emulate the context of conditions in which the intended knowledge or skills are actually applied” (AERA, APA, & NCME, p. 137), our program may be categorized as a performance assessment (Lane & Stone, 2006).

After a brief background discussion on measurement concepts and statistical tools, our performance is presented in five acts: designing the variable model as a way to ensure construct validation; designing the assessment methodology as a way to ensure content validation; designing the sampling plan as a way to address economic constraint; designing the data analysis to articulate the validation argument; and using the assessment results to inform the most important consequence of program assessment—improved instruction. By defining our goals (the variables of our assessment), building a system to teach them, and crafting an assessment to test them, we have become more aware of ourselves

² Hereafter referred to simply as *Standards*.

as teachers. It is in this spirit that we wish to contribute to the continuing Council for Technical and Professional Communication (CPTSC) Research Assessment Project (2008) and the related field of writing assessment (Condon, 2009).

Using Measurement Concepts and Statistical Tools in Technical Writing Assessment

At first glance, statistics and writing seem diametrically opposed: One is analytical, based in math; the other is creative, based in language. Most scholars in the field of technical communication—those who shepherd the construct, or phenomenon, of technical writing—are not well trained in the measurement concepts and statistical terms provided in Appendix 1. The vocabulary is foreign, often appearing to be mere jargon, and learning statistics is simply not intuitive.

Historically, statistical functions were accomplished with complex mathematics because this was the only way large numbers could be processed. Julian Simon and Peter Bruce (1991) found that the origin of the difficulty in teaching statistics was that mathematicians had to develop analytic probability theory and complex formulas to process large combinations. The resultant formulas, which became the foundation of statistics, do not necessarily reflect the purpose of statistics—to provide empirical evidence of phenomenon within complex social systems. Today, with the processing abilities of computers, these complex, hand-calculated formulas are no longer necessary, and statistical analysis is gradually becoming more accessible. In the twenty-first century, it is valuable to gain a basic fluency in statistics because nearly every field uses these measures to drive decisions. Our world is increasingly described in probabilities—in quantum mechanics, in sports, in medicine, in genetics, in the environment, and in the economy.

A basic familiarity with statistics can be achieved in a variety of ways. College textbooks, such as Ralph L. Rosnow and Robert Rosenthal's *Beginning Behavioral Research* (2008), offer the basic understanding we give to students. If researchers are using the most common statistics program in the social sciences, SPSS (now predictive analytics software, PASW) (Norušis, 2011), there is an accessible book written humorously for people who fear statistics (Field, 2005). As well, innovative new ways to understand measurement, such as the fourth edition of *Educational Measurement* (Brennan, 2006), should be required reading for those wishing to become part of a culture of assessment. To remain current in the field, the journal *Educational Researcher* is the best guide.

It is possible, we have found, to break down the elements of a creative act, such as writing, into separate criteria and then collect statistics on those criteria within a community of those trained in English, not in educational measurement.

Although we have used this process with technical writing, it is possible to apply it to music and the visual arts—to any form of assessment where only a performance can allow valid measurement of developed ability (Lane & Stone, 2006).

To begin, a group of professionals must decide on the most important criteria to be assessed and create a rubric with defined variables and an overall holistic score—the variable model of the study. Then the model must be statistically tested in the ways we describe later. After a cohesive model is created, groups of instructors score the creative work, adding another dimension to the critique: a public commitment demonstrating that the curriculum matters.

The primary concept in this campus-based culture of measurement is validation. As noted previously, validation assures that the assessment focuses on capturing the expression of desired student performance: To be valid, a test must be matched to its target behavior. This validity is why program administrators must decide, first, on the most important criteria in any program or course before designing the assessment, which must match those criteria. This process requires consensus on the part of the shareholders in the course or program. Such consensus—in reality, a desire to avoid construct underrepresentation and, instead, ensure that the curriculum will yield optimal student performance—is usually achieved by a series of meetings, online discussions, or both. When completed, this period of planning results in a variable model, an expression of the most important criteria (*X*, or independent) variable and the outcome (*Y*, or dependent) variable, designated as the holistic score of the performance. The criteria of our research, as shown in Figure 1, were labeled ePortfolio design, clear style, accurate usage, task knowledge, relevant content, adapted tone, graphic cohesion, and citation.

After creating the criteria to be assessed, assignments (or tasks, as they are called in the constructed response literature) should be added to the curricula that will allow students to learn—and later to demonstrate—the desired behaviors under performance conditions. The next step is to decide on a method for collecting samples; we chose ePortfolios that could be shown online. Because it is not logistically possible to read and score all student submissions in a single day, we created a method of selecting a number large enough to achieve a 95% confidence level so that the range of scores in the sample would be representative of the larger student population enrolled in our courses. The formula, admittedly complex, uses the number of students enrolled that semester, the mean (or average) score from the previous semester, and the standard error (the researcher's expectation of how much the sample means might vary from the collective mean) to calculate the number of ePortfolios we have to read. We then selected ePortfolios using a list of random numbers easily generated from an internet site such as random.org (Haadr, 2010).

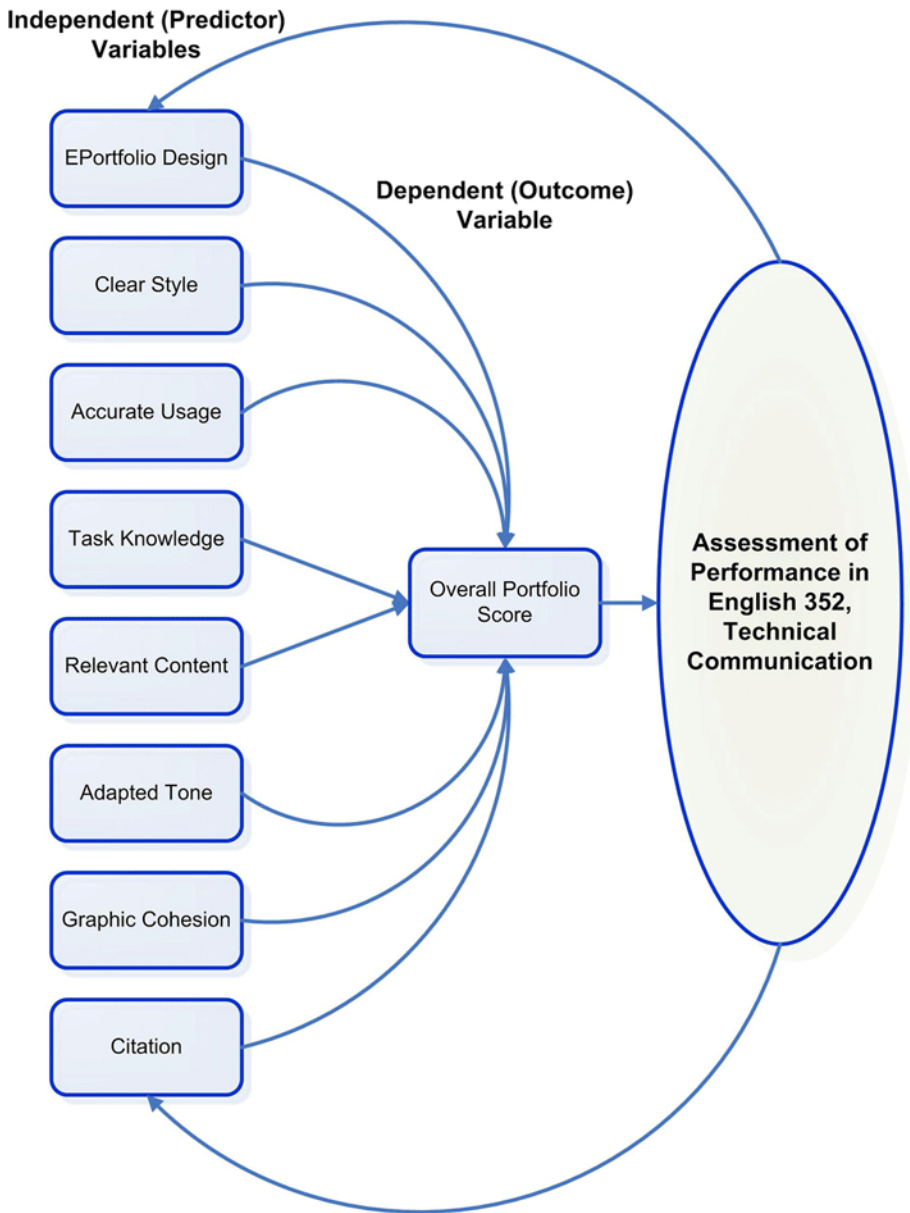


Figure 1. The NJIT model for undergraduate technical writing assessment

As part of our adherence to a unified theory of validation (Messick, 1989), interrater reliability is a key aspect of our work. We have two instructors score every variable separately on a scale from one (the lowest) to six (the highest score); if scores are discrepant (that is, nonadjacent, such as a 6 and a 4) the variable is adjudicated by a third rater. We then examine the raters' scores using a common tool, a consensus estimate that shows the percent of rater agreement documented in Table 1.

Table 1. Interrater agreement analysis, spring 2009 (n=56)

ePortfolios Needing No Adjudication, Spring 2009 (n=56)	Interrater agreement	Percent of agreement
No Adjudication on All Variables	19	34%
No Adjudication on ePortfolio (Web Page)	46	82%
No Adjudication on Clear Style	45	80%
No Adjudication on Accurate Usage	45	80%
No Adjudication on Task Knowledge (Understanding Assignments)	49	88%
No Adjudication on Relevant Content	47	84%
No Adjudication on Adapted Tone	47	84%
No Adjudication on Graphic Cohesion	49	88%
No Adjudication on Citation	32	57%
No Adjudication on Overall Score	49	88%

Pearson's *r*, a consistency estimate providing correlations as evidence of reliability, is also used to compare the two columns of nonadjudicated (original) and adjudicated (resolved discrepant) scores. As shown in Table 2, Pearson's *r* is used to show the degree to which the scores of raters are related. The results range from +1 (a perfect relationship) to -1 (an inverse relationship). We then note which relations are significant, expressed in probabilities (*p*): **p* <.05 identifies a 95% confidence interval (the range of scores likely to include the mean, or average, score), and ***p* <.01 designates a 99% confidence interval. Probability estimates signify that the results are not an artifact of chance. The use of a weighted kappa (a measure of interrater consistency) adds additional validation to our efforts. We report both nonadjudicated and adjudicated scores because it is important not to mask the initial reaction of raters to the observed student ePortfolios. In outcomes assessment, transparency must be always and everywhere apparent.

Table 2. Reliability analysis: Pearson r and weighted kappa, spring 2009

Indicators	Non-Adj. Pearson r (2-tailed)	Adj. Pearson r (2-tailed)	Non-Adj. Weighted Kappa	Adj. Weighted Kappa
1. ePortfolio	.14	.53**	.035	.299**
2. Clear Style	.32*	.64**	.256**	.441**
3. Accurate Usage	.199	.586**	.089	.348**
4. Task Knowledge	.294*	.566**	.142	.339**
5. Relevant Content	.3*	.639**	.181*	.411**
6. Adapted Tone	.27*	.66**	.193*	.428**
7. Graphic Cohesion	.364**	.618**	.180*	.333**
8. Citation	.2	.831**	.129	.672**
9. Overall Score	.251	.581**	.127	.348**

* $p < .05$ ** $p < .01$

We used the Pearson's correlation to gain a sense of the strength of the relationships in the variable model as well. Using the same function, we produce numbers that indicated how well the elements in the model were correlated. As shown in Table 3, all the variables are significantly related to each other at a 99% confidence level.

Table 3. Correlation analysis of the NJIT model, fall 2004 to spring 2009 (n=636)

	Clear Style	Accurate Usage	Task Knowledge	Relevant Content	Adapted Tone	Graphic Cohesion	Overall Score
Clear Style	-	.713**	.623**	.677**	.632**	.574**	.7**
Accurate Usage		-	.55**	.584**	.588**	.532**	.626**
Task Knowledge			-	.789**	.691**	.62**	.794**
Relevant Content				-	.731**	.669**	.796**
Adapted Tone					-	.633**	.734**
Graphic Cohesion						-	.707**
Overall Score							-

* $p < .05$ ** $p < .01$

Another important test to judge the integrity of the model is a linear regression analysis, a tool that allows us to compare the connections between

the eight predictor (*X*, or independent) variables and the outcome (*Y*, or dependent) variable shown in Figure 1. As Table 4 shows, the model is coherent indeed, accounting in the spring of 2009 for 68% of the variance within the model—the degree to which the predictor variables are related to the outcome variable at a 99% confidence interval.

Table 4. Regression analysis of the NJIT model, fall 2004 through spring 2009

	R^2	$F(df)$	p
Fall 2004 (n=61)	.681	19.21(6, 60)	.01
Spring 2005 (n=50)	.756	22.18(6, 49)	.01
Fall 2005 (n=124)	.853	112.74(6, 123)	.01
Spring 2006 ¹ (n=140)	.795	73 (7, 139)	.01
Fall 2006 ² (n=92)	.729	31.57(8, 91)	.01
Spring 2007 (n=88)	.836	50.22(8, 87)	.01
Spring 2008 (n=25)	.915	21.48(8, 24)	.01
Spring 2009 (n=56)	.68	12.5(8,55)	.01

¹ Citation variable added to the model

² ePortfolio design added to the model

Because the ePortfolios were read reliably after adjudication and the model was cohesive, we were then able to report our means (average scores), standard deviations (a measure of score dispersion from the mean), and range (a measure revealing use of the entire scoring scale). Our descriptive statistics are presented in Appendix 2 as we follow the reporting guidelines of the American Psychological Association (2010, pp. 21–59).

Among our inferential statistics (used to draw relational evidence), an independent sample *t*-test was employed to give us a sense if, from year to year, our scores were rising, or falling, at statistically significant levels. We will turn to the score difference later when we analyze Table 5. Among our final tests, a correlation analysis allowed us to see if our ePortfolio scores were related to course grades and cumulative grade point averages. The answer, shown in Appendix 3, will also be discussed later.

The task of learning measurement concepts and statistical terminology is complicated, but the language and the processes can be mastered, bit by bit. The process of mounting a validation argument, as we will demonstrate throughout the rest of the article, is different from a way of thinking writers often use: educational measurement is not only analytic, but makes use of mental functions that cannot easily be described with the Euclidean

geometry learned in school. It is best to understand, at the beginning, that all statistics cannot be mastered in one concerted effort. Working piece by piece, the system eventually comes together. Although technical writing teachers will not become psychometricians, we can bring something to the educational measurement that has not been brought by others: an understanding of creativity formed in the service of technical communication.

Designing the Variable Model: Construct Validation

Our work began in the fall of 2004 as we sought to define our landscape with a single question: What is it that we wanted to teach? In previous articles, we described the process of using an online Delphi, a formal email exchange between faculty, to describe, and then agree on, the aspects of technical writing we wanted to teach (Johnson, 2006a, 2006b). The results were originally under five headings: writing and editing, substance and content, audience awareness, document design, and textual attribution. Over time, we modified the variables and designed the present set, represented in Figure 1. We omitted some independent variables that were slightly repetitive to make the reading session more manageable, thus decreasing the number of predictor variables while retaining the outcome variable of the overall ePortfolio score. With interaction from our resource librarians, we revised the criteria for textual attribution to express our construct of information literacy in a single variable that reflected our defined goals of textual attribution. Because information literacy was rapidly becoming an important part of the university curriculum and had been examined in other undergraduate ePortfolios, we wished to introduce this important instructional element into our technical writing course. We will return to this important new variable of technical writing later.

The model represented in Figure 1, then, affords our assessment a sense of defined constructs, or traits, that we associate with proficiency in technical writing. In educational measurement terms, we thus take Figure 1 to be our construct of technical writing. Again the *Standards* (AERA, APA, & NCME, 1999) is conceptually helpful with the definition of a construct as “a theoretical variable inferred from multiple types of evidence” (p. 174), a model that can be validated by the very processes we describe. Figure 1 depicts both the construct of technical writing—the relationship of the eight predictor variables to the outcome variable, expressed in the overall ePortfolio score—and the process of validation. As Michael Kane (2006) defined this process, we are thus able to develop evidence to support the proposed use of the

assessment to create curricular goals and to examine the plausibility of our claims (p. 17). To develop evidence, the form of assessment we created is more analytic than holistic. We needed more than a single holistic score if we were to truly understand, teach, and improve the components of technical writing. Although the overall ePortfolio score was holistically scored according to classical methods (Godshalk, Coffman, & Swineford, 1966), the predictor variables were designed to be analytically scored (Purves, Gorman, & Takala, 1988). The model finds its origin in our earlier assessment research (Elliot, Briller, & Joshi, 2007).

We began to embrace and score ePortfolios because we believed that writing for audiences beyond the classroom was central to the technical writing experience. In addition, we embraced ePortfolios as a way to gain a more robust sense of the ways each instructor captures the variable model within each course and how each student responds to it. We can see student work in multiple drafts, including the teacher's comments, the visual elements, and the design of the ePortfolio itself. We see an entire semester's worth of effort, how the students developed, and sometimes, how they felt. Technically, the move to ePortfolios—the only way to truly capture such transactions efficiently—required that we include basic HTML instruction in the early years of the project for students to post ePortfolios housed on the university servers with links to their work for the semester. It is important that the ePortfolio is open to the Web rather than in a closed database because it gives the student a stake in the assessment process: Their ePortfolios are visible to other students, professors, their families, and their friends. When the assessment is over, students can revise the website for personal or professional reasons. With Jason Swarts and Loel Kim (2009), we hold that the possibilities for rhetorical action are “being reshaped by information and communication technologies, by near ubiquitous connectivity, and by more robust networking capabilities that have facilitated the creation of an expansive information stance that frequently meshes with the material places in which we live,” what they term *hybrid spaces*, which is not only a commodity, but also “a frame on the world around us” (p. 212). A seemingly technical consideration—teaching traditional HTML—thus becomes a part of construct validation process within our model, itself framed by and framing the world in which students live.

Within this environment, we further strengthened the construct validity of the model—our theory of the variables of technical writing and the processes by which we would support its use in curriculum design—by creating assignments (constructed response tasks) to address the variables and, during the assessment, sharing our ideas with each other, a process

leading to further modifications and new assignments. This set of common elements ensured that the class would work through five separate discourse tasks aimed to enhance their instructional, persuasive, visual, oral, and online communicative abilities. These additional efforts at construct validity increased the meaning of the assessment and demystified the contents of the course for students. After we held our first successful analytic online assessment of technical writing in the fall of 2004, we sequenced our assessment with other similar departmental programs and repeated it every semester until the spring of 2007; from that point forward we have held the assessment reading once a year in the spring.

Name	Type	Width	Decim	Label	Values	Missing	Columns	Align	Measure
1 Name	String	12	0	Student Name	None	None	10	Left	Nominal
2 Var1	Numeric	2	0	Clear Style - now Var2 on SSS	None	None	4	Center	Scale
3 Var2	Numeric	2	0	Accurate Usage - now Var 3 on SSS	None	None	4	Center	Scale
4 Var3	Numeric	2	0	Understanding Assignment - now Var 4	None	None	4	Center	Scale
5 Var4	Numeric	2	0	Relevant Content - now Var 5 on SSS	None	None	4	Center	Scale
6 Var5	Numeric	2	0	Rhetorical Response - gone on SSS	None	None	4	Center	Scale
7 Var6	Numeric	2	0	Adapt Content - gone on SSS	None	None	4	Center	Scale
8 Var7	Numeric	2	0	Adapt Tone - now Var 6 on SSS	None	None	4	Center	Scale
9 Var8	Numeric	2	0	Graphic Cohesion - now Var 7 on SSS	None	None	4	Center	Scale
10 Var9	Numeric	2	0	Parallel Structure - gone on SSS	None	None	4	Center	Scale
11 Var10	Numeric	2	0	Basic Graphics - gone on SSS	None	None	5	Center	Scale
12 Var11	Numeric	2	0	Citation - now Var 8 on SSS	None	None	5	Center	Scale
13 Var12	Numeric	2	0	Research - gone on SSS	None	None	5	Center	Scale
14 Var13	Numeric	2	0	Overall Portfolio Score - now Var 9 on S	None	None	5	Center	Scale
15 Var14	Numeric	2	0	Web Page - new Var1 on SSS	None	None	5	Center	Scale
16 Cl	Numeric	1	0	Classroom	{1, Traditional Classroom}...	None	4	Center	Scale
17 TS	Numeric	1	0	Transfer Status	{1, First-time, full-time freshman}...	None	4	Center	Scale
18 Semes	Numeric	1	0	Semester	{1, fall2004}...	None	4	Center	Scale
19 Grade	Numeric	8	2	Course Grade	None	None	5	Center	Scale
20 GPA	Numeric	8	2	Overall GPA	None	None	5	Center	Scale
21 SN	String	10	0	Student ID#	None	None	8	Left	Nominal
22 Major	String	10	0	College, Year, Major	None	None	8	Left	Nominal
23 Sect	String	8	0	Section	None	None	4	Left	Nominal
24 DL	Numeric	1	0	Distance Learning	{1, Face to Face}...	None	5	Right	Scale

Figure 2. Original codebook showing variable view

In addition, following the ECD orientation, we developed our codebook and database as we were discussing the variable model itself. Although such work is traditionally associated with data analysis, a later step in the process, we selected the SPSS program early because of its codebook properties and data analysis qualities. Figure 2 shows our original codebook in the SPSS variable view. That codebook, in relation to Figure 1, shows the history of our assessment project—constructs we tried and later abandoned (such as rhetorical response and parallel structure), those included from the beginning (such as style and usage), and those added in the journey (such as citation and webpage design). Ever capacious, SPSS allows the user to switch back and forth between Variable View and Data View. In Variable View, researchers can see and define the qualitative contents of each column. In Data View, researchers see the quantitative contents.

