Assessment of a University Faculty Development Program on Speaking and Writing Pedagogy Through Direct Measurement of Student Learning Outcomes

Julie Gissendanner Howdeshell

University of Southern Mississippi

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ASSESSMENT OF A UNIVERSITY FACULTY DEVELOPMENT PROGRAM
ON SPEAKING AND WRITING PEDAGOGY THROUGH DIRECT
MEASUREMENT OF STUDENT LEARNING OUTCOMES

by

Julie Gissendanner Howdeshell

Abstract of a Dissertation
Submitted to the Graduate School
of The University of Southern Mississippi
in Partial Fulfillment of the Requirements
for the Degree of Doctor of Philosophy

May 2012
ABSTRACT

ASSESSMENT OF A UNIVERSITY FACULTY DEVELOPMENT PROGRAM ON SPEAKING AND WRITING PEDAGOGY THROUGH DIRECT MEASUREMENT OF STUDENT LEARNING OUTCOMES

By Julie Gissendanner Howdeshell

May 2012

The purpose of this study was to assess a faculty development program through direct measurement of student learning outcomes through investigating the relationship between participation in a faculty development program on speaking and writing pedagogy and student learning outcomes in oral and written communication. Faculty and students enrolled in senior capstone courses in Spring 2011 were asked to participate as part of requirements for internal assessment and external accreditation. Of the 1,448 students enrolled in capstone courses that semester, 1,002 papers and 727 recordings were received, representing 69% and 50% of those enrolled respectively. A sample of 400 papers and 400 presentations were randomly selected, with approximately 80 papers and 80 presentations from each of the University’s five colleges. To gain a representative sample, the number of artifacts from each course was based on the proportion of students that comprised the total enrollment of capstone courses for that semester, representing 41 courses and 47 faculty members in the speaking assessment and 47 courses and 60 faculty members in the writing assessment. After replacement of personal identifiers with unique codes, each paper and presentation in the sample was rated twice using locally developed rubrics based on student learning outcomes for oral and written
communication. The two ratings for each artifact were then averaged to obtain a final rating. Logs of faculty development participation were then used to determine whether the artifact was from a course taught by an instructor who had participated in a faculty development offering or not and the scores compared using Mann-Whitney \( U \) analysis.

The results of the study indicated that student papers in courses led by instructors participating in faculty development had statistically significant higher scores for every category of the writing rubric: purpose and content, reasoning, structure, language, audience, documentation, and the overall score. Rubric scores of student presentations were statistically higher in courses led by instructors participating in faculty development than in those who had not participated in the areas of audience, vocal delivery, nonverbal delivery, and overall with no statistically significant differences in purpose and content, support for reasoning, structure, language, or audio-visual aids.
The University of Southern Mississippi

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CHAPTER I
PROBLEM

Introduction and Statement of Problem

“It was once said that a log lying on the side of the road with a student sitting on one end and a professor on the other was a university” (Bennett, 1996, p. 4, referring to Mark Hopkins in Kunitz & Haycraft, 1964, pp. 383-384). Even with all the complexities of comprehensive, modern universities today, education, at its heart, occurs through the interaction of students and faculty. Despite the importance of this relationship, the scholarship of teaching is in many ways still in its nascent stages when it comes to post-secondary education. Elementary and secondary school teachers must take numerous courses outside of the content areas in which they teach, specifically in the “how to teach” -- in pedagogy.1 Certifications and licenses must be sought, teaching evaluations conducted, and continuing education credits earned. Post-secondary pedagogical training is less mandated and less structured. “The dark secret of higher education is that most college professors are never trained to be teachers. As doctoral students, their dissertations demand research; teaching skills are assumed to be easy for intelligent people to acquire” (AACU, 2002, p. 16). While the need and value of faculty development to improve student learning has been recognized, as evidenced by the increasing number and scope of faculty development programs in the last half-century, assessment of these programs in terms of determining their effectiveness has been minimal, relying on indirect measures such as usage numbers and satisfaction surveys, without making direct connections to student learning outcomes. While indirect assessment has a role, the end goal of improving student learning is not fully captured

1 For the purposes of this study, the term “pedagogy” will be used and defined as instructional strategies.
unless direct assessment is conducted. Direct assessment promises to move us closer toward a valid means by which to measure learning. Given the human and financial commitments made in faculty development by institutions, and the faculty themselves, stakeholders seek an answer to the simple question, “does it work?” This study seeks to provide one means of assessing faculty development programs aimed at improving teaching and learning through direct measurement of student learning outcomes by investigating the relationship between participation in a faculty development program about speaking and writing pedagogy and student learning outcomes in oral and written communication. The study is in the context of a university-wide assessment of oral and written communication in capstone courses at a comprehensive, public research university in the southeast. The student learning outcomes established for the faculty program and for this study are provided in Appendices A and B.