We kept separate SPSS files for each semester we held the assessment, including nonadjudicated scores and adjudicated scores. After entering the data, we transferred each semester's data to the total database, where we added more data, such as course grade and semester cumulative grade point average (GPA)—standard elements of criterion validation (the process of relating the phenomena under analysis to other performance measures).

The history of our research project is captured in Figure 2. At the beginning, one instructor asked that we analyze the difference in ePortfolio outcomes between traditional and computer classrooms. (We hypothesized that the computer classroom scores would be higher, but they were not). Thus, there is an entry "1" for the traditional classroom and an entry "2" for the PC lab. The next item on the list is the transfer status of students, an ongoing concern in which the relationship between instructional origin and outcomes is examined. Our colleagues asked if upper division technical writing instructors found that students matriculating from community colleges had skills similar to full-time, first-time first-year students. We confirmed that no significant difference existed, thereby replicating the results of a study conducted 13 years earlier (Elliot, Kilduff, & Lynch, 1994). The other rows are used to collect data on the course grade and cumulative GPA. Gathering such information allows us to compare many different elements about the students, the course, and university environment in which they are situated.

Figures 3 and 4 show what the database looks like at the present time. Because we have maintained this assessment for eight semesters, we have a total of 636 students in the database. After the ePortfolios are scored, the nonadjudicated and adjudicated scores are entered in a different database. The rest of the data—the grades and GPA—is gathered from the university's student information database. The result is a database that can be queried for a variety of information on student performance: It can be queried to assess the components of the course itself and also to address questions that are outside the purview of the course, such as the classroom and transfer issues. It is possible in SPSS, of course, to add variables for other data, such as available SAT® scores, as further studies are undertaken. In sum: Figures 1–4 serve as symbolic representation of our efforts to design a model and to examine its efficacy. How, then, do we operationalize that model into a scoring methodology?

Undergraduate Technical Writing Assessment: A Model

	Name	Type	Width	Deci	Label	Values	Missing	Columns	Align	Measure
1	Name	String	12	0	Student Name	None	None	10	Left	Nominal
2	Var1	Numeric	2	0	EPortfolio Design	None	None	4	Center	Scale
3	Var2	Numeric	2	0	Clear Style	None	None	4	Center	Scale
4	Var3	Numeric	2	0	Accurate Usage	None	None	4	Center	Scale
5	Var4	Numeric	2	0	Task Knowledge	None	None	4	Center	Scale
6	Var5	Numeric	2	0	Relevant Content	None	None	4	Center	Scale
7	Var6	Numeric	2	0	Adapted Tone	None	None	4	Center	Scale
8	Var7	Numeric	2	0	Graphic Cohesion	None	None	4	Center	Scale
9	Var8	Numeric	2	0	Citation	None	None	4	Center	Scale
10	Var9	Numeric	2	0	Overall Portfolio Score	None	None	4	Center	Scale
11	Grade	Numeric	8	2	Course Grade	None	None	5	Center	Scale
12	GPA	Numeric	8	2	Overall GPA	None	None	5	Center	Scale
13	Major	String	10	0	College, Year, Major	None	None	8	Left	Nominal
14	Sect	String	8	0	Section	None	None	4	Left	Nominal

Figure 3. Codebook reflecting current variables

	Name	Var1	Var2	Var3	Var4	Var5	Var6	Var7	Var8	Var9	Grade	GPA	Major	Sect
1	Alvaros	5	6	7	7	7	7	7	7	5	2.50	2.75	NCE JR	001
2	Angolas	9	9	11	11	11	9	10	10	10	4.00	3.50	NCE JR	001
3	Atalah	8	9	9	9	8	9	9	5	6	3.50	2.41	NCE SR	005
4	Aadoyas	6	4	8	7	8	8	7	9	8	3.00	2.96	NCE JR	001
5	Boldusa	9	9	9	9	9	8	8	9	9	4.00	3.79	NCE FR	107
6	Curzias	8	8	8	8	8	8	8	8	8	3.00	2.93	CCS SO	107
7	Cabalas	7	7	9	9	9	10	10	9	9	3.50	2.92	NCE JR	107
8	Cisnowal	8	8	7	7	4	7	7	7	7	3.50	2.04	NCE JR	103
9	Chmielars	9	8	9	9	9	9	9	9	9	2.00	2.31	SOM JR	103
10	Dhajnacki	10	7	9	8	8	9	9	9	9	4.00	3.36	CCS SR	005
11	Desai, Dh	7	7	8	9	9	9	9	11	10	3.50	3.56	NCE JR	001
12	Desai, Do	9	8	7	7	9	6	5	5	5	3.50	3.03	NCE JR	S101
13	Dorcacki	4	4	8	8	8	8	7	7	7	3.50	3.33	NCE SO	001
14	Douglass	9	9	5	6	9	6	6	7	9	3.50	2.78	NCE SR	103

Figure 4. Data view reflecting current variables

Designing the Assessment Methodology: Content Validation

Once the ePortfolio is created, the student submits a link. The random sampling described below is taken from a list of all students. That subset sampling is then made into an Microsoft® WORD document and/or an HTML page with links to the selected ePortfolios. We gather in a room, calibrate ourselves by scoring three sample ePortfolios (with superior, medium, or poor scores) and discuss our initial scoring reactions for about an hour. Using the rubric shown in Figure 5, each rater scores the sample ePortfolios individually, keeping notes on why each decision was made. We then tabulate the group results on a whiteboard.

The raters, especially the outliers, explain their reasoning. This discussion brings the group into a closer consensus. It is a normative discussion in which we align the ePortfolios from the semester with the criteria—the levels of scores from 1 (very strongly disagree) to 6 (very strongly agree)—that exist across semesters. After discussion, we distribute the rubric and the cards shown in Figure 6, and each instructor independently scores the ePortfolios for the eight predictor variables and the overall holistic score. The assessment leader collects first and second readings to check for discrepancies, highlights discrepant criteria on a third rubric, and distributes it, if necessary, to a third rater.

English 352 (Technical Communication) Portfolio Assessment – Spring 2009						
Student's Name		_____				
Reader's Name		_____				
EPortfolio Design						
1. The web page is clear and navigable.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Clear Style						
2. The contents of this portfolio exhibit clear style (readable, concise, cohesive).						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Accurate Usage						
3. The contents of this portfolio demonstrate accurate language usage (grammar, punctuation, spelling).						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Task Knowledge						
4. The contents of this portfolio exhibit clear understanding of assignments.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Relevant Content						
5. The contents of this portfolio demonstrate accurate, thorough, relevant, and coherent content and ideas.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Adapted Tone						
6. The contents of this portfolio demonstrate that the author can adapt tone for audience.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Graphic Cohesion						
7. The contents of this portfolio demonstrate cohesion by graphic means (headings, white space) in documents.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Citation						
8. This portfolio includes sources that are documented so that the original source can easily be found.						
Very Strongly Agree	Strongly Agree	Agree	Disagree	Strongly Disagree	Very Strongly Disagree	
Overall Portfolio Score:						
9. The materials in this portfolio demonstrate class work that is:						
Superior	Very Good	Average	Below Average	Near Failure	At Failure	

Figure 5. Score sheet for the NJIT model

Designing the Sampling Plan: Economic Constraint

We have developed a specific formula to achieve the lowest possible number of ePortfolios to score to represent the course (Johnson, 2006a, 2006b). In the spring of 2009, 216 students enrolled in our technical writing course. Raters that semester included two adjuncts, one instructor, and two faculty members. In addition, we were fortunate to have two representatives from our information literacy initiative—seven raters in all. Although neither the words *efficiency* nor *economy* appear in the *Standards* (AERA, APA, & NCME, 1999), it is clear that resource allocation is closely tied to construct underrepresentation, “the extent to which a test fails to capture important aspects of the construct that test is intended to measure” (p. 174). If an assessment of writing is captured by a multiple choice test, that item type would be said to underrepresent the construct of writing; nevertheless, the test would meet the goal of efficiency. How do we then capture the assessment of technical writing by an ePortfolio and still meet the goal of efficiency with only seven raters on hand, with only a day to volunteer? To address efficiency, we have become adept at sampling plan design. That is, we have become determined to assess the smallest number of students possible with the greatest possible confidence in our results. We describe the formula we developed below.

We begin with a standard formula (Kerlinger & Lee, 1999, pp. 297–298) modified to address our sampling plan design:

$$n = \frac{Z^2 \sigma^2}{d^2} \quad (1)$$

Where:

$Z^2 = 1.96$, the Z -value associated with a 95% confidence interval (for a .10 confidence level, the Z score = 1.645; for a .01 confidence level, the Z score = 2.575)

σ^2 = the standard deviation of the population

d^2 = the specified deviation defined as the deviation that we can tolerate between the sample mean and the true mean.

We then apply the correction for a finite sample:

$$n' = \frac{n}{1 + n/N} \quad (2)$$

Where:

n' = estimated sample size

n = sample size estimated using formula 1 described previously

N = sample size of the population

Here is the step-by-step calculation we make.

Step 1. Calculate the specified deviation

We begin with a conceptualization of the specified deviation—the deviation that we can tolerate between the sample mean and the true mean. In our program, we have defined the specified deviation as the mean score of the overall ePortfolio score from the previous semester's reading (the outcome variable of our model) plus or minus the Z-score (the standard score corresponding to the specified probability for risk) multiplied by standard error of the overall ePortfolio score. Calculations based on the previous semester's readings ensure that we use the information we gained to make our next set of decisions; the Z-score allows us to address the standard 95% confidence interval for decision making, although we have used lower confidence intervals when we have been unable to read all the ePortfolios in other NJIT programs (Elliot, Briller, & Johsi, 2007, p. 7). The standard error of the overall ePortfolio score used in this calculation is easily obtained from the descriptive statistics in SPSS.

Hence,

8.19 (mean score of the overall ePortfolio score from the previous semester's reading)

± 1.96 (the standard score corresponding to the specified probability for risk)

$\times 1.65$ (the standard error of the overall ePortfolio mean score)

Now, $1.96 \times .165 = .32$. Thus, .32 is the specified deviation. For the upper range of scores, we can be 95% confident that the scores will be $8.19 + .32 = 8.51$; for the lower range, we can be 95% confident that the scores will be $8.19 - .32 = 7.87$. In sum, the specified deviation allows us to be 95% certain that the range of scores from 8.51 to 7.87 will include an individual student's true mean score.

Step 2. Calculate the sample size

Now that we are certain of the specified deviation, we use equation 1 in Step 1.

Hence,

$$n = 1.96^2 \times 1.65^2 / .355^2$$

$$n = 3.84 \times 2.72 / .126$$

$$n = 10.44 / .126$$

$$n = 82.89$$

Therefore, to achieve a 95% confidence interval, we would need to read 83 ePortfolios. However, equation 1 is designed for an infinite sample—a sample in which the total number of students in the sample is unknown. Formula 2 described in Step 3 allows us to make the correction for a finite sample—in the spring of 2009, the 216 students enrolled in all sections of the course.

Step 3. Make the correction for a finite sample

We now use equation 2.

Hence,

$$n' = 83 / 1 + (83 / 216)$$

$$n' = 83 / 1 + .38$$

$$n' = 83 / 1.38$$

$$n = 60$$

Therefore, our target is to take a random sample of 60 ePortfolios. To choose the random sampling, we obtain a list of all students taking the course from the Student Information System (SIS) database. We put that list in an alphabetized Microsoft® WORD table with columns for student identification number, student name, and website URL. Using a list of random numbers generated from a table of random numbers generated on the internet, we select students sequentially according to the random numbers until we have the requisite number. We then make a separate list, either in WORD or in HTML, with the URLs for student websites so that the raters can easily access them during the reading. With attrition, we scored 56 ePortfolios in spring of 2009, as Appendix 2 shows. The variations in the number of student ePortfolios assessed each semester were due to the evolution of our sampling methodology and the contingencies of rater participation.

Such sampling plan calculations rest at the heart of outcomes assessment. If the idea is to study and refine the curriculum, there is no need that each student be examined; rather, a well defined sampling plan with random selection allows a confidence level to be established that will allow administrators and

instructors to allocate resources efficiently under conditions of scarcity. Each semester, seven instructors can handle the designated sampling plan in one long morning, and the results we present enable us to have time to manage the assessment into our busy instructional and research lives. Rather than a burden—it would take two exhausting days to review the student ePortfolios from each section of the course—the end-of-term assessment episodes become yet another community-building task for the instructional group.

Designing the Data Analysis: Validation Argument

After the scores from the ePortfolios are entered and checked, the first test to run is to establish the interrater agreement and the interrater reliability of the scores (Stemler, 2004). Although we view reliability as integral to a unified theory of validity (Messick, 1989), we also believe that establishing reliability is a precondition of validity. If the raters cannot agree on what has been observed, there can be no pursuit of additional analyses.

Interrater Agreement Analysis, Spring 2009

Interrater agreement is based on the extent to which the raters agree on an ePortfolio score for one of the predictor variables or the outcome variable. The most straightforward way to judge the amount of interrater agreement is to count how many discrepancies had to be resolved. With eight variables and the overall ePortfolio score all read concurrently, there are usually discrepancies—this is how analytic assessment differs from holistic assessment—because more judgmental variety is recorded. As Table 1 from the spring of 2009 illustrates, the percent of agreement—the consensus estimate—for each predictor variable is quite high; nevertheless, very few ePortfolios require no adjudication whatsoever. When a new variable is added, such as citation (introduced in the spring of 2006), the percent of agreement is often low.

Reliability Analysis, Spring 2009

Constructs such as those we use as representing technical writing cannot be entirely captured due to their complexity; raters do not agree on what they are viewing with the same precision they would if observing presence or absence of an infiltrate on a chest radiograph (Viera & Garnett, 2005). Thus, we used two tests to analyze the probability of the precision of raters. As is the case of the economy, quantum mechanics, and archaeology, assessment data about writing can be expressed in estimates rather than certainties.

We used two tests with the results of both for spring 2009—the consistency estimate—presented in Table 2. The first test, Pearson's correlation coefficient (Pearson's r), shows meaningful association in values between

1.0 (a perfect positive relationship), 0 (no relationship) and -1.0 (a negative relationship).³ As shown in Figure 7, to run these measures of linear relationships in SPSS we selected the column of nonadjudicated scores of first raters and the column of the nonadjudicated scores of second raters. This correlation produced the nonadjudicated scores in Table 2. We then adjudicated any discrepant scores by taking the third score, which most closely approximated the first or second score. So, for example, a first rater awarding an overall ePortfolio score of 6 and a second rater awarding a score of 4 would be discrepant, resolved by a third rater who might award a score of 4, thus confirming a final score of 8. If that third rater awarded a score of 5, then our “tie goes to the (student) runner” rule applies, and a total score of 11 is awarded.

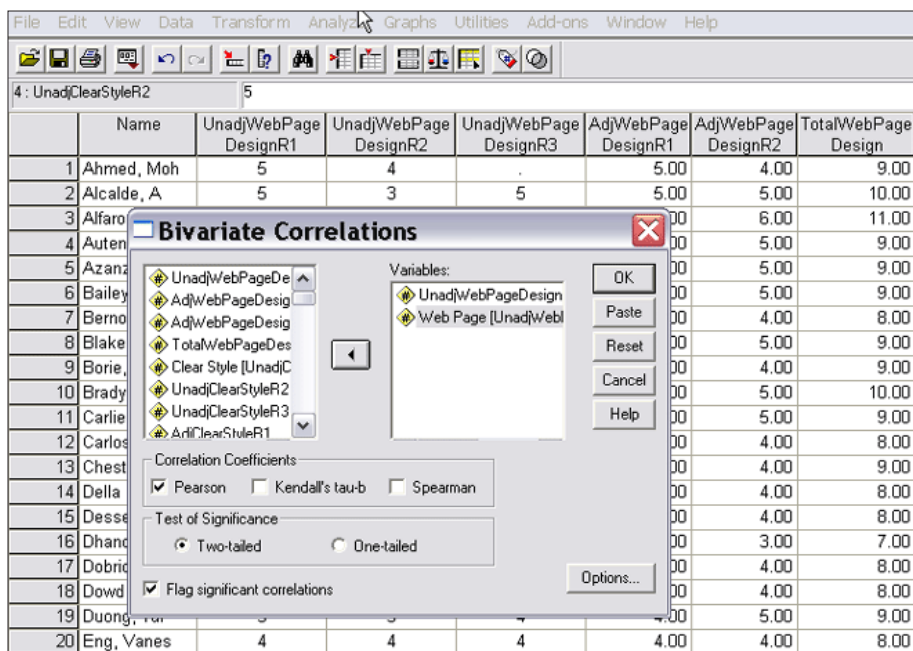


Figure 7. Dialogue box used in SPSS to calculate Pearson's r for nonadjudicated scores

As can be seen in Table 2, the nonadjudicated scores for ePortfolio design, accurate usage, citation, and the overall score did not reach the 95% confidence interval on the first reading, but did meet and exceed that level after adjudication, reaching the higher .01 confidence interval. The low correlation in the nonadjudicated scores is likely due to the number of variables that must be judged and rater inattention as the reading period progresses. This type of

³ To run the Pearson *r* in SPSS, select Analyze/Correlate/Bivariate. Select the desired variables and click OK. A video demonstration of this process can be found at the NJIT site for iTunesU. See <<http://deimos3.apple.com/WebObjects/Core.woa/Browse/njit.edu.1302671158.01302671168.1303126577?i=1408077901>>.

analytic (multivariable) assessment is cognitively difficult for raters, especially at the end of a busy semester after grading student papers. Although Edward Haertel (2006) pointed out that when adjudication is used, the assumptions for many statistical models are violated (p. 120), it is also important to point out that adjudication is a necessity if shareholders are to be assured that discrepancies were resolved by a rater, rather than buried by an average.

Treating the data categorically, we also use Jacob Cohen's (1968) weighted kappa (k), as shown in Table 2.⁴ Again, we see that ePortfolio design, accurate usage, citation, and the overall score did not reach the 95% confidence interval; task knowledge also failed to meet the confidence interval. Under adjudication, the agreement substantially improved with each variable reaching the .01 significance level. According to strength of agreement levels established by J. Richard Landis and Gary Koch (1977, p. 165), the levels of agreement are fair (above .2) to substantial (above .61). If we return to the health analogy offered by Anthony Viera and Joanne Garnett (2005), we might compare our observations on these complex variables as similar to an observation on tactile fremitus, a rare observation of the chest wall vibrating during speech. As Viera and Garnett reminded us, "For rare findings, very low values of kappa may not necessarily reflect low rates of overall agreement" (p. 362). An observation of a rare occurrence in any field will not be recognized, and we need to take care to understand fully the complexities involved in any observation before setting a standard.

Correlation Matrix (Associative Analysis)

Table 3 presents the correlations among the permanent variables that endured from the fall of 2004 to the spring of 2009, a variable set tested over 636 students. Each correlation is significant, at the .01 level, and the correlations range from .55 to .796. The relationship among the six permanent variables (clear style, accurate usage, task knowledge, relevant content, adapted tone, and graphic cohesion) and the overall ePortfolio is especially strong, with five of the six variables above .7. Clearly, the relationships among the variables are solid, with very high correlations of the variables with the overall ePortfolio score.

Regression Analysis (Predictive Analysis)

Another important aspect of validation is the regression analysis. Because the model we have created is relational—that is, a predictor-outcome variable model in which every variable is related to the overall ePortfolio score—it is

⁴ The weighted kappa statistic cannot be run in SPSS. However, our colleague, Kamal Joshi, has written a statistical analysis system (SAS) program for use with that software, and the program may be obtained by contacting the authors.

important to understand the extent to which the individual variables predict the overall, holistic, ePortfolio score.⁵ Figure 8 provides a visual display of the method to perform a regression analysis in SPSS with the six permanent predictor variables used as the independent variables and the overall ePortfolio score used as the outcome variable. Table 4 demonstrates the strength of the model.

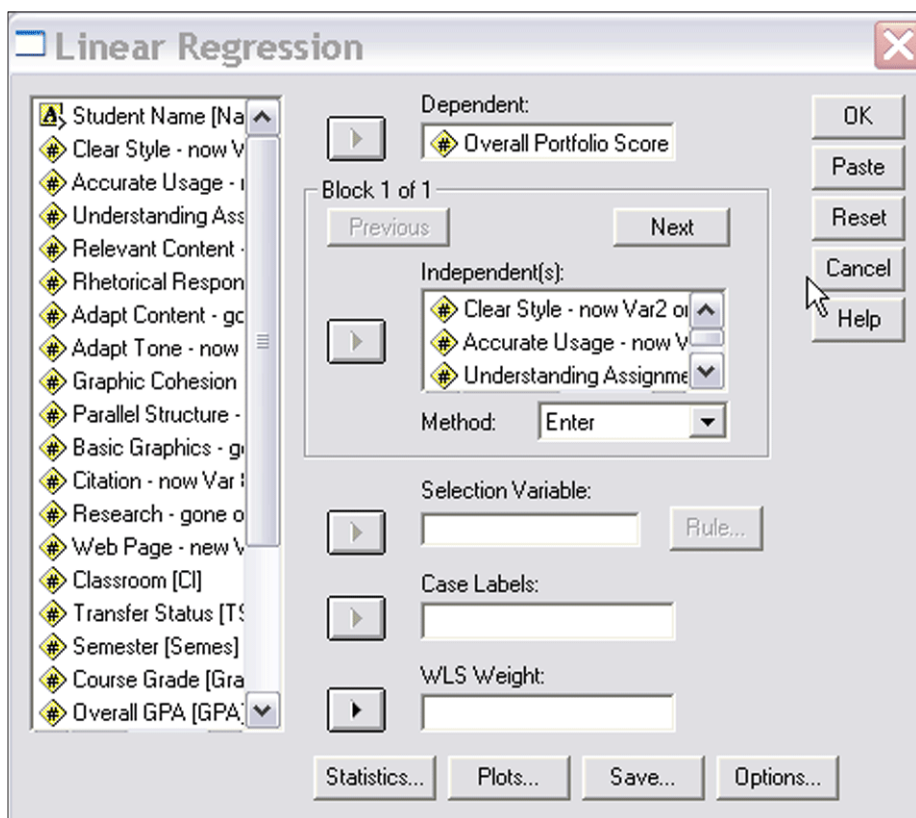


Figure 8. Dialogue box used in SPSS to calculate a linear regression

From the very first reading, our model was strong. At no time has the model fallen below an R^2 of .68. That is, 68% of the variability of the model is accounted by the relationship of the six permanent predictor variables to the outcome variable of the overall ePortfolio score. At its highest, in the spring of 2008, 91% of the variability of the model is accounted for by the predictor-outcome model. Such model strength for the undergraduate technical writing program is comparable to other regression studies

⁵ To run this test in SPSS, Analyze/Regression/Linear, select the dependent variable and the independent variables and click OK. A video demonstration of this process can be found at the NJIT site for iTunesU. See <<http://deimos3.apple.com/WebObjects/Core.woa/Browse/njit.edu.1302671158.01302671168.1303126584?i=2070933018>>.

performed on our graduate program model (Coppola & Elliot, 2007, p. 464; Coppola & Elliot, 2010, p. 150).

Hence, we may conclude that our construct of technical writing has been well designed and articulated. Because the construct has emerged in a performance-based environment that reviewers can understand and judge, the ePortfolios have been read reliably. Each variable is related in a statistically significant fashion, and the model is internally consistent. Our validation processes concerning the model have thus been well articulated. How can we investigate the model to keep it from being solipsistic in nature? That is, what gains can be demonstrated as a result of our program assessment effort, and how do these gains relate to other measures of student performance?

Using Assessment Results: Consequential Validation

Robert L. Brennan (2006) observed that “perhaps the most contentious topic in validity is the role of consequences” (p. 8). How may we come to terms with the impact of our program assessment model? To judge the impact of our model, in this section of the article we describe performance across time and study the effects of our efforts to build community through attention to outcomes.

Differences in Mean Scores over Time

Our main measure of success in achieving goals is that on a scale of 2 to 12, a score of 7 or above is acceptable, an indication of earned proficiency.⁶ As shown in Appendix 2, we achieved those goals in the six permanent predictor variables and the overall ePortfolio score. Creating a model to measure learning outcomes and successfully meeting the minimum score means that, in the most straightforward way, we are teaching what we want to teach. We have imagined a concept of technical writing that we can deliver to students, encourage their responses, and then measure their abilities.

Yet is proficiency sufficient in the increasing environment of global competitiveness that students must face? Once the concept is in hand on the part of the instructional staff, do the scores change over the semesters? Although numerical differences are immediately visually evident, as seen in the Appendix 2, the differences may not be statistically significant. Here we apply an independent

⁶ To find the means for each semester, use the semester’s database and select Analyze/ Descriptive Statistics/ Descriptives. In the dialogue box that appears, select Options and then select Range to get a report on the range as well. Also select S.E. Mean for the sampling plan calculation. Click OK. A video demonstration of this process can be found at the NJIT site for iTunesU. See <<http://deimos3.apple.com/WebObjects/Core.woa/Browse/njit.edu.1302671158.01302671168.1303077417?i=1664416832>>.

sample *t*-test to measure whether differences are statistically significant.⁷ If the *t*-test indicates that the differences across semesters are statistically significant, and if a researcher can demonstrate that the student population has not shifted, then she can seriously marshal evidence that the curriculum and its instructors are making a difference in the lives of students. Because the NJIT student population has remained consistent in terms of SAT® performance, we have found that undergraduate population, presently resting at 5,248, is consistent across the period of this presented assessment with an SAT® Critical Reading mean score of 538 and an SAT® Mathematics score of 604. Although a new strategic plan aims to raise both the enrollment and the SAT® scores—and we hope to capture those efforts in our program assessment efforts—student gains in technical writing since 2004 may be attributed to the curriculum we have designed and assessed.

As Table 5 shows, five of the six predictor variables have statistically significant gains made since the beginning of our program in 2004 as compared to our most recent assessment.

Table 5. Comparison of common variables, fall 2004 and spring 2009

	t(df = 115)	p
Clear Style	-2.76	.01
Accurate Usage	-2.34	.05
Task Knowledge	-1.99	.05
Relevant Content	-1.92	.05
Adapted Tone	-.988	.3
Graphic Cohesion	2.19	.05
Overall ePortfolio Score	-2.86	.01

The scores on the following variables have been raised: clear style (fall 2004: $M = 7.77$, $SD = 1.28$; spring 2009: $M = 8.46$, $SD = 1.44$; $t = -2.76$, $p < .01$); accurate usage (fall 2004: $M = 7.54$, $SD = 1.4$; spring 2009: $M = 8.18$, $SD = 1.54$; $t = -2.34$, $p < .05$); task knowledge (fall 2004: $M = 8$, $SD = 1.22$; spring 2009: $M = 8.5$, $SD = 1.48$; $t = -1.99$, $p < .05$); graphic cohesion (fall 2004: $M = 7.84$, $SD = 1.52$; spring 2009: $M = 8.48$, $SD = 1.66$; $t = 2.19$, $p < .05$); and the overall ePortfolio score (fall 2004: $M = 7.82$, $SD = 1.34$; spring 2009: $M = 8.63$, $SD = 1.65$; $t = -2.86$, $p < .01$).

⁷ To run an independent sample *t*-test, use the semester's database and select Analyze/Compare Means/Independent Sample *t*-Test. Because score comparisons are run across semesters, be sure to set the Grouping Variable in the codebook. A video demonstration of this process can be found at the NJIT site for iTunesU. See <<http://deimos3.apple.com/WebObjects/Core.woa/Browse/njit.edu.1302671158.01302671168.1303093807?i=1251486064>>.

Although no statistically significant difference can be observed of the scores on adapted tone, they consistently exceed the 7.82 score level in the comparative period.

Yet such improvement and consistency is not at all the case with the citation variable, as Appendix 2 clearly demonstrates. We had comfortably ignored the issue of attribution in technical writing instruction until our university research librarian challenged us to address and solve the problem. Based on her other information literacy work with university colleagues (Sharf, Elliot, Briller, Huey, & Joshi, 2007; Katz, et al., 2008), she focused her efforts on the ability of students to cite sources in a standard way (e.g., APA or MLA format) so that the original might easily be found. In the spring of 2006, this variable received the lowest scores we had ever witnessed ($M = 5.12$, $SD = 2.77$) because the instructors were not yet including basic information literacy instruction in the curriculum. As Appendix 2 shows, our experience with this variable has been tenuous, though at present we appear to have greater control over its instruction. The present score for the citation variable ($M = 7.66$, $SD = 2.84$) is statistically higher than it was during the fall of 2004 ($t(df) = 194$, $p < .01$). Thus we introduced a new element into the curriculum and, due to persistent instructional efforts, it statistically rose over time. These scores rose because our librarian defined it and an instructor began requiring annotated bibliographies in a proposal assignment. During the assessment itself, other instructors saw how this variable was being introduced and imitated the assignment; thus, the assessment enabled the emergence of a new variable for our model. We take such studies as evidence of the sensitivity of our model to context and its ability to facilitate the emergence of group knowledge.

Test-Criterion Relationships:

Overall Score, Course Grade and Cumulative GPA

Even though the variables and the model are highly correlated, the same is not true of the overall ePortfolio score, the course grade, and the cumulative GPA. As any keen reader has no doubt noted by now, we are assessing a program, not an individual student. We firmly believe that no assessment effort, however well-designed and executed, can ever capture a complex construct such as technical writing. The efficiency limits of such an assessment would themselves result in construct underrepresentation. As such, we hold that only the classroom instructor, present with a student for 15 weeks, can evaluate an individual student performance. Because our ePortfolios are always read near or after final grades are assigned, it is clear that our efforts are programmatic, not individualistic. It is therefore logical to take the course grade as a relevant criterion of technical writing. Hence, with the *Standards*

(AERA, APA, & NCME, 1999), we ask how accurately do the “test” scores predict the criterion performance (p. 14)?

Although the internal consistency of the model is very strong, correlations between the overall ePortfolio score—the best proxy for our model—and course grades are often absent, as Appendix 3 demonstrates. In the spring of 2009, only the citation variable has a statistically significant relationship to the course grade ($r = .29$; $p = .05$). A regression model taking all nine present variables shown in Figure 1 as the predictor and the course grade as the outcome yields a stunningly low relationship that lacks statistical significance: $R^2 = .162$, $F(9, 55) = .987$; $p = .464$). There is a relationship, however, between course grade and cumulative GPA, ($r = .527$, $p < .01$). A regression model taking the course grade as the predictor variable and the cumulative GPA as the outcome has a degree of prediction as well as statistical significance: $R^2 = .277$, $F(1, 55) = 20.72$, $p < .01$.

Although the lack of a relationship between our model and the course grades might upset some, we hold both that the model was not established to control grades and that the model does not incorporate all that has value in a classroom. Although we believe that our model is robust, we would never claim that it encompasses *all* that is present in the trait termed technical writing and its teaching. From persistence in revision to poise in oral presentations, there are a host of elements present in classrooms that will never be part of our assessment model. One element that our model cannot take into account is the diversity of the student body—students at NJIT are extraordinarily multicultural and international, often having fluency in multiple languages, so that each one begins from a different place. As well, relationships between course grades and cumulative GPAs are expected in students who have traditionally earned over 60 credits before enrollment, who have cumulative GPAs of 3.13 ($SD = .448$), and whose technical writing course grades are part of the GPA for that semester.

Conclusion

The model we have described in this article works for the purposes it was devised: to ensure construct validation by means of an articulated model, to design an assessment methodology to ensure the content validation of that model, to design a sampling plan to ensure wise use of time, to plan data analysis techniques to demonstrate our validation argument, and to use the assessment results to assure positive consequences. The assessment has had a positive effect on students, their instructors, our program, and our institution. This modest sense of program assessment, one that locates the students and their curriculum at the center of our efforts, makes the program as a whole

stronger and makes the goals of the program clearer to the university community. Because the process is embedded in our program, we can easily document our outcomes for accreditation agencies such as ABET and MSCHE without creating new work.

Ongoing cycles of assessment can provide a basis for collaboration and intellectual exchange to help us review and revise criteria, to look at ourselves and our programs critically, to make changes, and to query those changes. It is within our power to use assessment to help us adjust to change in a continually changing world. It is our hope that the model described in this article will provide a way for others to replicate and refine our efforts for their unique institutional sites.

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Author's Note

The undergraduate technical communication assessment model presented in this article was created by Norbert Elliot and Carol Johnson. The sampling plan was designed by Vladimir Briller and Kamil Joshi, with the support of Perry Deess. Contributors to the effort include James Lipuma, Nina Pardi, Robert Lynch, John Lyczko, Michael Kerley, Susan Fowler, Frank Casale, Brenda Moore, Michele Fields—and research librarians Davida Scharf and Heather Huey.

Appendix 1

Measurement Concepts and Statistical Terms: A Critical Vocabulary for Researchers

Term	Definition	Use	Key Source
<i>Measurement Concepts</i>			
Bias identification	The identification of bias is a process by which performance is observed to be different in defined groups due to systematic error.	Identification of difference in performance among groups is an important part of assuring fairness in assessment.	AERA, APA, NCME (1999, p. 172); Camilli (2006)
Consensus estimate	A consensus estimate is a measure of agreement between two raters.	A simple percent of agreement provides evidence of interrater agreement.	Stemler (2004)
Consequential validation	The consequences of assessment, both positive and negative, are key to the validation process.		AERA, APA, NCME (1999, pp. 23–24); Brennan (2006); Messick (1989)
Consistency estimate	Beyond a simple count of agreement, a consistency estimate provides correlations as evidence of reliability.	A Pearson product moment correlation and a weighted kappa both provide evidence of interrater reliability.	Haertal (2006, pp. 101–102); Stemler (2004)
Construct	The construct is the phenomenon that is under examination.	A combination of a well-articulated scoring rubric and samples of levels of student performance allows an expression of the construct to be measured.	AERA, APA, NCME (1999, pp. 17–18); Brennan (2006, pp. 22–23); O’Neill, P., Moore, C., & Huot, B. (2009, p. 198); White (2005)

Appendix 1

Continued

Term	Definition	Use	Key Source
Construct underrepresentation	If an assessment fails to capture the targeted construct, or provide evidence that a key aspect of the construct has been measured, then the meaning of the assessment is limited.	Because construct underrepresentation has been a perennial problem in the assessment of written communication (the overuse of tests of grammar, for example), validity argument assures that the construct, or a key aspect of the construct, has been captured.	AERA, APA, NCME (1999, p. 174); Brennan (2006, p. 31).
Construct validation	The process by which evidence is gathered in the service of the validity argument.	Construct validation may be achieved by three methods: specification of the proposed interpretation of scores during the assessment design; dedication to an extended research activity; and examination of plausible rival score interpretations.	Brennan (2006, p. 22); Messick (1989); Popper (1963)
Constructed response assessment	As a performance assessment, a constructed response task requires that students perform (that is, construct) a response.	A constructed response assessment holds the potential to allow the construct to be measured.	Baldwin, Fowles, & Livingston (2005); Lane & Stone (2006)
Content validation	The detailed statement of the construct to be measured.	If a rubric is well designed, it will serve as evidence that the construct has been fully defined.	AERA, APA, NCME (1999, pp. 18–19)

Appendix 1

Continued

Term	Definition	Use	Key Source
Criterion validation	The process by which a performance is related to the construct under examination.	If criterion scores on the assessment are related to performance levels on related measures—the relationship between, for example, ePortfolios and SAT® Writing scores—evidence of criterion validation is present.	AERA, APA, NCME (1999, pp. 56–57); Haertel (2006, pp. 66–67); Kane (2006, pp. 18–19)
Error in sampling	Defined as the difference between the sample and the given population, error exists when the outcome of the research fails due to sampling plan design.	Type I error (blindness) may be controlled by specifying a confidence interval for the sample; Type II error (gullibility) may be controlled by sample size.	Rosco (1968, pp. 152–158)
Evidence-centered design (ECD)	The evidence-centered design model focuses on assessment as an activity based on evidence.	Adherence to an evidence-centered design model allows researchers to anticipate the validation argument that will be offered in the design stage of the assessment.	Mislevy (2007); Mislevy, Almond, & Lukas (2003)
Mediated communication	The transactional nature of communication is transformed—that is, mediated—in digital environments.	As researchers recognize that communication is made complex in multi-modal environments, they will be better able to achieve construct validation.	Bolter (1999); Coppola & Elliot (2010); Murray (2009); Yancey (2004)

Appendix 1

Continued

Term	Definition	Use	Key Source
Sampling plan	A sampling plan is a designated sub-set of the larger specified population.	Because constructed response assessments are complex to design and difficult to evaluate, a randomly designed sampling plan allows the performance of the sub-sample to be representative of the specified population.	Mazzo, Lazer, & Zieky (2006, pp. 684–688)
Validation	Validation is a process by which the targeted construct, or a key aspect of that construct, is measured.	Attention to both evidence-centered design and consequential validation will help to ensure that an assessment will serve its shareholders.	Brennan (2006); Huot (2010, pp. 23–31)
Validation argument	A rhetorical term emphasizing process and audience, the validation argument presents the claim that targeted construct, or a key aspect of that construct, has been measured.	The Toulmin model of logic is well suited to the presentation of validity arguments.	Kane (2006, pp. 27–31); Toulmin (1958)
Variable model	A variable model is the construct to be measured expressed in terms of relationship between the predictor (<i>X</i> , or independent) variables and the outcome (<i>Y</i> , or dependent) variable.	A variable model allows the construct to be expressed in terms of its component elements.	Coppola & Elliot (2007, 2010); Elliot, Briller, & Joshi (2007); Johnson (2006a, 2006b); White (2005)

Appendix 1

Continued

Term	Definition	Use	Key Source
<i>Statistical Terms</i>			
Confidence interval	A confidence interval is the range of scores thought to include the mean score of the specified population.	A confidence interval allows the researcher to provide a validity argument that the sampling plan is representative of the specified population.	Lockhart (1998, pp. 224–234)
Correlation	A correlation coefficient is a number that ranges from 1 (perfect) to 0 (no relationship) expressing the relationship between two variables.	Used in consistency estimates, a correlation coefficient (such as Pearson r) provides an estimate of inter-rater reliability and a probability of the relationship occurring by chance. Correlations can also be used to gain information on variable models and establish criterion validation.	Lockhart (1998, pp. 485–486)
Descriptive statistics	The use of descriptive statistics—the mean, mode, median, and range—allows basic analysis.	The use of descriptive statistics allows a basic sense of patterns, often displayed graphically.	Lockhart (1998, pp. 51–80)
Inferential statistics	Inferential statistics—probability, regression, and tests of significance—allow relational evidence to be drawn.	Correlation and regression yield associative and predictive evidence.	Rosco (1968, pp. 144–262, 273–284)
Mean	The mean is the sum of scores divided by the number of scores.	The balance point of the scores, or the average, is a central feature of descriptive statistics.	Lockhart (1998, pp. 74–75)

Appendix 1

Continued

Term	Definition	Use	Key Source
Median	The median divides a set of scores into two halves.	Defining the middle score allows a description of the lower and upper half of the scores.	Rosco (1968, pp. 40–41)
Mode	The mode is the most frequently occurring score.	Analysis of the mode of scores allows examination of distribution.	Lockhart (1998, pp. 73–74)
Probability	The probability of a behavior occurring, such as a score, is equal to the relative frequency of the score occurring in the larger population.	Expressed in terms of a confidence interval, the probability estimate provides evidence of certainty that the sub-population is representative of the larger specified population.	Rosco (1968, p. 117)
Range	The range allows a description of score dispersion.	Analysis of a range of scores demonstrates the extent to which scores distributed.	Rosco (1968, pp. 45–46)
Regression	Regression analysis, indicated by the coefficient of determination, allows strength of models to be analyzed and their probability estimates to be drawn.	A regression analysis demonstrates the prediction of the relationship between the predictor (X, or independent) variables and the outcome (Y, or dependent) variable.	AERA, APA, NCME (1999, p. 21); Lockhart (1998, pp. 448–507)
Specified deviation	The specified deviation is defined as the deviation that the researcher can tolerate between the sample mean of the sub-population and the true mean of the larger population.	The specified deviation is a measure that allows the researcher to be confident, at a designated level, that the mean score of a sub-group is representative of the scores of the total population.	Kerlinger & Lee (1999, pp. 297–298)

Appendix 1

Continued

Term	Definition	Use	Key Source
Standard deviation	The standard deviation, the square root of the variance, is a measure of score dispersion.	As a descriptive measure, the standard deviation allows determination that the percentage of scores will lie within certain intervals from the mean score.	Lockhart (1998, pp. 80–82)
Standard error of the mean	The standard error of the mean is calculated by dividing the standard deviations by the square root of the population under investigation.	The standard error of the mean allows researchers to estimate how much the sample size means may vary if different samples are taken from the same population.	Norusis (2011, p. 98)
Tests of significance	Built on a family of distribution curves with the single parameter as degrees of freedom (the number of observations on which an estimate is based), tests of significance allow the researcher to determine if score differences are statistically significant and are unlikely to have occurred by chance.	The independent sample <i>t</i> -test allows examination of the degree of difference of the scores of two groups.	Lockhart (1998, pp. 230–233)
Weighted kappa	A measure of consistency, the weighted kappa allows benchmarks for strength of agreement.	Cohen's weighted kappa (κ) allows interrater reliability to be determined.	Landis, J. R., & Koch, G. G. (1977).
Z-score	The Z-score, or standard score, allows scores to be transformed so that that they have the same mean and standard deviation.	In sampling plan design, the use of a designated Z-score allows a confidence interval to be established for the representativeness of the scores in the sub-sample.	Kerlinger & Lee (1999, pp. 297–298)

Appendix 2

Descriptive statistics for the NJIT Model (n = 636)

	Mean Scores								Standard Deviations								Range							
	f04	s05	f05	s06	f06	s07	f08	s09	f04	s05	f05	s06	f06	s07	f08	s09	f04	s05	f05	s06	f06	s07	f08 ¹	s09
n	61	50	124	140	92	88	25	56	61	50	124	140	92	88	25	56	61	50	124	140	92	88	25	56
ePortfolio	---	---	---	---	8.79	8.59	8.24	8.71	----	---	---	---	2.41	1.64	1.20	1.22	---	---	---	---	2,13	3,12	5,10	7,12
Clear Style	7.77	7.94	8.19	7.58	8.15	8.08	8.16	8.46	1.28	1.48	1.95	1.84	1.87	1.66	.99	1.44	4,10	4,11	2,12	2,12	3,13	3,11	6,10	5,12
Accurate Usage	7.54	7.76	7.77	7.31	7.52	7.75	7.64	8.18	1.40	1.57	2.16	1.70	1.72	1.60	1.19	1.54	4,9	4,11	2,12	2,12	3,12	3,11	6,9	2,12
Task Knowledge	8.00	8.32	8.20	7.76	8.04	8.18	8.08	8.50	1.22	1.38	2.05	1.75	1.79	1.81	1.29	1.48	5,11	6,11	2,12	2,12	3,12	2,11	4,10	4,12
Relevant Content	7.93	7.84	8.25	7.45	7.97	8.18	7.80	8.43	1.20	1.53	1.89	1.73	1.69	1.81	1.32	1.57	5,11	4,11	2,12	2,11	4,12	2,11	4,10	4,12
Adapted Tone	7.82	7.94	8.19	7.41	7.78	8.07	7.68	8.11	1.27	1.43	1.92	1.73	1.47	1.57	.99	1.85	5,10	5,11	2,12	2,12	4,12	3,11	5,9	3,12
Graphic Cohesion	7.84	8.00	8.10	7.59	8.13	8.02	8.24	8.48	1.52	1.67	1.98	1.84	1.70	1.75	.90	1.66	3,11	5,11	2,12	3,12	4,12	3,11	6,10	5,12
Citation	----	---	---	5.12	6.50	7.22	6.44	7.66	----	---	---	2.77	3.23	3.49	1.85	2.84	---	---	---	2,11	2,12	2,12	3,11	2,12
Overall Portfolio	7.82	8.08	8.45	7.66	8.13	8.19	8.04	8.63	1.34	1.44	1.98	1.83	1.79	1.70	1.34	1.65	4,10	4,11	2,12	2,12	5,12	2,11	4,10	7,12

¹This semester the range of scores was limited because the only analyzed portfolios were those with no discrepancies.