Research Questions

The study examined whether scores on written and oral communication assessments of students enrolled in capstone courses taught by instructors receiving the training on speaking and writing pedagogy were higher than scores of students enrolled in capstone courses taught by faculty without the training for each of the criterion included on oral and written communication rubrics in alignment with the established student learning outcomes for which the faculty development program was primarily, but not solely, created. (Note: A rubric is a scoring tool that outlines the specific criterion for the assignment and provides a detailed description of what constitutes various levels of performance for each of those parts) (Stevens & Levi, 2005). Specifically, the following research questions were studied:
1. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of purpose and content?

2. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of support for reasoning?

3. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of structure?

4. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of language?

5. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of audience adaptation?

6. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication
rubric scores of students enrolled in courses taught by faculty without the training in the area of vocal delivery?

7. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of nonverbal delivery?

8. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the area of audio-visual aids?

9. Are oral communication rubric scores of students enrolled in courses taught by instructors who received training on speaking pedagogy higher than oral communication rubric scores of students enrolled in courses taught by faculty without the training in the overall score?

10. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of purpose and content?

11. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of evidence-based reasoning?
12. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of structure?

13. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of language?

14. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of audience adaptation?

15. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the area of documentation of sources (when applicable)?

16. Are written communication rubric scores of students enrolled in courses taught by instructors who received training on writing pedagogy higher than written communication rubric scores of students enrolled in courses taught by faculty without the training in the overall score?
Research Hypotheses

The following hypotheses were tested for the purposes of this study:

H₁: There will be significantly higher rubric scores in the area of purpose and content on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₂: There will be significantly higher rubric scores in the area of support for reasoning on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₃: There will be significantly higher rubric scores in the area of structure on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₄: There will be significantly higher rubric scores in the area of language on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₅: There will be significantly higher rubric scores in the area of audience on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₆: There will be significantly higher rubric scores in the area of vocal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₇: There will be significantly higher rubric scores in the area of nonverbal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.
H₈: There will be significantly higher rubric scores in the area of audiovisual aids on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₉: There will be significantly higher rubric scores in the overall score on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H₁₀: There will be significantly higher rubric scores in the area of purpose and content on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H₁₁: There will be significantly higher rubric scores in the area of reasoning on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H₁₂: There will be significantly higher rubric scores in the area of structure on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H₁₃: There will be significantly higher rubric scores in the area of language on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H₁₄: There will be significantly higher rubric scores in the area of audience on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.
H₁₅: There will be significantly higher rubric scores in the area of documentation on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H₁₆: There will be significantly higher rubric scores on the overall score on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

Definition of Key Terms

*Capstone course*

In this context, a capstone course is the course identified by each degree plan to meet the general education curriculum requirement for providing a program-specific communication-intensive course. The course must be taken during the senior year and must meet the following written and oral communication requirements as noted in the 2010-2011 *Undergraduate Bulletin* of The University of Southern Mississippi:

*The writing component* of the Capstone requires students to write a minimum of 5,000 words (approximately 20 pages of double-spaced typed text) in discipline-specific papers and assignments. The written communication component should teach students to focus on a specific subject matter (with corresponding readings and discussions), encourage students to think critically and creatively, outline a subject matter or theme, and produce drafts. *The oral communication component* of the Capstone requires the successful completion of a minimum of two graded speeches or two appropriate graded oral communication equivalents. The oral communication component should teach rhetorical reasoning, audience adaptation, professionalism and presentation skills including clarity of expression,
ideas and voice, as well as prepare students to be critical consumers of public
discourse. (p. 86)

Direct Assessment

Direct assessment is based on “direct evidence of student learning [that is]
tangible, visible, self-explanatory, and compelling evidence of exactly what students have
and have not learned” (Suskie, 2009, p. 20).

Faculty Development

Faculty development refers to “the broad range of activities institutions use to
renew or assist faculty in their varied roles” (Centra, 1976, p. 5). For the purposes of this
particular study, faculty development is aimed at instructional development, and, in
particular, improvement of students’ oral and written communication skills. Further, the
faculty development program includes multiple formats: the 10-week seminar (the
primary format), the retreat, and workshops. See Chapter III for additional information.

Indirect Assessment

Indirect assessment is based on “evidence about how students [or faculty] feel
about learning and their learning environment rather than actual demonstrations of
outcome achievement. Examples include: surveys, questionnaires, interviews, focus
groups, and reflective essays” (Eder, 2004, p. 137).