Appendix 3

Correlation analysis of the present NJIT Model with criterion variables of course grade and cumulative GPA, Spring 2009 (n= 56)

	ePortfolio Design	Clear Style	Accurate Usage	Task Knowledge	Relevant Content	Adapted Tone	Graphic Cohesion	Citation	Overall Score	Course Grade	Cumulative GPA
ePortfolio Design	-	.607**	.387**	.506**	.522**	.475**	.654**	.203	.563**	.059	.162
Clear Style		-	.742**	.607**	.666**	.659**	.52**	.217	.658**	.135	.283*
Accurate Usage			-	.64*	.705*	.697*	.463*	.338*	.637**	.119	.161
Task Knowledge				-	.768**	.734**	.589**	.232	.706**	-.063	.127
Relevant Content					-	.762**	.657**	.257	.682**	.038	.22
Adapted Tone						-	.629**	.257	.731**	.063	.135
Graphic Cohesion							-	.27*	.599**	.031	.009
Citation								-	.4**	.29*	.208
Overall Score									-	.009	.111
Course Grade										-	.527**
Cumulative GPA											-

*p<.05

**p<.01

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Working It Out

Community Engagement and Cross-Course Collaboration

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Abstract. This article reports on the results from a pilot program called Semester @SEA, an initiative in the undergraduate Professional Writing Program at Purdue University intended to encourage student engagement and activism. The four faculty who taught and managed students in the program report on their experiences and theorize four corresponding developments: new understandings of engagement as immersion, adaptation to emerging work environments, enhancement of leadership skills, and pedagogical transfer to other courses. This article relates the development of student leadership in postindustrial workplaces where they move beyond pseudotransactionality and into self-motivation and achievement, concluding with advice for undertaking and reporting programmatic innovation

Keywords. community engagement, curriculum, immersion, internship, leadership, service learning

As faculty, we would like to imagine that students are well-read, technically savvy, ambitious individuals who devote all their time to their courses. We assume they are well prepared for classes, engaged with the instructor and with one another, and know how to work effectively in

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groups. These imagined students do not have part-time jobs that distract them from their education; rather, they spend their free time volunteering with community groups that offer them meaningful challenges in which their classroom instruction is made real with rewarding work. They also spend their summers in writing-intensive, paid internships with cutting-edge companies and businesses.

When woken from our reverie, we realize that, instead of our idealized expectations, we find ourselves teaching in a mid-sized technical and professional writing major in a Midwestern university located in a predominantly rural area. Although students are smart and enjoy the major, they are sometimes unsure of what they can do with their degrees. They are busy working part-time jobs to pay their tuition—jobs that draw little on their classroom experience or reinforce the gap between work and school. They have little-to-no recent experience with community organizations. And although these students would like to undertake internships, they cannot afford to devote 20, or even 10, unpaid hours weekly to an internship; even if they could afford the time, there are few local businesses or industries that can support writing and communication internships.

For those of us who teach in similar communities, providing real world writing experiences for students in professional and technical writing courses can be difficult without service learning. And yet, as others have pointed out (Cushman, 2002; Scott, 2008; Simmons, 2010), sustaining service learning endeavors can prove difficult. When implemented as the end-of-the-semester project model (Cushman, 2002), service learning can provide limited exposure to the work processes that will prepare students for life after graduation. Moreover, sustaining constructive relationships with community partners over time can be difficult because service learning, especially in business and technical writing service courses outside the major, often gets implemented for a specific semester, course, or assignment.

This article explores some of the ways in which we provided immersive, sustainable, and real world writing experiences for students with a single community partner. Because our location does not afford us the opportunity for students to engage in internships with corporations or industry, we have often relied on service learning as a way to provide authentic work experiences. We define service learning, for the purposes of this article, as authentic, rhetorically based writing and communication in the service of community organizations or groups. As Thomas N. Huckin (1997) articulated so well, service learning involves three goals: “(1) helping students develop their academic skills (in this case writing), (2) helping students develop more civic awareness, and (3) helping the larger community by addressing the needs of local nonprofit agencies” (p. 50). Huckin’s revolutionary suggestion fueled research on connections between professional writing and service learning, including work on service learning internships (see

Savage, 1997; Matthews & Zimmerman, 1999; Rehling, 2000; McEachern 2001; Sapp & Crabtree, 2002; Bowden and Scott, 2003; Dubinsky, 2006; Sapp & Zhang, 2009). Given our context, instructors will sometimes work with small community businesses or start-ups that do not have the funds to contract with writing experts and that do not have the internal expertise or structure to complete certain tasks. Although this situation may seem like “free labor,” these small businesses generally provide a needed service to the community without the goal of large profits. Therefore, the work these students do constitutes a type of service learning we might categorize as community engagement.

One challenge of maintaining a service learning focus at the program level is sustainability over time and across the curriculum. We value our community service sites as unique partners for our professional writing program, yet there is often little communication among classes or projects—before, during, or after the semester—which leads to a lack of continuity. Such complicating factors in community driven projects can result in burnout, exhausting both instructors and community partners.

The Professional Writing program at Purdue University sought to address these concerns through a pilot program called @SEA (Student Engagement and Activism) that would foster community partnership sustainability and educational immersion. Program administrators wanted to provide students with realistic writing opportunities and exposure to client demands and expectations, but with an experience that would break free of the constraints imposed by a one-semester course. We sought to integrate the best features of service learning (see Butin 2005) with emergent ideas regarding community engagement (see Colby et al, 2003) and the immersion of a semester abroad (see Stearns, 2008) with the professionalization available in the best internships (Sides and Mrvica, 2007).

In what follows, the four principle designers of an innovative, grant-funded program describe their experience before, during, and after the program, describing the key elements in getting the program off the ground as well as its outcomes for students and faculty. Although not intended as a model, @SEA does present a compelling case for marshalling local resources to support programmatic innovation. This article describes the impact on education and workplace preparation for undergraduate students as well as the ways in which such innovation has lasting and long-term impact on programmatic and pedagogical practices. Begun with a wish to overcome limits imposed by institutional calendars and curricular constraints, the program allowed students to glimpse the challenges of the postindustrial workplace while faculty developed alternative modes of evaluation. The pilot program resulted in a range of innovative changes across the program, moving from advanced upper-level undergraduate course design to the service classes that serve many

more students with challenging, rewarding, updated content, and instructional methods. Another outcome has been to support a culture of doing and showing: supporting a production-focused undergraduate program. Innovation is characteristic of this program and instructors at all levels seek to advance the goals of creating an immersive curriculum. Change permeates planning at all levels of professional writing instruction.

Beyond concerns of sustainability, program administrators wanted to address what we perceived as the lack of community among students in the Professional Writing major. We saw the need for a more immersive educational experience among undergraduates, one that would allow students to network and collaborate in and outside classes. We also sought to create an educational situation that fostered investment beyond instructor prompting, an investment in which students could actively apply the skills learned in classes.

Thus, we decided that what we came to call our Semester @SEA would combine conceptions of service learning, study abroad, and learning communities in a semester-long pilot that required students to register for a minimum of two of three coordinated, advanced Professional Writing classes. The projects for these classes consisted of a range of materials all created for one specific community partner. We envisioned an immersive experience in which students not only worked together in classes but also extended their out-of-class time by attending meals and seminars together, going on field trips, and working collaboratively after hours.

What we discovered, though, was that our original two goals—sustainability and immersion—were not fulfilled in the particular ways we imagined; rather, we witnessed four distinct developments emerge on both individual and programmatic levels: new understandings of engagement as immersion, adaptation to emerging work environments, enhancement of leadership skills, and pedagogical transfer to other courses. These four developments allowed all participants—from undergraduate to graduate student to faculty and administrators—to rethink how we might foster student engagement and interaction in both the classroom and the larger community.

The following discussion chronicles these developments through our reflections on the experience and theorizes what the results of our pilot program might mean both for our program as well as more broadly for the field of Professional Writing. The early sections outline the exigence and structure of the program; the latter sections each contain reflections on the program from the perspective of a different member of the @SEA management team. Although we do not necessarily see this initiative as a model for every program, we hope that it might prompt faculty to consider innovative programmatic approaches for educating professional writers in their local situations.

Theorizing Exigence

The Professional Writing program at Purdue has consistently engaged in service learning projects with local organizations for at least twenty years. Local organizations are happy to provide students with the opportunity to learn about not-for-profit work, and they have benefitted from student projects. But recently, we've noticed that community service learning projects lasting only for one semester are limited in their effectiveness; projects and documents are completed according to the flow of the academic calendar and end as soon as the semester is over. Although many students have intentions of continuing to work with the organizations after the formal class is over, they often find that they do not have the time to do so outside class. Similarly, because many projects last for only one semester and because of staff turnover in local agencies, projects are sometimes repeated across several different classes, many of which were service-based business and technical writing courses. The finite nature of these semester-based projects provides students with a glimpse of what it might be like to work in a community based workplace, but not the intensive professional situation that might best benefit our students. We also noted issues with the professional development of undergraduates in a number of related areas, from problems shared with other large and established programs to those emerging from unique local conditions. Some issues include the blurred organizational and classroom spaces, students' lack of understanding of how to take initiative, isolation of students at worksites, and the shift from larger employers to smaller, nimbler organizations.

Although these problems were most endemic to students in our major, they are often problems encountered among the general population of students taking business and technical writing service courses. Thus, we saw our program as a way to address problems that all students might face in a postindustrial economy.

One of the most significant issues that students face is their inability to understand how to operate within an organizational versus a classroom space. That is, students often try to fit their work into a classroom model rather than a workplace structure. Clay Spinuzzi (1996) defined this phenomenon as pseudo-transactional writing, or "writing that is patently designed by a student to meet teacher expectations rather than perform the 'real' function the teacher has suggested" (p. 295). We noticed that even in service learning classes, students often fell into pseudotransactional practices, focusing more on writing for a teacher or school context rather than writing to address the needs of a client. This focus could stem from an inability to understand how to operate in an organizational space, but it could also result from a lack of interest or motivation.

Students in internships—particularly students with little or no workplace experience—can find themselves isolated in a number of ways, either from their inability to articulate their strengths and needs, or from inappropriate expectations from their worksites. Some students seem unwilling or unable to recognize the need for organizational research and awareness—getting to know colleagues, coworkers, managers, and leaders. Few workplaces closely resemble campus organizations, and even those with passing resemblances often have far different power structures. So students often struggle with adapting to new workplace environments different from the familiar culture of school.

In these situations, students are willing to accept satisfactory work and resist the initiative and motivation necessary to imagine what it would take to excel, doing good enough while not pushing themselves to higher accomplishments. This lack of motivation might be attributed to different generational values, especially, for instance, the lesser organizational loyalty and misapprehension of workplace-related values in younger generations such as Brenton Faber (2001) described. We see this gap play out in context-specific ways among undergraduates who imagine that their internships will be, for instance, well-planned and presented to them, as if their work were a movie they could watch and absorb rather than a process in which they must participate and engage. However well-prepared students seem, entering a worksite can often leave the most self-assured student uneasy in a new organizational culture. Students often find themselves passively waiting for opportunities to arrive, making it someone else's job to keep them busy. The best organizations have developed programs and processes to raise internship effectiveness and provide challenges for new interns, but not all organizations have the resources for such structured development. Workgroups and smaller communities within a large organization are more likely to provide employees with identity and connection to a workplace community. Yet larger organizations are becoming less likely job sites for recent graduates, with more new hires going to organizations with fewer than 100 employees. Indeed, at the depths of the recession started in 2008, small businesses continued hiring and actually increased their payrolls through June 2009 (according to surepayroll.com, 2009). The era of big corporate organizations seems to be passing with more attention afforded to smaller, mobile subcontractors. However, students are often acculturated into large campus communities that do not effectively or realistically represent the kind of team-building and collaboration necessary to succeed in the postindustrial workplace.

The Semester @SEA program was intended to address these transactional concerns through a sustained partnership with one local organization. We began by searching for internal opportunities for program development and found that the College of Liberal Arts at Purdue had recently revised its

engagement program, or PLACE (Purdue Liberal Arts Community Engagement). We wrote an innovative PLACE grant that pooled resources and eventually found funding for four coordinated awards, resulting in more substantial resources that allowed the team to hire two graduate assistants to assist in the management of the program.

For fall 2008, the pilot semester of the Semester @SEA program, rather than search for new local businesses and nonprofit center organizations that had unmet needs, we sought to build a sustainable collaboration with Tippecanoe County Historical Association (TCHA), a “nonprofit organization dedicated to collecting and preserving information and artifacts relating to the history and culture of Tippecanoe County, Indiana, and its citizens” (Tippecanoe County Historical Association, n.d.). Once a large, well-staffed organization, TCHA has been forced to downsize extensively and thus has a number of perennial and complex writing needs, which could be translated into persistent engagement opportunities. We proposed to initially focus our work on Fort Ouiatenon, a historically significant and archaeologically valuable site and community resource maintained by TCHA. The TCHA and Fort Ouiatenon face a number of challenges that fit particularly well with the design of the pilot program. The Fort had numerous historical displays and markers that were weathered and needed replacement, allowing students hands-on experience with signage and multimodal writing. The displays inside the structure needed to be updated both for their content to reflect recent historical findings and for their technology of presentation; the professional writing students are well prepared and excited about transferring images from slide to electronic media and building web-based materials. And the TCHA needed students to create press releases, pamphlets, booklets, and documents to support Fort Ouiatenon.

What couldn't be foreseen, however, was that the Fort would be flooded twice during the spring semester: once in an unusual winter flood brought on by unseasonably warm weather, and a second, less uncommon flood accompanying later spring rains. The conditions made many planned site trips impossible to realize. Additionally, between the original proposal and implementation, a new executive director of TCHA was hired, who identified new documentation needs. In an age of distributed work, community organizations are changing. The TCHA recognized that its demographics were trending older, and they wanted to attract a younger audience. They saw a semester-long engagement with the professional writing program as an opportunity because, although they recognized the potential for documentation, websites, podcasts, and grant research and for writing tasks as contributions to their organization, they also found the prospect of a sustained collaboration with their target demographic group to be promising. Association volunteers and staff had direct exposure

to exactly the people they wanted to attract to their organization. Students worked on documenting the TCHA's activities in a variety of forms: traditional printed books, grant proposal information, website presence, and audio podcasts. These changes also affected how we would manage and coordinate the logistics of the program.

Structure and Logistics

Students were required to register for a minimum of two of the following three classes offered in order to be full participants of the Semester @ SEA program: English 470 Theories of Rhetoric and Composition, English 515 Advanced Professional Writing, and English 488 Internship in Professional Writing.

English 470 Theories of Rhetoric and Composition covered texts and technologies related to the history of the state of Indiana, the Midwest, and the Ohio River Valley. This background knowledge provided students with the information they would need to approach their work with TCHA and established them as subject matter experts for the program. Using this knowledge, students produced documents for use by TCHA and worked with historical materials.

English 515 Advanced Professional Writing introduced them to the technological tools they would need to produce materials for TCHA. Building on the idea that professional writers work in organizations of varying sizes, complexities, and access to resources, the class became part of the TCHA, a kind of branch office, producing a variety of documents for use and distribution by the historical organization. At the end of the semester, students presented their materials to the TCHA at the organization's monthly board meeting.

English 488 Internship in Professional Writing provided a two-hour course in applied rhetoric in tandem with an 8–10 hour per week internship with TCHA. All interns served as leaders of various projects and liaisons with the community partner.

All three courses are advanced classes that compose the backbone of senior offerings in professional writing, and all three enrolled students committed to the Semester @SEA Program alongside students not registering for the program, which created a logistical issue that we had not foreseen. Many seniors in the professional writing program required one of these three classes for graduation, and there were neither sufficient students nor faculty available to teach additional sections. Besides growing larger than anticipated, the level of commitment to projects differed among students. Although unforeseen, the differing levels of commitment and the number of students presented an opportunity for us to think about the administrative structure of the program. In the end, the program core was composed of 20 undergraduates, twelve of whom were enrolled in both English 470 and English 515, and eight of whom were enrolled in the internship course.

In light of the number of participants and available funding, we created a structure in which the eight Professional Writing interns served as project managers for student groups in the other classes. In turn, we also hired two graduate assistants to supervise the interns and to serve as teaching assistants for the other two classes. This structure allowed the interns to motivate, lead, and manage the work of a student group, which more closely reproduced the conditions of many workplaces; it also allowed the graduate students to manage interns in a type of employment situation.

On one hand, this structure lessened the pressure on the partner organization to create work for more interns than they were capable of supervising. At the same time, faculty members were relieved of the burden of imagining numerous engagement projects. Instead, interns took the lead, and graduate student supervisors mediated their interactions with the partner organization. Meanwhile, hesitant and underprepared students did not work directly with clients. Community perception was more aligned with @SEA expectations, and perhaps most importantly, opportunities for expression of student interest opened, which allowed for student leadership that had not been realized within the previous structure of community engagement.

Enacting @SEA

As mentioned earlier we arranged two different experiential contexts for students in @SEA. A small number of students worked as project manager interns. The majority of students, though, attended one or both of the classes strictly as students, attending lectures and participating in online and face-to-face discussions. One major difference for these classroom-only students is that they were asked to apply to and participate in projects led by their peers. Those students who understood that their assignments were different in the class or classes did well, recognizing and being led by the interns who created organizational materials. Interestingly, students who did poorly were those who tried to appeal to the teacher or otherwise responded to the @SEA classroom as a traditional class and who did not work well with their peers in positions of leadership and authority. As faculty, no matter how many times we called students' attention to the requirements and expectations of their peer leaders, they inappropriately looked to either faculty or graduate instructors for "breaks" or workarounds. Those who asked for guidance and advice—and who followed through on this coaching—found themselves becoming more successful and more valuable members of their workgroups. In this way, the @SEA program succeeded in extending the internship experience to a wider group of students without overburdening the community organization.

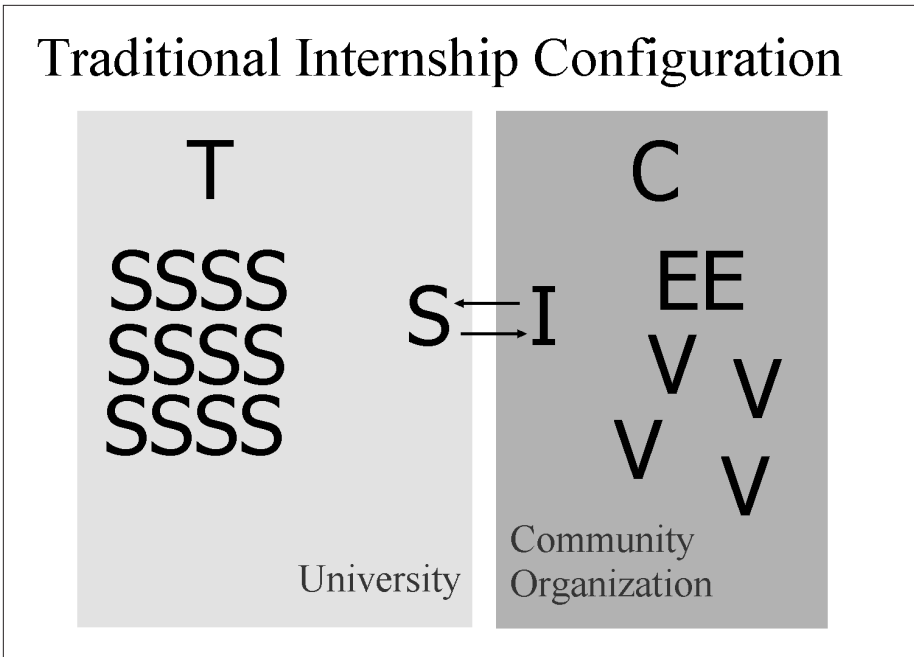


Figure 1. Showing the traditional divide between classroom and internship, where the student/intern shifts understanding from school to worksite and back, effectively requiring each student/intern to translate from classroom to workplace and back. Here, T stands for teacher, C for internship site coordinator. S is for student and I for intern. E is employee and V for volunteer.

Figure 1 represents interns at the center to focus the discussion for the purpose of this essay. They are portrayed both as moving between the university and off-campus community organization as well as moving information across these institutional boundaries. Interns are a primary source of information about the workplace for students (S) who remain on campus. Classroom teachers (T) are, traditionally, at the top of the University hierarchy—at least in the classroom—although the internship coordinator (C) is, from the intern’s experience, the person they are most likely to report to at the work site, and the person who has some interaction with the classroom teacher. Community organizations consist of numerous individuals, which we have represented rather reductively as paid employees (E) and unpaid volunteers (V), while recognizing that there are varieties of complex and layered roles such individuals play. The traditional internship configuration shown here most closely resembles the “modern” internships described by Sides and Mrvica (2007). Students in this model often report feeling marginalized at the worksite, placed outside both formal and informal office structures, and at the bottom of two different hierarchies. The@SEA intern-

ship was developed in part to enable students to see themselves differently, to give them some control and an opportunity to exercise leadership.

The students who experienced @SEA most fully were the interns, and we will focus on that group for the remainder of this article. The @SEA interns were organizers of communication projects and had access to leadership opportunities available in only the very best internships. Readers who administer internship programs will recognize this rare distinction. Although unpaid, interns researched the organization's need, proposed solutions, wrote text, built web resources, and presented their projects to the executive board, all while learning to manage and motivate teams consisting of five-to-eight undergraduate peers. One real advantage was that these interns came to understand the challenges inherent in taking an idea from germination to realization, or more familiarly, from invention through arrangement, style, memory, and delivery.

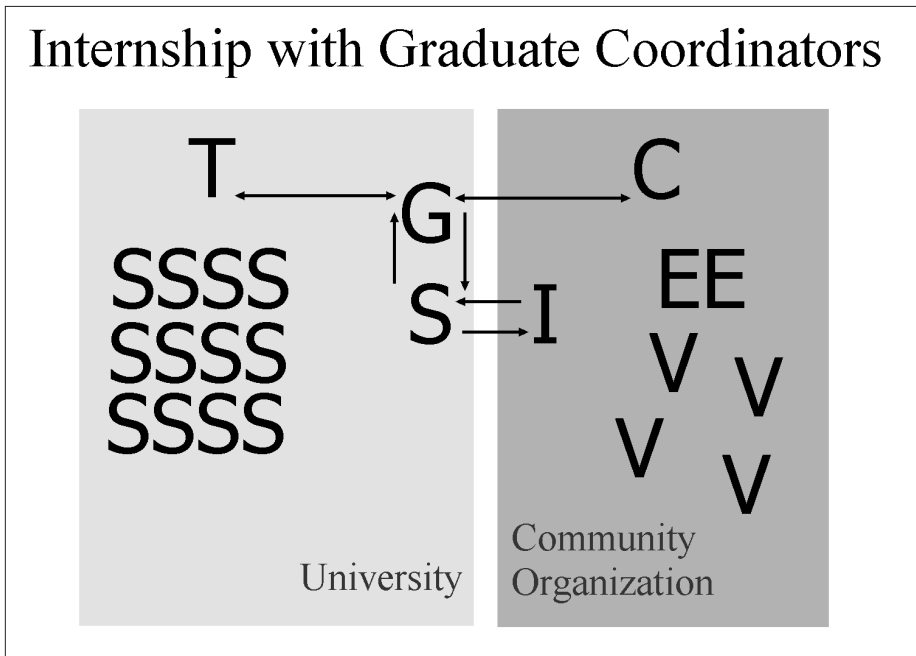


Figure 2. Shows a more complex relationship among the stakeholders. Here, the emphasis is on the change precipitated by including graduate coordinators (G) and how it complicates the information flow between school and internship sites. Students/interns who communicated well with the graduate coordinators demonstrated better understanding of the flows of power and information that impacted their internship and demonstrated more constructive working relationships with their peers, represented as students (S).

Interns, again represented both by the **S** and **I** in Figure 2, still bridge the two communities: university/classroom and community organization/worksite. Including the graduate student instructors, labeled **G** in this representation, emphasizes the constructed nature of the relationship and the reliance on interns for success. The graduate instructors acted as a communication conduit between classroom and worksite, effectively supporting the individual projects and keeping both classroom instructors (**T**) and worksite coordinators (**C**) informed. The interns, however, became acutely aware that they possessed knowledge that no one else possessed and that the success or failure of each project depended on each intern's efforts and the work of their peer groups.

Students had to be self-starters and effective organizers not only of their own but also other peoples' time. All the groups had challenges motivating students to complete the work not according to regular classroom standards, but to the standards set by the interns. These challenges revealed one successful realization of program goals in moving from pseudotransactionality to transactionality as well as a wakeup call to students accustomed to working "good enough." Interns managed time, resources, and set and followed through on budgets. Part of the grant money was used to fund small budgets, purchasing technology and software not available elsewhere on campus, texts, travel, museum trips and entry fees, and other resources students would not be able to access without modest grant support.

In addition to being self-starters, students had to learn to work across classes and across different levels of student engagement. Those students enrolled in only one of the three courses were informed that many students would be taking other classes in conjunction. Therefore, classroom discussion included reference to texts and technologies explored in the other two classes. Students took these matters in stride and often students enrolled in the other classes took the lead in informing their classmates of developments in other settings. These cross-classroom discussions seemed to strengthen student interest and commitment to the @SEA concept and allowed students to articulate their expertise, making them better able to play the role of expert.

Accustomed to thinking of themselves as students, the internship also provided an opportunity for students to gain a new self-perception: as emerging professionals and as potential leaders. Internships with leadership responsibility are rare in opportunity-rich areas, and almost nonexistent in our smaller community, and so the @SEA internship was designed to offer leadership opportunities. Interns able to shift their self-image, imagine new configurations of authority, and build new communication networks reported satisfying and challenging service learning experiences. These student leaders also began to notice differences among the level of commitment and engagement their peers demonstrated.

Student-Intern Perception Shifts

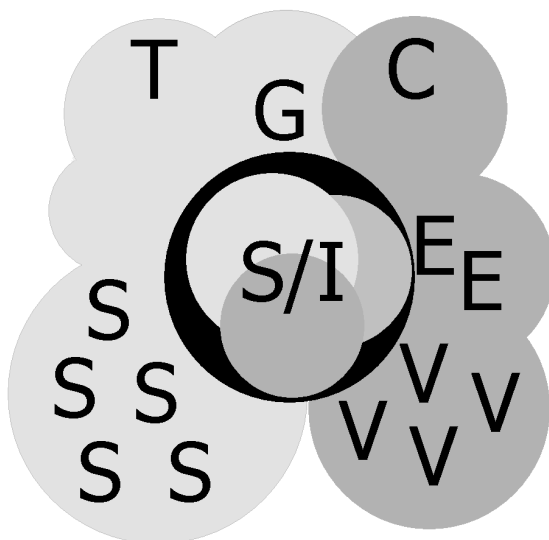


Figure 3. Ultimately, interns who worked effectively with the more complex structure demonstrated an emerging awareness of the flow and function of authority at their service-learning site and were more effective managers of the team of students they lead. These interns demonstrated effective management techniques and built collaborative teams rather than asserting command and control type management.

The differing levels of engagement among undergraduate students became a regular topic of conversation among the interns and the graduate teaching assistants. This conversation became a site for the professionalization of undergraduate interns, which was an explicit goal of @SEA. However, it also became an important arena for the professionalization and pedagogical development for the graduate students, who came to understand their role in more complex and rhetorically sophisticated ways.

Ultimately, the interns gained experience and confidence in leading and motivating small work groups, came to understand expectations, designed and completed the kind of textual objects their major studies had been preparing them to complete, and presented their work publicly before decision-makers. Our community partner received innovative communication materials as well as access to a key demographic group they wanted to attract. More importantly, students had an experience that closely mirrored the kind of postindustrial knowledge-making work they will likely encounter. And in considering student achievement, former @SEA interns are working successfully as professional writers in Chicago, New York, Indianapolis, and Silicon Valley, and are studying

for advanced degrees in fields such as Library Science and Law. Although this correlation is not causation, it does speak well of the students in the program.

Emerging work environments

Although Purdue graduates have gone on to work successfully in large, urban centers, cultivating local workplace sites for internships is a perennial challenge for the program. Although Purdue is an agricultural- and engineering-based, land grant institution, it is also located in a fairly rural part of the state. As previously mentioned, we do not have the business and industry connections that other large metropolitan areas might. However, what we do have are strong ties to the local, not-for-profit community. Purdue maintains a significant relationship with the United Way, a major fundraising entity for the community, and the university serves as a chief fundraiser for that organization. Recent years have seen an increase in the commitment to community engagement. Our College of Liberal Arts, for instance, now has an associate dean position devoted solely to engagement and interdisciplinary learning. There are also grants and positions available to faculty who engage in service learning in the classroom and in the community (one of which funded the first instantiation of @SEA).

This culture of community engagement allows us to rethink the traditional internship as one of on-the-job apprenticeship and instead adopt a model of distributed work that might be more realistic given the current economic climate. In their book-length discussion of internships, Charles Sides and Ann Mrvica (2007) outline a history of internship models: classical, modern, and postmodern. Similar to the medieval guild experience, the classical internship model is a traditional apprenticeship in which the novice learns a single trade or craft, learns by doing or observing, and spends a certain length of time learning the trade (p. 8). The modern internship experience can be differentiated by training toward particular standards, more supervised training, formalized qualifications and means of testing those qualifications, and an established employment contract (pp. 8–9). The postmodern internship model remains similar to the modern internship except that it includes two important shifts. First, there is a stronger focus on “flexibility demonstrated increasingly by a focus on transferable skills needed in professions that are changing more quickly than ever” (p. 10). This flexibility is coupled with a focus on lifelong learning: “The most valuable professionals,” Sides and Mrvica state, “will be those who continue to learn and upgrade their knowledge and skills throughout their professional lives” (p. 10). Most contemporary internship programs, including our own, abide by this postmodern model, but interestingly, students often see the internship in terms of the classical or modern model. We saw this view

in the internship course and the interaction between @SEA interns and the other interns in the course who undertook more “traditional” internships. Early in the semester, those students expressed sympathy that the @SEA interns did not have clear expectations of what was expected of them, as they did. Even the @SEA interns often commented that they were missing something in the internship experience, which they interpreted as a lack of structure.

What happened, though, is that this “nontraditional” internship produced different knowledges and skills that are more appropriate for the contemporary working world that these students will be entering. Although the interns believed that they should be learning a stable “craft” or knowledge base under close supervision from an expert in an established setting, in actuality, they were learning how to work in a distributed environment. Clay Spinuzzi (2007) outlined some of the qualities of distributed work in his introduction to the *Technical Communication Quarterly* special issue on distributed work. Such work emerges due to the shift from post-Fordist work structures to the “new economy,” which he describes as “the fundamental shift in work organization away from the stable, rationalized, modular work structures that characterized the Industrial Revolution and toward less stable, more interpenetrated work” (p. 266). Distributed work involves “more communication, more and different types of communication, and consequently, more need for rhetorical analysis and rhetorical skill,” he explains (p. 266). It is more about engaging services and making connections than about creating an actual product. In light of these descriptions, we might expand Sides and Mrvica’s description of the postmodern internship model to include this kind of distributed work in which workers are expected to wear many hats and continually resituate themselves in a network of communications, technologies, and capacities. In such an environment, interns would be more like “dividuals”—one part writer, one part project manager, one part programmer, one part student” (p. 273). This bears a striking similarity to what workers at small businesses and not-for-profits have experienced for quite some time.

Long before the current economic crisis materialized and before skills associated with the network society emerged, we made a commitment to pursue internships with small businesses and not-for-profits mainly for logistical reasons; we have a dearth of corporate connections in our locale. But as students have engaged these more localized internships, added benefits have emerged. Because students were not based in traditional corporate workspaces, they often have more responsibilities than they might normally have. They are often able to take full responsibility for projects and have closer relationships with supervisors. Interns at not-for-profit agencies and organizations learn about the rhetorical situations of local community work, which are often grounded

in history and economics. That is to say, small community organizations and businesses sometimes are affected by changing economic realities in ways that large corporations might not be; for instance, the economic crisis may force a large corporation to stop catering food for internal meetings, thus forcing the closure of the local catering business that it sustained. Interns become more informed by the history of the organization, the community's needs, and the larger relationship between community and business.

As the "new" economy produces more layoffs and downsizing, students can expect their job prospects to narrow, particularly with large organizations. Areas that continue to hire, though, are the not-for-profit, niche markets, and small business sectors. As more and more Americans find themselves in need, community agencies and organizations rise to address those needs. Placing interns in these organizations better prepares them for the types of employment opportunities they are likely to encounter after graduation. Students routinely report having their goals and aspirations changed by their work with local community agencies. Most students never envisioned working with a not-for-profit, but after their internship experiences, they are often quite interested in pursuing such work.

Working in these transitional or undefined workplace cultures, though, has its challenges, as we learned with @SEA program. One challenge of internships in smaller, not-for-profit organizations is a lack of clear responsibilities for interns. Although each site has its own history, that history may not be available to students. Smaller organizations also may not have a clearly established workplace culture or the organizational culture is changing in response to economic realities (different constituencies served, fewer volunteers or employees, different funding sources, and so on). Therefore, students play an important role in actually inventing, establishing, and cultivating a workplace culture rather than just assessing or learning an established identity.

Inventing a workplace culture in a networked economy requires interns to stretch their rhetorical abilities in ways previously unimagined. The @SEA interns were put into a "dividual" position of serving in several roles at once, a task often confusing for them because it contradicted the workplace logic they expected. The interns were literally at sea, unmoored from a familiar grounding. But we might propose another way of looking at the situation. Although we can think of this experience as forcing the dividualization of the interns, we can also think of it as a complex, adaptive system in which interns were able to invent roles and structures. Byron Hawk (2004) proposed post-*techné* as "the use of techniques for situating bodies within ecological contexts in ways that reveal modes for enacting that open up the potential for invention, especially the invention of new techniques" (p. 384). The @SEA experience provided a situational context in which interns invented new working environments and

roles for themselves. In a sense, then, the experience provided more agency for the interns than they would have experienced even in a postmodern model of internship. Following Heidegger, Hawk explained that *physis* is a source of agency for *technê* (p. 380). Using Janet Atwill's metaphor of a ship's navigator, Hawk explains that

The navigator does not have mastery over *physis* but is carried along with it, works in relationship with it. Paradoxically, the navigator works against, but alongside it. *Physis* is the ground, or the conditions of possibility, for the helmsman's art (*technê*), not an object over which the subject has mastery via technique. The navigator's technical skill does not necessarily change the sea but allows him/her to operate coresponsibly within it. (pp. 381–382)

One challenge of inventing a workplace culture is deciding how to support the interns in the course. Course readings are especially difficult because few texts on internships exist. A prominent text for interns, *Writing a Professional Life* (Savage & Sullivan, 2001), contains narratives by beginning technical writers in large organizations, but those writers are master's-level students or have prior professional experiences. Thus, this text is not particularly useful for interns working at small not-for-profits or interns inventing new workplace environments. With a lack of sufficient texts, we were forced to cobble together some outside readings along with intense discussion, writing opportunities, and individual guidance to help students succeed in their internships. Those readings worked across the courses to educate all students involved. For instance, the first assignment was to read books on the history of Tippecanoe County, TCHA, and other historical sites and convey that knowledge to the other students, establishing them as semi-subject matter experts. Similarly, we discussed the ideas outlined in Pat Sullivan's (1998) "Into Print, Into Webs: The Consideration of Visual Rhetoric for Print and On-line Philanthropic Documents" to learn the specific constraints of web development for not-for-profits.

One particularly useful writing activity required that, every other week, interns respond to a set of detailed questions about their workplace experience. These "worklogs," as they are called, incorporated questions that asked students to think about the organization's place in the community, its stakeholders, its clients, along with other issues that invited students to examine the community network in which their internship site was positioned. Students also used class time to work together on their @SEA projects and to receive feedback from the graduate student supervisors. These writing opportunities allowed students to reflect on their experiences in this emerging workplace structure.

Leadership as Professionalization

As described above, @SEA experience offered the undergraduate students opportunities to develop their professional skills in a “real-world” environment. @SEA also provided a unique opportunity for undergraduate students to take positions of leadership by designing projects and leading peers to complete projects. Additionally, it also offered the graduate student internship supervisors an opportunity to extend their professionalization. Specifically, in their role as intermediaries among the interns, the @SEA faculty, and the TCHA administrator, the graduate student supervisors helped interns develop a richer understanding of how opportunities for leadership emerged within internship environments. This section investigates the opportunities available to the graduate students who worked with undergraduate interns in the @SEA program.

Theories of Rhetoric and Composition, English 470, was team taught by an experienced faculty member and a graduate assistant who assisted in providing class lectures on rhetorical principles, leading group discussions, and implementing course technologies integral to the @SEA projects. During the early stages of the course, we delivered course content in a lecture and workshop format, and students learned the material to be implemented later in the semester. Borrowing from Susan Katz (1998), early instruction could be described as occurring in a “content problem space.” More specifically, the class was designed to enhance students’ knowledge base regarding general rhetorical principles and professional writing theory. What was noteworthy about our early work in English 470 was the students’ perception of what we as instructors were trying to achieve. Namely, we were attempting to establish the @SEA program as a unique learning environment, an experience that did not replicate the assumed hierarchical structure of the traditional workplace that students expected. Thus, the goals of the @SEA program were in conflict with student perceptions and enactments of traditional student roles as passive learners consuming bounded knowledge. In discussions regarding the progress of the @SEA projects, the faculty and graduate student supervisors noted their concerns with this development, and in response, decided to position the graduate students less as co-instructors and more as advisors or mentors.

Graduate student teachers also mentored four @SEA interns each, and it was their responsibility to track the interns’ work as project managers and help undergraduates administer their work as it related to production and personnel issues. At this point in the semester, the @SEA interns had “hired” (see below) a team of classmates to complete the interns’ selected projects and were moving into what Katz (1998) described as the “rhetorical problem space.” Namely, as interns began directing their projects, they were beginning to put into practice

the accumulated knowledge and rhetorical skills they had been developing as professional writing majors at Purdue University. What stood out during this phase was the manner in which the interns enacted their role as project managers. Specifically, when performing as team managers, the interns generally took on a “top-down” or hierarchical character. “Performing” is crucial here as supervisors report witnessing the interns try to play the role of “leader.” For example, when presenting their project plans to recruit class members to their teams as well as when directing team meetings, their choice of language and the overall tone of their presentations seemed to reflect what they thought a leader should look and sound like. In each instance, the @SEA interns presented their projects as if they were looking for people to fill predetermined slots attached to specific tasks, rather than looking for people who could make contributions beyond their predetermined roles and enrich the team environment.

As graduate students witnessed the interns perform as project managers, they became concerned with the manner in which interns addressed their peers. Specifically, some of the interns took on a rigid, no-nonsense management style and put on an adversarial persona. Upon reflection, it seemed the interns merely were adapting their management style to models they had witnessed in their lives, such as parents or teachers, but also pop culture icons such as Donald Trump on *The Apprentice* or Gordon Ramsay on *Hell's Kitchen*. In adapting these models, the interns positioned themselves as employers to their classmates. Thus, when they tried to direct action, they latched onto the most extreme understanding of how authority operates in a workplace. One example is that the interns possessed the right to hire and fire their peer workers. Even though this authoring was not the only form of responsibility or authority they were given, it was the only one that fit their preconceptions of what the exercise of authority looked like in the workplace. The fallout from such positioning was that it obviated the need for the interns to establish a professional, managerial ethos. They simply were crowned as managers and began wielding a level of authority and power over their peers to which they were unaccustomed. Some of the interns' classmates were resentful of this management style, which ultimately hindered group progress on projects. Once the interns began to see the shortcomings of an authoritarian management style, they began trying alternatives, most notably by allowing their project members increased freedom in directing their own work. Though the interns initially struggled with giving up some authority, an immediate benefit of trying this new management style was that it allowed them to see their projects in a broader, more connected way. That is, rather than seeing each team member as an isolated individual completing an assigned task, the interns were able to take a step back and evaluate their teams as the whole, recognizing the ways

different parts were linked. Ultimately, from this perspective, they were learning how to manage work in a nonhierarchical or flattened work environment. To help these interns think through managing in these types of professional settings, supervisors began conferencing with them to discuss their management practices. In the conferences, graduate faculty played the role of devil's advocate, questioning the interns' reasoning for pursuing a particular course of action as project managers. The intent in these instances was not to undermine the interns' decision-making processes, but rather to help them think about and develop alternative courses of action for managing issues that arose with their projects.