Instructional development

Instructional development is the area of faculty development programming related
to the development of course design, curriculum design, or pedagogical training aimed at
improving student learning (Centra, 1976).
**Oral communication rubric**

The oral communication rubric is the rubric developed as part of the University’s Quality Enhancement Plan (QEP) to measure student learning outcomes in the area of oral communication (See Appendix C).

**QEP**

QEP refers to the Quality Enhancement Plan, “a carefully designed and focused course of action that addresses a well-defined topic or issue related to enhancing student learning” through an institutional initiative (SACS, 2004, p. 21). A QEP is a part of the reaffirmation process for institutions within the Southern Association of Colleges and Schools.

**QEP faculty development participant**

A QEP faculty development participant is a faculty member who has participated in one of the QEP faculty development offerings at the institution being studied.

**Written communication rubric**

The written communication rubric is the rubric developed as part of the University’s Quality Enhancement Plan (QEP) to measure student learning outcomes in the area of written communication (See Appendix D.)

**Rubric**

A rubric is “a scoring tool that lays out the specific expectations for an assignment” and “divide[s] an assignment into its component parts” and “provide[s] a detailed description of what constitutes acceptable or unacceptable levels of performance for each of those parts” (Stevens & Levi, 2005, p. 3).
Delimitations

The sample for this study will be limited to data from a faculty development program about oral and written communication at a public, four-year comprehensive research institution in the southeast. This study is confined to the variables of faculty development participation and student learning outcomes as outlined by the oral and written communication rubrics. Other factors such as students’ grade point averages, incoming ACT scores, and students’ prior speaking and writing abilities are not incorporated. (Note: Over fifty percent of the students at the institution used in this study were transfer students for whom ACT scores are not required for admission or available for this study.) In addition, factors such as faculty motivation to participate in faculty development, faculty background in other pedagogical training, and other characteristics related to teacher effectiveness are not included.

Justification of the Study

According to a 1990 study conducted by the Professional and Organizational Development Network in Higher Education (commonly known as POD), 89 percent of the 1200 four-year colleges and universities surveyed have faculty development programs (Kurfiss & Boice, 1990). Large amounts of human and financial resources are invested in developing programs, establishing teaching and learning centers, providing seminars and workshops, as well as travel to professional conferences, hiring outside consultants, and the like (Steinert, 2000; Weimer & Lenze, 1991; Wergin, 1977). The time of the salaried faculty member spent on participating in faculty development must also be considered in terms of the human and financial resources committed. Given economic constraints and increased calls for accountability, faculty development programs need to
generate data showing their effectiveness. In addition, faculty members want to know whether the information being shared as part of the faculty program yields the intended results. Is spending the time to learn and implement new methods worth it? This is especially true given that faculty at a university have other responsibilities than teaching, such as research, publication, and service.

By having a means of connecting faculty development directly to student learning outcomes, institutions have a means of evaluating the investments made in their faculty development programs. Faculty development professionals have a means of determining what is working and what is not in their programs and making necessary adjustments in the spirit and need of continuous improvement. Faculty development advocates can also have a means of justifying a program’s value beyond satisfaction of the participants and the assumption that it is inherently valuable. This is critical given that during tough economic times, faculty development programs are often reduced or eliminated. Faculty members who participate in development programs benefit by receiving curriculum that has been shown to work.
CHAPTER II

REVIEW OF LITERATURE

Overview

In reviewing the literature associated with this particular study, it is important to first establish a theoretical framework by examining different theories of education and how teachers approach education. From there, an examination of faculty development in the United States, its history, role, and development will be provided, including a review of the literature on assessing the effectiveness of faculty development. Finally, an overview of assessment and salient issues within assessment will be discussed, including criticisms of assessment, its necessity, purposes, and best practices in assessment planning design. Finally, the threads of educational theory, faculty development, and assessment will be related to the particular study of this research.

Theoretical Framework

It is clear, therefore, that one must make laws about education and that one must make this a common project. What kind of education there shall be, and how one should be educated, must not be neglected questions. For at present there is a dispute about its proper tasks: Not everyone assumes that the young must learn the same things with a view to virtue or the best life, nor is it clear whether it is more appropriate for education to be addressed to the mind or to the character of the soul. The result of looking into current education is confusion, and it is not all obvious whether we ought to get training in matters that are useful for life, or conducive to virtue, or out of the ordinary. For all of these alternatives have won some advocates. And there is no agreement about what contributes to virtue; for
to begin with, not everyone esteems the same virtue, and so it is to be expected that they also disagree about the training for it. (Aristotle, as cited in Kraut, 1997).

Aristotle wrote these words over 2,000 years ago and the same questions he asked then are asked today: What are the reasons for education? What is its goal? What does it mean to be an educated person? What is the best route to becoming educated? The answers to these questions are based in the different philosophies of education and the approaches to teaching and learning and form the theoretical framework for this study.