During individual conferences with the interns, graduate instructors began developing a different understanding of what was at stake for the interns in the @SEA project. Originally, faculty assumed the @SEA project would help the interns develop important workplace skills and practices, and generally, the interns were achieving this goal. However, in assuming the role of project managers, we soon realized that the interns were developing something more valuable—leadership skills. What was frustrating as the interns' advisor and mentor was that the interns did not recognize this attendant benefit of the @SEA program. A reason for this lack of awareness centers on the nature of the @SEA program. Specifically, unlike a traditional internship, the @SEA program lacked a traditional organizational context in which the interns worked. That is, the interns did not travel to a professional office each day, sit at a desk, report to a manager, and complete quantifiable tasks for managers. Rather, they conducted the majority of their work in the classroom or at other campus locations, and thus, the @SEA program maintained an institutional or educational component with which the interns were familiar. As a result, the interns initially viewed their project work like any other assignment, something they needed to "get right" rather than viewing it as something that needed to address the rhetorical needs of their client, the TCHA. Ultimately, this lack of a traditional organizational work context for the @SEA interns led the interns not to recognize the "organizational problem space" (Katz, 1998, p. 423) in which they operated during the semester. Using Katz's words, the interns did not see themselves as "deal[ing] with organizational relationships and outcomes," but rather as responding to a class assignment.

In describing the interns' inability to recognize the "organizational problem space" of the @SEA program, we do not intend to suggest that the interns failed in their internship experiences, but rather, as signaling a shortcoming in the way that internships are positioned for students. That is, programs tend to focus their descriptions of internships as professionalization opportunities where students will obtain hard, recognizable, quantifiable work experience. Namely,

students will have opportunities to do real-world work and create documents and materials that the students can include in their portfolios. Although this type of experience is important for interns, a consequence of such positioning is that they come to a limited view of professionalization. Specifically, they see professionalization as tied to hard or quantifiable work and thus focus their efforts on perfecting that type of work. Ultimately, in limiting their focus, interns fail to recognize other nonquantifiable professionalization opportunities such as leadership development in their internships. As the @SEA interns' advisors and mentors, we witnessed an initial inability to recognize leadership as an important, professional skill they could develop. At the beginning of the semester, leadership for them was simply a matter of directing or dictating their employees' actions to achieve or complete a final, quantifiable or material product for their client. Over time though, the interns began to see leadership more broadly, and more importantly, as something integral to their professional development.

Regarding graduate student development toward becoming professional scholars during the @SEA semester, we turn to the work of Ann Austin and Benita J. Barnes (2005) who argue that "what doctoral students learn in graduate school will affect how they do their work as faculty members" (p. 288). Though this claim is obvious on its face, this experience as a supervisor positioned the graduate students to rethink how they would present internship and service learning opportunities for students. Namely, the worksites students will enter are much different from those in the recent past, especially in that management structures are more flattened. Internship and service learning sites at the local level typically reflect this flattened structure, and students ought to be prepared to enter those worksites and know how to discern leadership opportunities therein. Sustainable community engagement will depend on student ability both to recognize these leadership opportunities and assume the role of a leader in rhetorically sophisticated ways. A project like @SEA offers an effective model for preparing students in this manner.

Integrating Curriculum Innovation

English 420 Business Writing is a service course offered by the Professional Writing program open to all majors. This section reports the experience of one of the graduate student instructors who brought the @SEA experience into the technical writing service classroom.

The final assignment in English 420 is typically a community engagement project where groups of students in each class work with a local nonprofit agency or small local business to produce documents for them. Although not originally intending to recreate @SEA, upon reflection I can see

how I implemented lessons learned during the @SEA semester in my community engagement assignment for English 420. The @SEA semester also made it easier to see the limitations of the typical single class, single project formula for service learning projects.

Instructors handle the English 420 service learning assignment in a number of ways. Some choose one client and have teams of students complete versions of the same product; the client selects the version she likes the best, and in some cases, the group that produced the chosen item earn the highest grade on the assignment. Other instructors will locate a different client for each group, but in many cases, student groups are charged with locating a qualifying client on their own. These models mimic the classical internship model. I located a single small business with a variety of project needs for my class. The company was a locally-owned fitness center whose owner needed various documents redesigned such as a new member packet, brochures for various fitness classes, a trifold informational brochure, and suggestions for improving the company's website. This single business with an assortment of projects resembled @SEA's arrangement with the TCHA. Although this project centered on a small business rather than a not-for-profit, in a small community such as ours, small businesses need the expertise and assistance of the local university. At Purdue, community engagement and service learning are closely intertwined; both actually fall under the auspices of the same office. Thus, work with small businesses can sometime emulate service learning.

Because I allowed students to negotiate group membership on a previous project, I decided to assign them to groups. I explained that usually they would be collaborating on workplace projects with fellow employees, and thus their experience would emulate workplace experience. When creating the groups, I took into account such factors as the personality, work ethic, and drive of the students as revealed in their previously completed assignments. I was aware that some students had taken advantage of their previous group, and this demonstration of a poor work ethic concerned me. Grouping those few underperforming students allowed me to give them a lower stakes project that required less interaction with the client; this is similar to what happened during the @SEA semester, when the more motivated students were selected to interact with the client.

Similar to how other teaching assistants and I started our work with TCHA, I met with the owner of the company at the start of the project. The owner was a graduate of Purdue and had previous positive experiences collaborating with Purdue students; in fact, his current business logo had been designed by a Purdue student. He stated that he wanted to help students learn how to work in a real world environment in exchange for their work on his projects—a relatively benign attitude found in most internship relationships and one that lines up with the

traditional internship described earlier where it is expected that discrete job skills will be taught. We met on a Wednesday and arranged for the client to speak to the entire class the following Monday. I left with sample documents for each team.

In my relationship with student groups, I attempted to establish a similar relationship that I had with the @SEA students, where I was in more of a management rather than teacher role. Much as a manager communicates with staff, I gave each team a memo explaining their broadly defined project and outlining due dates. I encouraged them to start by conducting basic research on the company's website or possibly taking a tour of the facility, but they were cautioned to be respectful of the client's time. Each group was left to determine group leaders, work styles, and project specifics.

During his presentation, the client provided information on the club's facilities, local competition, his vision for the business, and budget limits. I asked a couple of questions to guide the discussion, although I was hoping that the students would take the lead in this area. The English 420 students' apparent reticence was a contrast to the enthusiasm of the @SEA students, who came prepared to talk to their client at TCHA and not merely listen. It was another example of how students are accustomed to pseudotransactionality, as Spinnuzzi (1996) described student relationships with clients and teachers.

The next phase required each team to craft a proposal detailing the scope and the specifics of their projects. The primary audience for this document was the client, but when I reviewed the drafts there were two surprises. The team asked to redesign a new member welcome packet was counting on the client buying a new color printer, something the client had made clear he was not able to do. Additionally, the team asked to conduct research about social networking had misinterpreted those instructions to mean redesigning the client's website. As the instructor, I had more authority to intervene here as well as an obligation to maintain a level of quality for the client. But my experience with the @SEA internship did help me learn when patience is appropriate and when intervention is required. It was a challenge to guide them without being overly directive, so I made suggestions that required them to reconsider the information the client had presented to the class and reduce the purchase of a color printer to a suggestion, with appropriate purchasing information to be provided if it was to remain in their project's purview. This approach was not how we addressed a similar situation in the @SEA project that allowed students more latitude with their projects. One @SEA team was quite attached to their vision to create a storybook for young children, even though this project was only mentioned in passing by the TCHA director. This was a risk that the @SEA project was able to take, but the English 420 class was not.

One key way that my relationship with the @SEA interns differed from my

relationship with English 420 students was how I evaluated student performance. The @SEA students received two evaluations from me, one at midterm and then at the end of the semester, but I was evaluating broad areas and skills, not assignments and coursework. At first, this method may have been intimidating for the @SEA interns; in fact, they seemed to expect that only the instructor of record would be evaluating them, not the teaching assistants. Evaluating skills in this way was both challenging and liberating. As a teaching assistant, I found it challenging to observe and take note of how the @SEA interns were showing skills like leadership and initiative. Simultaneously, my experience was liberating in that I wasn't constrained to solely evaluate their writing. Many times, effort and growth on the part of the student cannot be recorded if an instructor only remarks on the writing at hand, as in the case of an ESL student, who may be investing a great deal of work and making progress, but may still have some structural issues, I learned how to enact holistic evaluation and found myself striving to integrate this new awareness into my own class. In English 420, I still needed to assign each student a grade based primarily on the final product, but I was sensitive to more variables in my evaluation.

At the end of this service assignment, the client wrote a letter to the director of the professional writing program noting his positive experience with the class. Yet, I do not feel I was able to deploy many of the more successful or interesting aspects of the @SEA semester into the final project of English 420. Johndan Johnson-Eiola (2004) urged professional writers to reposition their roles from one of support to that of symbolic-analytic work. Symbolic-analytic workers "possess the abilities to identify, rearrange, circulate, abstract, and broker information" (p. 182). This new role will require professional writers to acquire a wide range of skills in areas beyond writing. He noted that

communicators cannot focus simply on applying simple, universal principles to documents but must instead begin a recursive project of expansion and contraction, in which they investigate concrete local contexts and, in doing so, think about the broad projects in which those users are engaged. (p. 185)

To prepare technical and professional writers for this sort of work, Johnson-Eiola named experimentation, collaboration, abstraction, and system thinking as four key areas on which their education should focus. The final project of English 420 enabled students to dabble in some of these practices. For example, the English 420 groups conducted usability studies on their products (experimentation), and because they worked in groups, they could not escape collaboration. These students got a sample of real world work and ended up with documents that could be included in their portfolios. The structure of the

@SEA enabled students to get more thorough practice in all four of these areas and more experience doing symbolic-analytic work.

Conclusion

By creating a common space for work, inquiry, research, and community building, our Semester @SEA sought to create commitment and attention to community projects that cannot be addressed during regular semester structures where students are in unrelated and unlinked classes. Semester @SEA reverses the classroom-centered structure of the curriculum, even if just for this final advanced semester, to focus student attention on local community issues. These challenges can be addressed by building student confidence and expertise as well as providing opportunities to engage their communities. Faculty were recruited to teach each of the classes that formulate the Semester @SEA program due to their willingness to more flexibly accommodate projects of community interest whose scope is beyond that of regular classroom structure, and due to their expressed interest and expertise in community engagement. Collaboration here was key; one of the most significant personal results was the development of more collaborative pedagogical approaches at the program level among both faculty and graduate instructors.

As a result of @SEA, our work with TCHA has extended to other classes, where the relationship has been allowed to grow. TCHA hosted a professional writing intern the following year after the @SEA program, and that intern had a successful experience largely due to the intensive, reputation-building work that the @SEA students did with the organization. In the spring of 2010, a graduate course in archival theory, co-taught by Professor Bay, worked intensely for TCHA, and in the summer of 2010, TCHA hosted a graduate intern who continued the work of the archives class. In our assessment of the program, students learned how to intensely work with one client, but we have also learned that a programmatic relationship with a community partner is one that must grow over multiple and varied experiences with students. As such, the assessment of such a program cannot occur only at the end of an experience, but should happen over a longer term. For example, while we received an enthusiastic assessment of the @SEA student work from TCHA's Board of Directors at the end of the semester, and we assessed the students' work according to class requirements, it was only this semester in Professor Bay's work with the organization that we discovered what worked long-term. One of the @SEA exhibits, for instance, was removed from the Web after two years because of a complaint of inaccuracy from a board member. Similarly, it was discovered that the TCHA website had utilized the @SEA student web design, but in a different way from what we had envisioned. One conclusion we have drawn from these

revelations is that end-of-the-semester evaluations of such community-driven projects are not necessarily as useful as assessments that happen over the long-term. Perhaps part of this realization is that the instructor has the opportunity to develop a closer relationship with the community partner over multiple courses, so that the community partner's voice shows up in new ways (see Stoecker & Tryon, 2009). And of course, those long range assessments cannot happen without a sustained relationship with community partners.

Finally, we do not offer @SEA as a model to emulate, but as a case study based on a desire for change with an accounting of resources brought to bear on the context in which the program exists. Our goal has been to articulate the conditions of innovation as well as to marshal resources that made the program possible. We assert that similar resources exist, although scattered and sometimes camouflaged on most campuses, even in challenging economic times. The first step toward realizing positive change is taking stock in and articulating context, followed by identifying potential partners and collaborators. Following the steps outlined here as if it were instructional would be a mistake; rather, as Sullivan and Porter (1997) argued in *Opening Spaces*:

This notion sees methodology as heuristic rather than a priori determining; in this view methodology intersects with and is perhaps changed by practice; it is more than simply a formula used in the course of reporting on practice. (p. 46)

As professional and technical writing programs continue to emerge in the new millennium, we wish to call attention to this distinction between reporting and prescribing. While reporting our experience, we do not seek to offer a roadmap, but rather a travelogue. We encourage others to take similar voyages, prepared with their own goals, and return prepared to narrate their own stories, articulating their own unique programs and innovations.

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Writing Studies as Grounds for Professional Writing

The Major at the University of Minnesota Duluth

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Abstract. The Writing Studies major (with emphases in Professional Writing and in Journalism) at the University of Minnesota Duluth marks a curricular innovation. This article traces the intellectual arguments that defined Writing Studies as one of the disciplines defined by its object (akin to American Studies, Women's Studies, and so on). The object of Writing Studies at UMD is writing, defined as a practice, a tool for cognition and social action, and a force for sociocultural change. These arguments are manifest in the core curriculum of the major (16 credits across four years of student coursework) and serve as grounds for the Professional Writing curriculum. That Professional Writing curriculum places exploration of and practice in writing in specific cultural contexts as the central skill set of a professional writing major rooted in the disciplinary home of Writing Studies.

Keywords. curriculum development, disciplinarity, independent program, Writing Studies

This article explicates the intellectual arguments for an emphasis in Professional Writing within the Writing Studies major at the University of Minnesota Duluth. Unlike similar majors at other institutions (housed in English Departments, typically), this major merges the innovations of the new disciplinary field of Writing Studies with the skills necessary to succeed in technical and professional communication careers. What emerges, then, is something new and different—a curricular innovation.

The emerging field of Writing Studies enabled us to redefine work within one of the disciplines defined by its object (akin to American Studies, Women's Studies, and so on). The object of Writing Studies at UMD is writing, defined as a practice, as a tool for both cognition and for social action, and as a force for sociocultural change. These arguments are manifest in the core curriculum of the major (16 credits across all four years of student coursework). These six courses, required of all majors in Writing Studies, represent the common core

of intellectual work in our department. In addition to completing this core, students select an emphasis in either Journalism or Professional Writing. Those emphases explore the theoretical, practical, and sociocultural issues of writing in two contemporary contexts (the media and the workplace). This article focuses specifically on the Professional Writing emphasis: the core courses and electives that define professional writing skills within our disciplinary frame.

This article, then, makes three moves: it articulates the institutional resources available for the construction of our major (because, after all, curriculum is local), it defines the core Writing Studies courses in that major, and it outlines the courses required and/or available in the Professional Writing curriculum, including the nature and content of those courses, especially as inflected by our foundation in Writing Studies.¹

The Local Context for the New Major: A Department of Writing Studies

This new major in Writing Studies was born from two decades of evolution into a freestanding Department of Writing Studies, formerly Department of Composition. The Department of Composition separated, administratively, from the Department of English in 1988. At that point, the split was amicable, rooted in a largely budgetary desire to separate the costs of the first-year composition program from the costs of the English major.

At the undergraduate level, the two departments developed independently. The split, rooted largely in administrative, rather than intellectual, reasons, resulted in an odd amalgamation of programs that grew increasingly diversified. Over time, the Department of Composition came to house the following programs:

- First-Year Composition (an integral part of the liberal education program)
- Advanced Composition (Professional Writing, courses that serve multiple majors for accreditation and professional development)
- An undergraduate minor in Information Design (a selection of courses in web design and digital culture studies)
- An undergraduate minor in Linguistics
- An undergraduate minor in Professional Writing and Communication
- An undergraduate minor in Journalism

¹ This article describes our program monolithically; in fact, it is a complex melding of interdisciplinary perspectives that will inevitably result in overlaps, distinctions, and disagreements in the meaning of curriculum. I played a key role in synthesizing materials, such as course proposals, for the aggregate major proposal, giving me a bird's eye perspective on the process and a role in fashioning a whole from the parts. But in the end, this article speaks from that limited perspective.

Some of these programs developed due to faculty strengths (minors in Linguistics and Information Design). Some programs developed due to collaboration with other departments (minors in Professional Writing and Communication were developed with the Department of Communication). And one program was inherited as a legacy (the Journalism program migrated from the Department of English to the Department of Communication to the Department of Composition).

At the graduate level, the membership in the MA program in English was composed of faculty in both the English and Composition departments. This arrangement was both fiscal (because the teaching assistantships remained rooted in the Composition program) and intellectual. Over the decades, the Department of Composition faculty would increase intellectual contributions to the graduate program.

We had achieved the dream: a freestanding department with autonomy in research, funding, and tenure decisions. In 2008, we sought to be renamed the Department of Writing Studies, a term that at once differentiated us from our past (as a department with a largely service orientation) and that better collected the various strands of research extant in the Department. At the same time, we were independent yet entangled, freestanding yet intersecting with other departments and university-wide curriculum. These were the raw materials from which the major in Writing Studies would be built.

The Disciplinary Context for the New Major: Writing Studies

To articulate our new major, we needed a project that could unify the diverse interests of the department—that could pull the course offerings and the faculty into a single project. This project was important both for the culture of the department and for its public face within the University. “Writing Studies” was that public face.

Writing Studies is structured like similar disciplines with similar titles, defined by a newly recognized and important object of study. Similar disciplines include American Studies, Women’s Studies, Ethnic Studies (African-American Studies, Asian-American Studies, and so on), Library and Information Studies, and Cultural Studies.

The appearance of these disciplines was an act of legitimating the object of study. It’s not that America was not the object of scholarly reflection prior to the rise of American Studies departments, but that its centrality as an object of study was established when those departments were established. These departments are also different from older, more traditional departments in

that they unite diverse methodological approaches in the study of the object. American Studies departments include literature scholars, historians, sociologists, art historians, and other scholars, united by their interest in a common object of study.

Our argument is that *writing* is now poised to take its place alongside those objects of study at the core of a discipline. In making that claim, we are dependent on and build on the ground broken by Charles Bazerman (2002), who claimed that “Writing Studies is the study of writing—its production, its circulation, its uses, its role in the development of individuals, societies and cultures” (p. 32). For our purposes, then, we understand writing in three ways. Each way shapes our curriculum and defines our claims to disciplinary status at Duluth. We research and teach writing as a practice (with its own theoretical grounds), as a tool (used in a variety of human activities), and as a historically embedded phenomenon that has transformed sociocultural structures.

The Study of Writing as a Practice

Our roots in composition studies mark our commitment to the study of writing as a practice. The major curriculum is built on the study and execution of the practice of writing. Positioned at the heart of the core curriculum is Introduction to Writing Studies (WRIT 2506). This course is both an introduction to theories of the writing process (rhetorical, humanistic, and social scientific) and an exploration of the writing process for students in the major. The theory of writing is explored through practice.²

The Study of Writing as a Tool

We research and teach writing as a tool. This perspective entails a complex hybrid perspective, combining insights from rhetorical theory and linguistics to argue that writing is a tool for cognition.

From rhetorical theory, Andrea Lunsford (2006) has recently thought think through this perspective of writing as well as articulated the ways in which writing is a technology for thinking. According to Lunsford, writing is

a technology for creating conceptual frameworks and creating, sustaining, and performing lines of thought within those frameworks, drawing from and expanding on existing conventions and genres, utilizing signs and symbols, incorporating materials drawn from multiple sources, and taking advantage of the resources of a full range of media. (p. 171)

² This course was developed by Juli Parrish (PhD, English, University of Pittsburgh), an accomplished scholar and teacher of diverse forms of writing practice from professional writing to the amateur writing (fan fiction) that is the core of her research project.

Lunsford provides a fresh articulation of the key insight that writing is a tool for thinking. From collaboration with faculty in Linguistics (also housed in the Department of Writing Studies), we understand that the features of language map onto the processes of mind. Linguistics is therefore understood not just as the study of language as spoken practice (the perspective of sociolinguistics, a perspective that has been a part of composition studies since the 1970s). The core curriculum includes a course (LING 2506 Introduction to Language and Writing) that helps majors in Writing Studies connect diction and syntax to critical thinking and cognition.³

Writing and the Development of Human Societies

Writing has led to immense sociocultural change. We see this claim in the works of early scholars of literacy in the ancient world (Havelock, 1986; Chaytor, 1945; and Ong, 1982) who noted the transformative power of the written word in ancient Greece. We also see this claim in the works of media ecologists like Elizabeth Eisenstein (2005), who noted the transformation of Renaissance culture after the development of printing; Benedict Anderson (1983), who connected printing technologies to the development of nation states; Harold Innis (1986), who connected those same printing technologies to the development of empire; and Bolter and Grusin (1999), who explored the implications of online writing for an “electronically constituted society” at the turn of the twentieth century. Today, we find writing in politics, corporate life, journalism, education, online communities, photocopied zines on sale in record shops, and scrapbooks that map the lived experiences of families. Writing is embedded in these human activities and, in some cases, is constitutive of these activities.

Our curriculum reflects both the historical consciousness that stems from these important precedents in media ecology studies and a firm grasp of the contextualized nature of contemporary writing. Undecided students enter the major through a liberal education humanities course, Literacy, Technology and Society (WRIT 1506), which traces the social impact of writing on human sociocultural institutions.⁴ In exploring the complexities of the contemporary context, Media Law and Ethics (JOUR 3700) explores the current context for writing practice: issues of free speech, intellectual property, and the place of writing in contemporary legal and professional institutions. (The lower division core courses were the subject of a reflective essay in *Composition Forum*, vol. 21, Spring 2010.)

³ This course was developed by Chongwon Park (PhD, Linguistics, University of Illinois), a theoretical and computational linguist.

⁴ This course was designed by noted Walter Ong scholar Thomas Farrell, who taught courses in both Writing Studies and Cultural Studies prior to his retirement.

From the Foundation of Writing Studies: A Major in Professional Writing

From this foundational core, outlining for students the object of study (writing) from three fundamental perspectives, the major proceeds to advanced study of writing in context. Students explore the way that writing as a practice changes as the context for writing changes (for example, as students move into networked workplace environments). They explore the diversity of ways writing can be used as a tool as writers change contexts. And, they explore the ways writing continues to play a role in defining contemporary human institutions. This exploration begins with four core courses and continues across four elective courses.

At the core of the curriculum is the professional writing course at the junior/senior level (designated as an advanced writing course for many disciplines). This course introduces the contexts, strategies, and practices of workplace writing. Students select from courses focusing on writing in engineering, the social sciences, the sciences, the human service professions, and the arts, studying the context of writing from within a particular profession.

Explicit study of the interaction between “Writing and Cultures” (WRIT 4200) occurs in the course by that same name. In this course, literacy is studied as a component of a diversity of cultural backdrops: from rural (Shirley Brice Heath’s *Ways with Words*) to urban settings (Ralph Cintron’s *Angel’s Town*); from professional (Dorothy Winsor’s *Writing Like an Engineer*) to virtual settings (Henry Jenkins’ *Convergence Culture*). Building on the historical perspective of writing in human cultural institutions established in *Literacy, Technology and Society*, this course furthers exploration of contemporary sociocultural communities and creates more versatile writers across those communities.⁵

By exploring the relationship between “Visual Rhetoric and Culture” (WRIT 4260), students move beyond maxims for efficient visual communication that typically come packed into textbooks. Students enrolled in this course recognize that we live, work, and play in a variety of visual cultures. In that sense, our strategies for visual communication must go beyond effective software usage for efficient displays of information; it must assess the cultural norms for visual display. Then, as we expect effective professional writers to write with a sensitivity to the context of language use, we also expect effective professional writers to communicate visually with the same sensitivity.

Finally, the course “Research Methods for the Study of Writing” (WRIT 4300) places students in positions as critics and consultants, assessing writing in context. Students explore writing (as practice, tool, and sociocultural force) from the

⁵ This course was developed by Kenneth Marunowski (PhD, Kent State University) and reflects his enthusiasm for and expertise in the study of writing in and across cultures.

diversity of research perspectives in the department: qualitative, quantitative, and humanistic methods of research. These advanced tools for reflecting on the practice of writing in context helps move students closer to the ideal of the reflective practitioner.

The elective curriculum, in the meantime, takes advantage of the immense strengths of the Journalism curriculum—a sophisticated exploration of multiple media (broadcast, print, and, new media) for use in a variety of public writing contexts. These electives include the courses Reporting and Writing, Copy Editing and Layout, News Photography, Community and Journalism, and History of American Journalism. The elective curriculum also takes advantage of courses in linguistics of use to professional writers, including Introduction to Syntax (for advanced study of the relationship between language and mind) and Sociolinguistics (for the study of language variation across human communities). Finally, electives also draw from advanced courses in professional writing (Introduction to Grant Writing and Project Planning) and information design (Document Design and Graphics and Web Design and Digital Culture) and a seminar in The Rhetoric of Popular Culture—an array of courses that continues the exploration of writing from our three perspectives.

All students complete the curriculum with the course New Media Writing (WRIT 4250), which pushes students to explore the transformations in writing that occur within the new media environment, and with a one-credit portfolio preparation that pulls their various projects across each class into a clear demonstration of their versatility as professional writers.⁶

A Major in Professional Writing Can Be a Technical Writing Program

Readers of *Programmatic Perspectives* might well wonder whether this major constitutes a true technical communication major, or whether the varieties of writing in which students engage are too diverse to count as technical communication, or whether the focus on writing in the curriculum takes away from the traditionally interdisciplinary work of technical communication majors. But we find that our curriculum remains in line with the seminal definitions of technical communication programs, including the definition advanced by Wahlstrom and Meese (1988):

The best of the new programs offer more than instruction in writing, choosing to see technical communication as a broader field requiring training in visual and oral communication; skills associated with printing, graphic design, and publication management; information management; communications technologies; and often laboratory

⁶ The one-credit portfolio experience derives from the research expertise in portfolio assessment of Department Head Jill Jenson (EdD, University of Minnesota).

or production experiences in nonprint media, including video. (p. 33)

Although formal training in oral communication remains the domain of Communication Studies at UMD, it is clear that visual communication, communications technologies, and information management are essential to the required curriculum in Professional Writing. Meanwhile, our colleagues in Journalism bring to the table a highly refined pedagogy for publications management and production experiences in audio, video, and new media platforms. The major in Writing Studies achieves the goals of the major in technical communication, built from a slightly different pool of resources.

Conclusion

The core curriculum in Writing Studies reflects a new public face for the department—a distinction between the old Department of Composition (filling a primarily service role in the institution) and the new Department of Writing Studies. The emphasis on writing as a practice, a tool, and a force for change in human communities defines Writing Studies in our intellectual context.

A major in Professional Writing in the Department of Writing Studies is built upon a three-part foundation. The student experience is enhanced in particular by the advanced study of writing in professional contexts. It is complicated and enriched by reflection on and practice in generating texts within the diversity of print and visual cultures, including formal study of research methods for the study of writing in context. These courses, taken in tandem with a sophisticated array of electives in both Professional Writing and Journalism, achieve the goals typically set for a program in technical communication. Whether this model advances substantially and is transferable to other institutions or contexts is an open question and one we look forward to exploring.

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Some Thoughts on Emerging Programmatic Phenomena

Professional Certification and Online Technical and Scientific Communication Programs

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Discussions of programmatic and professional standards and certifications have been a recurring element of the CPTSC conversation. My position on such matters has always been to move with what I perceived as the prevailing perspective of the organization's leading voices—that protecting local values and programmatic diversity is more important than identifying and codifying universal standards. In light of our programmatic variety and struggles even for consistent nomenclature, certification seems on first glance to be potentially limiting of possibility, even exclusionary. I do not mean to equate certification of individual professionals with the assessment of whole programs; I do recognize the linkages between them, however.

Recent events inspire a return for me to such topics. Although the thoughts gathered here remain exploratory, they are steps along a more carefully considered path than I have walked before. If there is a call to action here, it is this: the general membership of the CPTSC must join this discussion, rather than leave it for consideration by the few who have so far lead the way, or by other organizations entirely.

Several events converge for me on this professional moment, but three events are key: my participation in the launch of a new academic department and subsequent election to the position of Chair for that unit; the emerging coherence of the long-developing Body of Knowledge project fostered by the Society for Technical Communication; and my consultation with a student seeking an appropriate online program at which she might complete her professional and technical writing degree. The first of these is significant, of course, given that the new department—Rhetoric and Professional Writing—is anchored by an undergraduate PTW program. As the coordinator for that program, I must be

proactive in building and maintaining the program's integrity for the good of its faculty, students, and graduates. But the other two events provide focus for this discussion.

Steven Jong's June article in *Intercom*—"A Monumental Day Dawns for Technical Communicators: Certification!"—reported that the Society for Technical Communication will implement during the next year a portfolio-driven certification system for the profession. Professionals will be evaluated in six areas: user analysis, document design, project management, authoring, delivery, and quality assurance (6). Although these competencies will be used to assess individual professionals, program coordinators ought to think strategically about certification.

The program I coordinate builds knowledge in all six areas of competency. However, we will highlight these areas during our upcoming assessments to determine where (if anywhere) we need to place greater emphasis. Regardless of the long-term effectiveness of this STC project, I can acknowledge the value of a proposed standard that has been developed by a representative element of my greater professional community. The framework for certification is broad enough that I do not fear it alone will demand that I sacrifice any local values to remain aligned with the core competencies. Of course, I need to see the specific criteria by which professionals will be evaluated within those broad knowledge areas before I can determine real impact with any confidence. Nevertheless, this is the kind of standard my local university administrators prefer to use as a baseline for judging the merit of academic programs at my home institution.

The difference between the first two events I have considered here and the third is that my student consultation yielded surprises for me. Perhaps it should not have, but nonetheless, I was not prepared for the results of researching online programs. This moment is straightforward enough. A student from the undergraduate program I coordinate needed to move before she could complete her degree. Because she cannot predict how long she will be in residence for any program in which she might enroll for the short term, she asked me to review three online programs with her. None of the three are tied to established on-ground curricula; all three are online only. All three are promoted as technical writing or technical communication programs. All offered courses with appropriate titles, but with course descriptions that suggest little emphasis on writing, and significant emphasis on production software. (Further research would clearly be required to determine actual course content. I merely note that the courses and programs were advertised as technical rather than writing experiences, suggesting that such knowledge is not only appropriate but also very marketable.) The surprise, however, was that none of the three programs

listed a single faculty member with any obvious credential or professional experience of core relevance to the world of professional and technical writing. I acknowledge that this may be no more than a problem stemming from poorly executed program promotion, but I remain skeptical of the quality of these programs.

My review of online professional and technical writing programs reinforces the possibilities for professional legitimacy offered by the Body of Knowledge project and by professional certification. Graduates of well-designed programs would, we hope, be able to distinguish themselves from graduates of poorly designed programs. Such changes of professional culture take time to become integrated in daily practice, so only time will determine the level of success of this move by the Society for Technical Communication. My review of online programs perhaps has deeper implications as well for administrative work in general. I will note that each of the three online programs I reviewed only communicated emphasis in three areas of competence framed by the Body of Knowledge project—the same for all—document design, authoring, and delivery. None of the three explicitly identified emphasis on user analysis, project management, or quality assurance.

I am cautiously optimistic for the potentially positive long-term impact of the STC's proposed framework for evaluating professional and technical communicators. However, I feel compelled as well to propose a complementary stance for the professional community at large. Some who express doubt about the ethics and effectiveness of certification emphasize the policing function such processes can take on. Certification can be viewed as (and used as) a mechanism for exclusion. However, if the professional community and the professional cultures within which our graduates pursue their careers ultimately embrace certification, then that cultural transformation demands that the CPTSC consider how it might navigate this new reality. More specifically, what projects might the CPTSC promote to further elevate the overall quality of academic programs, and thus respond programmatically to this shift in professional culture?

The CPTSC has sponsored several initiatives to bolster the resources available to program administrators. The organization's support of programmatic research (through Research Grants), its building of administrative resources (through the Research Assessment Project), its expanding emphasis on participating in international discourse on program administration, and its backing of *Programmatic Perspectives* are but four such projects aimed at enriching the intellectual exchange about academic programs, their development, and their sustainability. Although the program assessment process remains underutilized by the community, it too offers local administrators the means by which they

might examine their efforts through the eyes of colleagues who represent the administrative culture in TSC. I hope we see continued growth and maturation of these initiatives in coming years. Any or all might provide appropriate fora for examining issues such as those I identify here.

However, such resources cannot replace face-to-face dialog. It is perhaps time for the CPTSC once more to reach out to programs who have not been recently represented or who have never been represented at meetings of the Council. With the steady creation of new programs, especially new online programs that do not grow out of established undergraduate programs, it seems there is a generation of program administrators emerging that likely has little sense of our community history, values, or intellectual engagements. The convergence of events I have explored here may provide appropriate exigence and opportunity for the community itself to grow, and if necessary, to evolve.

Author Information

Bill Williamson is Associate Professor of Professional and Technical Writing at Saginaw Valley State University where he serves as coordinator of PTW programs. He has taught writing and design courses (primarily with a technical communication connection) at Michigan Technological University, the University of Northern Iowa, and now at SVSU. In addition, he has offered through consultation a variety of workshops focused on job seeking, grant seeking, and various elements of technical communication. Bill has held assistant or associate editor positions for scholarly publications such as *Computers and Composition*, and the *CCCC Bibliography of Composition and Rhetoric*. His publishing projects include book chapters on program administration and cross-curriculum pedagogical design. He is currently developing a supplemental textbook for Pearson. Bill served CPTSC as Information Officer from 2000-2005. He now serves as co-editor for *Programmatic Perspectives*, the journal of CPTSC.

“Have Rhetoric, Will Travel”

A Tribute to Stuart Brown

Patti Wojahn

New Mexico State University

If any of you happened to look at the New Mexico State University departmental website over the past few years, you might have been struck by one professor’s list of specializations: “rhetoric and composition, rhetorical theory, creative nonfiction, business and technical communication, writing program administration.” You might have wondered about a person who could legitimately list expertise in each of these areas. Stuart Brown was such a person and more.

The introduction to one of the many collections Stuart edited with colleagues aptly describes the work of many in our field: “Rhetoricians study the ways people use language to construct knowledge and to do things in the world.” Yet Stuart’s contributions to both of these activities are immeasurable. As a person who studied the “ways people use language to construct knowledge,” Stuart was a dedicated instructor and administrator, teaching at all levels of the curriculum for two decades and directing the general education writing programs at NMSU for a full decade. Stuart co-edited nine collections and wrote over forty-five articles, book chapters, reviews, and technical reports in rhetoric, composition, and professional communication. Stuart believed in professional service and was recognized for his numerous contributions to national and local, academic and community-based initiatives. As can be seen in the many thoughts people shared about Stuart before his memorial, *Programmatic Perspectives* is a fitting site for reflections both on Stuart’s shaping of writing programs, writing courses, and writing program administration, and on how he enriched the lives of those affiliated with these endeavors. Stuart was immersed in the administration and work of writing programs for decades, and his influence remains active and engaged in the local and broader community, in academic as well as professional values.

In reviewing comments from Stuart’s family, colleagues, and friends, several themes about Stuart emerge, suggesting ways of being in the world that helped make Stuart a program director of consequence. First, Stuart possessed

a sense of humor, albeit a wry and dry humor, that allowed him to comment on the world in unique and memorable ways; second, Stuart was devoted to people and communities, academic and personal; and third, Stuart loved learning and passing on what he learned, which he did both widely and generously. To capture all of this requires multiple voices; therefore, multiple reflections are shared below in an attempt to highlight his contributions as they relate to us and our programs, personally and professionally.



Stuart Brown

First, Stuart's humor. Several weeks after taking over for Stuart as writing program administrator, I sent a warning to the teaching associates about a raging person headed their way. I described what the student was wearing, described what she was saying and doing, and explained that the police department wanted to be phoned immediately if the student's rage continued. A few minutes later, a 3-word email from Stuart arrived in my Inbox: "Having fun yet?" Having been in the position for the previous ten years, he knew. At the same time, Stuart was the type of professor that students could adore even while he pushed them toward their best work. One such graduate student made Stuart an ink pad with a stamp that said "So What?" – a question Stuart was known to ask when urging students to expand and clarify their work. I do not know if Stuart ever used the stamp on students' papers, but I do know that he continued to encourage students to write for true audiences, with real purpose, with sincere relevance. Colleagues and others from our field shared the following anecdotes about Stuart and his wry humor that surfaced even after his diagnosis with terminal cancer:

I last saw Stuart at the 4Cs/ATTW conference in New Orleans a few years ago. I had heard how sick he was a few months prior to that and certainly didn't expect to run into him at the conference. When I heard a familiar voice say "Hi Julie" at the gate, I was shocked! It was Stuart, and . . . he looked really good! After I collected myself and told him how sorry I'd been to hear about his health, he shrugged and said, "It gets me out of department meetings." – Julie Dyke Ford

Stuart was a realist who could laugh at himself. When I saw him a few years ago at 4Cs in Chicago he had already outlived his doctors' timeline. I told him I was happy to see him and in characteristic fashion he replied, "I know. I'm supposed to be dead by now." – Ken Baake

I roomed with Stuart at the AP readings for the last few years and will mourn his loss in a very personal way. When I greeted him last summer, I asked him how he was doing. "I'm dying," he said, as if it were a matter of common conversation. "C'mon now," I replied, "we're all dying." He responded, matter-of-factly, "But I'm dying SOON." That certain knowledge did not crimp his style: energetic, cheerful, witty, responsible. Models for living are all about us, but Stuart was that rare one, a model for dying. – Ed White

Commitments to people and to communities also marked Stuart's life. In the academic field and "in the field" of our New Mexico communities, Stuart was known as a master of "emergency rhetoric." Beyond his full-time career as scholar, instructor, administrator, researcher, and active university committee member, Stuart served his own home communities as a volunteer fire fighter, an emergency medical technician (EMT), an EMT instructor, and a grant writer seeking funding for equipment for fire fighters and others who save lives. I still recall his office being filled with many boxes of smoke alarms he had procured through a grant for distribution among people who could not afford them.

If asked, he would never admit to the levels of care and concern his actions revealed. Yet Stuart's actions spoke. When I was troubled by a night class student's death, Stuart waited three hours after work to walk with me from the classroom to my car—a quiet kindness that teaches softly and by example. As to what he claimed—or wouldn't proclaim—about his level of concern for others, the following examples of Stuart's commitments show he surely did not fool anyone.

I was told by my senior colleagues that I while I was doing excellent work as the writing center director, I needed to start working steadily on publications. Shortly after, Stuart asked me to join him and Teresa Enos on an updated survey of PhD programs in Rhetoric and Composition. I did. Later, he asked me to contribute a chapter to his WPA Resource Guide. I did that too. I also began to venture out on my own. When I left New Mexico State to move closer to my family in Texas, I did so knowing that it was Stuart who had prepared me to do so.

– Rebecca Jackson

Connected. Stuart could not go to a conference and actually make it to a paper or workshop. Not because he didn't want to, or didn't think they were valuable, but because he could not get through the halls without getting tied into conversations. Everybody knew of, knew, and wanted to talk with Stuart. – Chris Burnham

Memorial

I knew him for twenty years and considered him to be one of the most ethical professors on campus. He was never afraid to call out administrative shenanigans. He stood up for what was right and was a great friend. – Kenneth L. Hacker

When we talked last week at his house in Las Cruces, Stuart was still talking about projects he had in mind with the doctoral consortium to improve the status of our field and our teaching. – Stephen A. Bernhardt

His honesty, dedication, and wry sense of humor helped me make the transition from journalism to academia. I could tell he cared deeply about the students and department. As I recall, he also did volunteer work for the New Mexico rescue squad and approached that work with the same sense of service. He loved the mountains and the people and pace of life there. – Ken Baake

Stuart was also the epitome of a life-long learner. Besides his passion for education and emergency medicine, Stuart was a lover of the beauty of the natural world, especially of New Mexico's rich landscape. He loved learning from neighbors and others ways to improve and apply his carpentry skills and reportedly gained much from the dogs and horses he enjoyed raising with his wife Leslie. When our university experienced a number of alcohol-related deaths, he learned more about the problem and shared information and advice with the instructors who most likely interacted with the most students: first-year writing instructors. In this and other efforts, he noticed needs, learned about them, and addressed them in the best ways his own positioning could allow. Others noticed his love for learning and generosity for sharing that learning.

These characteristics come to mind when I think of Stuart: innovative, generous, connected. Stuart detected opportunities or needs while others were simply treading water, or complaining that something was wrong, that something needed to be done. How many times was he able to bring people together to work on projects not previously imagined? Many of his projects were dedicated or "special editions." He wrote on "Green Culture" when it was still a seedling. And all his rhetoric was "New Rhetoric." And to students his generosity was legend. How many did he invite to participate in projects that subsequently became their first co-authored publication?
– Chris Burnham

Memorial

Stuart seemed like a person who didn't want to be confined by one particular role or even discipline. His educational background reflects that of course, but I was struck by it repeatedly in conversations I had with him. I will never forget when I saw him while he was on his sabbatical and asked him how he was spending his time. He probably glossed over whatever brilliant book project he was working on to excitedly tell me "Tomorrow my neighbor is going to show me how to use dynamite!!!" I loved that he would share this detail and be so unabashedly excited about it. – Julie Dyke Ford

Our community has lost a great person and a top-notch educator. Saw him about a month ago at the DACC parking lot . . . returning from a class (Fire) that he was taking. He was a fighter. – Hiranya S. Roychowdhury

It is quite unusual to hear an engineer say that one of the most influential people in her life was an English Professor. But that's how I felt about Stuart. It is equally unusual to see a Business Administration and Economics PhD transcript with a minor area in Rhetoric. I have Stuart to thank for that (as well as the years of explaining exactly how this happened.) . . . [My vitae] is peppered with seemingly out of place publications with Stuart, as well as research that brought us to the most remote corners of the Navajo Reservation and from there, to the inner sanctums of the National Laboratories. – Linda A. Riley

[A week before his death], We reminisced about projects we had done together--and he spoke with a clear sense of the work remaining.
– Stephen A. Bernhardt

There is indeed much work remaining. In the final note from the *Rhetoric of Healthcare* collection, Stuart and co-editor Barbara Heifferon wrote about roles for rhetoricians in the health professions, suggesting a model for our studies across multiple disciplines: "Health care rhetoricians are positioned to make significant contributions both within and outside of the academy. Such engaged scholarship aimed at this specific locus not only contributes to the rhetoric of science, but revitalizes the study of rhetoric, especially as a situated practice. To come full circle and use those analyses to reconstruct the rhetoric of health care from scientific to a more humanistic and ethical one is the ultimate goal" (12).

With this as one of his many goals, it is easy to see why our writing program has dedicated our custom text, the *Paideia*, to its founder Stuart Brown. It was Stuart who brought the concept of "paideia" to the forefront of our writing pro-

grams. As Stuart used it, the term encompassed the education of citizens not so much with an eye to learning tools of a trade or career but instead with an aim to prepare people to be ethical citizens, to act justly, to make decisions through informed analysis, and to consider the communities in which they live. On his department website, Stuart posted the following: "Since discovering the study of rhetoric in my first year teaching composition at the University of Arizona, I've wanted a business card that reads "Have Rhetoric, Will Travel." Fortunately for us, Stuart did indeed do just that.

Stuart Brown

Stephen A. Bernhardt

University of Delaware

After completing his MFA and PhD at the University of Arizona, Stuart Brown spent his career at New Mexico State University in the English Department, teaching, researching, and administering writing programs for 20 years. I was fortunate to spend 11 of those years with him as a colleague, collaborator, and friend. Stuart was a fine, generous, gracious person. I miss him, and the field of composition will continue to miss him.

In his scholarship, Stuart, was above all, an editor, someone able to develop ideas for essay collections and coordinate the work of multiple authors to create volumes with solid integrity and value. I tried co-editing one such collection and found it such a headache that I vowed never again, but Stuart was good at it and our field is richer for his work. Stuart found ways to work with co-editors and sustain relationships that were important to him across his career, often with people he learned from and worked with at Arizona including Duane Roen, Theresa Enos, Tom Miller, Barbara Heifferon, and Shane Borrowman. The familiar titles of his co-edited collections have high resonance in our field: *Professing the New Rhetorics*, *Defining the New Rhetorics*, *Green Culture*, *A Writing Program Administrator's Sourcebook*, *Living Rhetoric and Composition*, *the Writer's Toolbox*, *The Rhetoric of Healthcare*, *Renewing Rhetoric's Relation to Composition*. Stuart never tired of editing: of working with writers, coaching others through his editorial skills, and nurturing relationships with publishers. That was his special gift as a scholar.

Many of Stuart's articles and book chapters focused either on environmental rhetoric or, importantly, on our field and the ways we teach and administer

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writing programs. Stuart had a highly attuned sense of professional ethics. He worked to bring respect to the teaching of writing, to see that programs were administered with integrity and that instructors were well prepared, compensated, and respected for the hard work they do. At NMSU, Stuart labored without pause to create a strong writing program that was responsive to interdisciplinary needs, valued within the department, and professionally conducted in all respects. He was a fierce advocate for the interests of graduate teaching assistants, and a sympathetic and supportive administrator who believed in treating all instructors fairly, whether they were full time or part time, continuing or temporary.

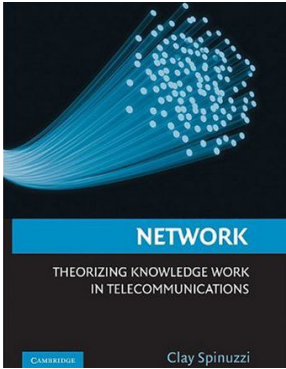
Stuart lived a life of service, enacted particularly in the ways he helped students be successful. He involved them in his work, created apprenticeships, and helped them develop their teaching and scholarship. He took the lead in consolidating information about graduate programs in rhetoric and composition, so students could choose wisely and so that the field would have an accurate understanding of the range and growth of our programs. He was a leader in the Consortium of Doctoral Programs, where work continues to gain appropriate recognition for composition and rhetoric programs and to coordinate the work we do across many campuses. Stuart was infamous at NMSU for his dark vision of the field of English studies, and he was always honest with PhD students about what he often saw as dim prospects for good tenure-track placements. He worried about the job market and overproduction of PhDs. But he never quit working on behalf of students, using his network of professional connections, encouraging their professional development, and working closely with them throughout their job searches.

Over several years, Stuart and I worked together on economic development projects in Arizona and northern New Mexico, forming teams with business and engineering professors to consult with pueblos and tribes. We spent long hours traveling, analyzing, meeting, writing, presenting, and reporting. He always had a slightly wry, ironic take on life. He could always see that people and goals and realities were slightly out of kilter. Life's ironies were a source of continual amusement to Stuart, and a slight smile typically played at the corners of his mouth. He was great company, a wonderful companion for rambling conversations down long highways with distant horizons.

To Stuart, it was all rhetoric, and he never tired of saying so. He didn't just mean argument, though he knew how deeply argument penetrates discourse. He meant rhetoric more inclusively, as the key to motives, to action, to ethical activity, to the construction of identity and community. His wry, ironic detachment was probably a reflection of his rhetorical take on life, on people, and on events; he enjoyed watching conflicts unfold and analyzing the play of motives, strategies, and outcomes.

Memorial

I was lucky to sit with Stuart a week before he died last spring. He was weak, enervated by the lung cancer that was claiming its due. But we laughed about recent events, and we enjoyed reminiscing about people and projects we had been involved with together. He told me of projects he was working on, of new initiatives on behalf of the Consortium, of ideas he had for new courses. He talked about our field, about rhetoric and composition, and he did so with relish, with a glint in his eye and a continuing sense of passion and commitment.



***Network:
Theorizing Knowledge
Work in Telecommunications***

Author
Clay Spinuzzi

New York, NY
Cambridge University Press
2008, 240 pp.

Reviewed by Joshua Prenosil

Purdue University

Graduate students struggling to understand points of distinction between Vygotsky's Hegelian synthesis and Latour's Deleuzean ontology will find Clay Spinuzzi's 2008 book *Network: Theorizing Knowledge Work in Telecommunications* very useful. Administrators of undergraduate and graduate technical communication programs may find *Network* equally useful, and not just for pedagogical reasons. *Network* applies theory to concrete situations of organizational growth that administrators can extrapolate to changing dynamics in their department, college, or university. In *Network*, Spinuzzi casts everyday situations in actor-network (ANT) and activity theory (AT) frames, shifting between the two with the skilled hand of an activity theorist comfortably steeped in Latourean ontology. Spinuzzi's book is not a serious ANT or AT investigation of the telecom industry, but its strengths are patent: readers seeking an introduction to AT or ANT, a thorough discussion of the philosophical underpinning of each theory, an informative cross-comparison of the theories, or a thoughtful application of each theory to a historical narrative will relish Spinuzzi's work.

Network depicts a telecom company rounding the technoindustrial apex of the 20th century. Telecorp (Spinuzzi's pseudonym for a Texas telecommunications company) is expanding faster than its infrastructure can handle. Legislative changes in the mid-1990s have provided it with access to its competitor's physical network. Emerging internet and voice technologies are expanding its

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business and private customer base, and the resulting growth has increased employee turnover as departments are created, expanded, and integrated. Because it leases network space from its larger competitor—BigTel—Telecorp shares information with a company it also vies against for customers. Expansion and an elaborately structured telecom industry force Telecorp to amass its employees at the border of interaction with its public and competitors. Telecorp is unable to form a “black box,” a coherent and contained mechanism that operates behind the curtain of industry (pp. 52–53).

Program administrators who read *Network* will likely recognize similarities between Spinuzzi’s Telecorp and contemporary local/regional learning institutions. Schools that once (and perhaps still) compete for students now share facilities, instructors, and courses to cut costs. Meanwhile, a “battered” US workforce is flocking to local schools in order to update skills and credentials. Undergraduates are staying in school longer to avoid job hunting, expanding the market for practical MA and MS programs. Spinuzzi never directly compares telecom and technical communication administration, but the dynamics that he describes present a familiar paradigm for administrators, instructors and students. Telecorp’s workers, “find themselves in a constant state of ‘metastability’... characterized by constant forging and testing of relationships” (p. 174). Workers must constantly update outmoded skills and associations to stay relevant to a rapidly-changing workplace.

Administrators at growing institutions may also recognize Spinuzzi’s “four disruptions,” the four characteristic conflicts that erupt in the wake of the rapidly expanding organization. At Telecorp, sales and customer service representatives quibble over mundane responsibilities. Sales and credit argue over whether a client is trustworthy. A manager threatens to sanction employees if they ignore a computer-based genre, and two departments use the same terms for different entities. Spinuzzi establishes these four disruptions early in the book as foils for theory discussion. He winds the theoretical threads of his project—Vygotsky, Engeström, Latour, and Bahktin—around the four conflicts, introducing the basic disagreements between AT and ANT as apologetics for their respective emphases. Spinuzzi juxtaposes the human-nonhuman symmetry of ANT with the remnant humanism of AT as he sets the scene for finer delineations of the two theories.

In Chapter 3, Spinuzzi develops the ‘God terms’ of his comparison in the most pedagogically friendly section of the book. Activity theorists, he argues, tend to view actions as *weaves*, movements of atomistic humans gaining competency. Weaves are based in conflict and subsequent, irreversible evolution that resolves the conflict. For activity theorists, “development precedes and underpins political-rhetorical interests” (p. 67). *Splicing*, the operative metaphor

for ANT, organizes phenomena in alliances of humans and nonhumans that continually form and end. For actor-network theorists, Spinuzzi posits, “political-rhetorical interests precede and underpin development” (67). Actor-network theory explains power relations as a consequence of a system while activity theory explains the system as an exercise of human power.

Telecom technology, Spinuzzi contends, creates a spliced environment. In that environment, “organizational, spatial, and temporal boundaries become less important than... fluctuating networked connections” (p. 144). At Telecorp, the seemingly simple act of ordering phone service creates a gamut of genre transactions that workers and technology perform in dizzying dispersals of customer information. Spinuzzi retraces familiar ground here, demonstrating the circulation of genres in organizations. He adeptly follows multiple genre substitutions as workers and machines exchange artifacts for operational resolution, adapting language practices in a rhetorical jungle. Spinuzzi shows that networks do not necessarily “develop;” they simply form and reform. Relations in the Telecorp network are always contingent and transformative.

Nonetheless, Spinuzzi posits that individual humans do gain skills and exercise agency. In Chapter 6, workers in a shifting environment use a variety of mediational tools to adapt to local circumstances. Spinuzzi describes the ways that employees use workplace lore, existing genres, and keen observations to acquire new skills. According to Spinuzzi, these skills are “supported almost wholly by informal, contingent ways of learning” (p. 189). Employees at Telecorp move across multiple departments and workgroups through self-training. Though Spinuzzi’s Telecorp is disorganized, workers make integral connections that allow the company to continue its knowledge work.

The most profound administrative implications of *Network* come in the final chapters of the book. Where industries are changing, Spinuzzi argues, the most important skills a worker can possess are not those that allow them to start performing a job immediately, but those that allow them to learn genres and praxes in novel circumstances (p. 202). Spinuzzi’s conclusions imply provocative programmatic changes: We should structure technical communication programs not to teach skills that students can plug into a priori job roles. Rather, we should teach students methodologies that prepare them to learn how associations and genres work at specific sites. Indeed, Spinuzzi argues, “Net workers need to become strong rhetors...they must persuade locals to show them the hidden passes that allow them to accomplish their work” (p. 201). Students above all need to learn how they learn, how to teach themselves, and how to learn from and cooperate effectively with others.

Spinuzzi builds an important narrative that may illuminate the dynamics in changing tech comm. programs and learning institutions. Further, Spinuzzi

explains the applicability of ANT and AT as he gently goads activity theory into developing more a comprehensive account of emergent phenomena. Spinuzzi repeatedly acknowledges that ANT and AT are productive for different purposes, and he grounds the discussion of those purposes in each theory's historical ecology. Spinuzzi's cross-comparison of AT and ANT is as helpful for its theoretical exploration as for its practical descriptions of organizational transformation. His book serves as a gateway to understand complicated theories and work structures as the "black box" of a once cohesive telecom organization opens for change.

Author information

Joshua Prenosil is a PhD candidate in Rhetoric and Composition at Purdue University, where he is writing his dissertation on the rhetoric and technology of social movements. Joshua is the co-founder and general editor of *Present Tense: A Journal of Rhetoric in Society* (<http://www.presenttensejournal.org>). He recently published an article, "The Children of Aramis," in the *Journal of Technical Writing and Communication* with Michael Salvo and Ehren Pflugfelder. His academic interests include public rhetoric, professional writing, actor-network theory, and speculative realism.

It's Time To Renew Your CPTSC Membership for 2010–11

To All Members,

Your \$20 Membership Fee for 2010–11 is Due by September 30.

Membership renewals for the 2010–2011 dues year, which runs from October 1, 2010 to September 30, 2011, are now due. Please take a moment to read the information below and submit your dues and updated contact information by the end of September to maintain your membership.

Who Needs to Renew: All Current & Past Members

What Are the Options for Paying:

Option #1. Payment as part of conference registration:

If you are attending the 2010 CPTSC meeting in Boise, your registration fee for the meeting includes and will cover your individual annual dues of \$20 for 2010–11, so you need not pay dues separately. Please note that all conference attendees must be current CPTSC members.

Option #2. Direct Payment:

If you are NOT attending the 2010 CPTSC meeting, please go to the CPTSC website and download, print, and complete the "Membership Application & Dues Renewal Form." Send the form, along with your check for \$20 made out to CPTSC, to CPTSC Treasurer, Karen Schnakenberg, at the address listed below.

What if I've Paid Dues Within the Last Six Months?

Dues paid between January and July 2010 were credited to the 2009-10 dues year, so even members who have paid dues relatively recently still need to renew now for the 2010-10 membership year. Be sure that the address includes "Department of English" so that the letter is properly routed.

What are the Benefits of Membership?

Membership in CPTSC provides full access to the CPTSC website and our new online journal, *Programmatic Perspectives*; qualifies individual members to apply for CPTSC research grants; and supports the organization's work in program development, research support, and assessment. Both individual and institutional members are welcome, and individual members are encouraged to suggest that their departments become institutional members.

How Can my Department Become an Institutional Member?

When you renew your own membership you might also consider asking your department to join CPTSC as an institutional member. **Institutional memberships** are \$100 per year and help to support our research grants and conference fees for graduate students volunteering at the annual meeting as well as CPTSC programming and assessment activities. An Institutional Membership Form is also available on the CPTSC website.

If you're unsure of your membership status, please contact

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Call for Papers

Special Issue of *Computers and Composition*

New Literacy Narratives: Stories about Reading and Writing in a Digital Age

Guest editors: Sally Chandler and John Scenters-Zapico

From their inception, literacy narratives have provided powerful means for documenting the complex, social and material interactions that orchestrate both who we are as writers and the world where we write. Literacy narratives created through interviews have supported landmark studies of reading and writing in the culture at large, within particular identity groups, and in association with changing technologies (Brandt, 2001, 2009; Selfe & Hawisher, 2004; Sohn, 2006; Young, 2004); reflective, analytic narratives composed in the classroom have played an important role in helping students become better writers and in training future teachers (Corkery, 2005; McVee, 2004; Rabin, 2008). It is no surprise that digital technologies are changing not only the content of subjects' stories about reading and writing, but also the forms these stories can take.

In today's world, new literacy narratives – detailed reflective stories about reading, writing, and communication technologies - exist not only as alphabetic texts but as videos, digital stories, mash-ups, and animations. The creation of the Digital Archive of Literacy Narratives (<http://daln.osu.edu/>) and tools for accessing, searching and categorizing these new narratives offer exciting new opportunities for scholarly work. New literacy narratives demand new definitions for “reading and writing”; new methods for creating, archiving, and studying stories about literacies; and new pedagogical theory and practice to realize the opportunities they present in the classroom.

In this special issue, we invite contributors to share theories, experiences, and news about their work with new literacy narratives - within research proj-

ects and in the classroom. We are particularly interested in essays that identify questions, pose theory, and/or offer reflections relevant to:

- how new communication technologies are re-defining what counts as a literacy narrative
- the potential value and use of emerging practices for composing, representing, analyzing, archiving, or disseminating new literacy narratives
- explorations of pedagogies and projects associated with new literacy narratives in the classroom
- the changing ethics of literacy narratives gone digital – in the classroom and in the archive
- studies of new literacy narratives outside of the classroom in understudied niche ecologies
- new literacy narratives created by individuals from different generations
- the consequences of accessibility to technologies necessary to create new literacy narratives
- the role of new literacy sponsors—from within educational walls and outside them
- new literacy narratives and experiences in the workplace

Guest editors invite proposals that explore these and other questions surrounding the use of new literacy narratives in teaching and research. Proposals should be one page, single-spaced (approximately 500 words) with a separate page for references.

Deadline for proposals is March 1, 2011. Authors will be notified of acceptance by May 1, 2011; complete manuscripts will be due September 1, 2011. Send proposals by email to Sally Chandler at <schandle@kean.edu> or John Scenters-Zapico at <jscenters@utep.edu>. Queries are welcome.



Call for Papers

Special Issue of *Rhetoric, Professional Communication and Globalization*

Navigating the Global Training Terrain: New Literacies, Competencies, and Practices

Guest editors: Pam Brewer, Jim Melton, and Joo-Seng Tan

The twenty-first century has been characterized by rapid transformation—technological, social, cultural, environmental, economic, and scientific. In this changing milieu, organizations and individuals must continually acquire new knowledge and abilities or be left behind. Influential entities such as the United Nations strongly advocate the pursuit of lifelong learning for individuals, while leading companies, government agencies, and non-governmental organizations seek to become what scholars such as Peter Senge have called “learning organizations” that can transform themselves through the learning of their members at all levels.

Training, or the structured development of skills, competencies, and up-to-date knowledge, is an increasingly important element in these pursuits. The shape of training may vary—formal or informal, face-to-face or technologically mediated, short-term or long-term—but the end purpose is always the same: to facilitate learning by individuals or groups, usually with the larger purpose of enhancing organizational quality.

Training is vital to the success of globally connected organizations and individuals, but success requires the trainers’ effective bridging of linguistic, cultural, and social distances. Only teams and individuals with facility in navigating diverse languages, cultures, technologies, educational practices, and rhetorical traditions will be able to successfully provide training to global audiences.

Professional communicators, whose discipline claims expertise in several areas relevant to training—including oral, written, and visual rhetoric, usability,

information architecture, electronic collaboration, intercultural communication, and collaboration with translators—are well positioned to contribute to global training efforts or take on the role of trainers themselves. Yet, despite these advantages, the pool of research on training in global audiences is limited, especially within the field of professional communication.

This special issue of the *Journal of Rhetoric, Professional Communication, and Globalization* seeks to address this need by providing a space for scholarly research and best practices on the topic of global, organizational training. The issue, entitled ***Navigating the Global Training Terrain: New Literacies, Competencies, and Practices*** will focus on training in global contexts from the perspective of both those who train and those who learn, including current research and best practices. The special issue will also cast an eye toward organizational training as it is evolving towards the future.

Submissions

The editors of the special issue welcome submissions from a variety of perspectives including business, science, humanitarian practice, health, social advocacy, education, and government.

Possible topics pertaining to the theory, teaching, and practice of training in global contexts include the following, among others:

- Intercultural considerations in the design and delivery of training
- Training and the social web
- Cultural intelligence for trainers and training audiences
- Language use and translation in training contexts
- Meta-communication and training
- Communities of practice
- Legal issues in global training
- Economic aspects of global training
- Assessment of global training
- Training from a distance

Proposals (up to 500 words) for research papers, short best practices pieces*, and tutorials are due by October 10th, 2010. Review criteria can be found on the Journal's website at <www.rpcg.org>. Proposals should be sent as an email attachment to one of the guest editors of the special issue:

Pam Brewer, Appalachian State University: <brewerpe@appstate.edu>

Jim Melton, Central Michigan University: <james.melton@cmich.edu>

Joo-Seng Tan, Nanyang Technological University: <ajstan@ntu.edu.sg>

*We strongly encourage practitioners to submit best practices pieces on any of the topics identified in this CFP or on related topics. Best practices describe the training strategies, approaches, or methods that work in a particular situation or environment. What has worked and why? What has not worked so well, and what could work better? Authors may use the following optional framework for best practices pieces: title, description, methods used, results, technologies used, and lessons learned. While the proposal and review process is the same for research papers, tutorials, and best practices pieces, final manuscripts for best practices should be shorter: approximately 1000 to 3000 words in length.

About the Journal

The *Journal of Rhetoric, Professional Communication, and Globalization* publishes articles on the theory, practice, and teaching of technical and professional communication in critical global and intercultural contexts such as business, manufacturing, environment, information technology, and others. As a global initiative, the Journal welcomes manuscripts with diverse approaches and contexts of research, but manuscripts are to be submitted in English and grounded in relevant theory and appropriate research methods. The Journal is peer reviewed with an editorial board consisting of experienced researchers and practitioners from over 20 countries.

The Journal is free or “open access,” using PKP open source software and housed at East Carolina University. The first edition is planned for September 2010, and it will be published thereafter on a quarterly basis. For more information, see <www.rpcg.org>.

CPTSC Award for Excellence in Program Assessment

We are delighted to announce the 2010 Award for Excellence in Program Assessment recipients: Margaret Hundleby and Jo Allen, editors of Baywood's *Assessment in Technical Communication*. I want to thank Kathy Northcut and Bill Williamson for excellent and fast turnaround of reviews—three of the four assessment committee members were contributors to the volume and thereby unable to review.

On behalf of the Committee,

Nancy Coppolla