Theories of Education

This section will examine five well-known educational theories, connecting them with the philosophies from which they emerge. For the purposes of this paper, philosophies are defined as “complete bodies of thought that present a worldview” (Ornstein & Levine, 2000, p. 389) and theories are “ideas that are specific to particular institutions and processes” (p. 403). Thus, educational theories, which are derived from philosophies or from practice, are specific to the institutions of schools and to the processes of schooling, curriculum, teaching, and learning. In particular, the following five educational theories will be examined: perennialism, progressivism, social reconstructionism, essentialism, and critical theory.

Perennialism. The educational theory of perennialism is based on the idea that education should focus on those subjects and ways of thinking that have been constant or recurring throughout time. Rooted in the classics, a liberal education, and a search for truth that harkens back to Aristotle, perennialism as an educational theory was first articulated by Robert Hutchins in such works as The Higher Learning in America (1936)
and *A Conversation on Education* (1963). For perennialists, the ideal education is one that focuses on the enduring questions and concerns of humanity, primarily in the form of Western cultural heritage. Education should focus on developing intellectual power and not become an institution of social services (Ornstein & Levine, 2000). Two decades later, Mortimer Adler’s *Paideia Proposal: An Educational Manifesto* revitalized the theory of perennialism. Within education, *paideia*, a Greek word, referring to the rearing of a child (Chambliss, 1996, p. 439), encompasses “the total educational formation of a person” (Ornstein & Levine, 2000, p. 411), including the subjects and skills found within general education curricula and reflective of the ancient subjects and skills of a liberal education, the trivium (grammar, rhetoric, and logic) and the quadrivium (mathematics, geometry, music and astronomy). Those that argue that the focus on Western heritage is too narrow and that the classics ignore the contributions of women, minorities, and other cultures are criticized by perennialists for weakening education through cultural relativism (Bloom, 1987).

**Progressivism.** Based on the philosophy of pragmatism, progressivism was in response, and in contrast, to the traditional educational model which focused on the classics and book-based instruction. Progressivism is most often associated with the work of John Dewey and is characterized by hands-on activities and projects, problem-solving, and real-world applications, and as instrumental in social reform (Elias & Merriam, 1980; Ornstein & Levine, 2000). Further, progressivism aimed to educate the individual in response to his or her interests and needs and is, as a result, learner-centered (Dewey, 1915; Dewey & Dewey, 1962). Progressivism is credited (or blamed, depending on your view), for broadening the view of American education to include not
only liberal education, but practical education. Within higher education, practicality came in the form of having programs of study connected with particular professions, such as engineering, nursing, and specific vocations. The ideas behind land grant institutions also fit into this pragmatic philosophy of education.

_Social Reconstructionism._ Progressivism was viewed by some as a means of social reform. This aspect of progressivism developed into its own specific educational theory, the theory of social reconstructionism, sometimes termed just as “reconstructionism.” Social reconstructionism is based on the belief that _the goal_ of education should be social reform and that schools should become agencies of social reform (Ornstein & Levine, 2000). Specifically, reconstructionists argued that traditional curriculum and systems have created social problems, or at least not solved them, and that through their continuance, social ills, such as poverty, violence, and inequality, remain. Theorists in this camp believed that education should “reconstruct” society by “integrating new technological and scientific developments with those parts of the culture that remain viable” (Ornstein & Levine, 2000, p. 407).

In *Dare the School Build a New Social Order?* (Counts, 1969), George Counts, a well-known advocate of reconstructionism, challenged teachers to take the initiative in shaping society and to not “evade the responsibility of participating actively in the task of reconstituting the democratic tradition and of thus working positively toward a new society” (Counts, 1933, p. 5). Theodore Brameld, helped develop the theory of reconstructionism in reaction to the harsh realities of World War II. Through such works as *Toward a Reconstructed Philosophy of Education* (1956), he argued that education
could help support a benevolent society instead of one aimed toward human cruelty and violence.

**Critical Theory.** Like social reconstructionism, critical theory views schools as institutions of social power and argues against a traditional curriculum rooted in Western ideals. Rooted in Marxism, and neo-Marxism, critical theory, as defined by Giroux (2010) in an article honoring Paulo Freire, is an "educational movement, guided by passion and principle, to help students develop consciousness of freedom, recognize authoritarian tendencies, and connect knowledge to power and the ability to take constructive action" (p. B15). Thus where reconstructionism seeks to develop new systems with the goal of solving socioeconomic problems, critical theory seeks deconstruction of traditional models and new conceptions that incorporate the views of underrepresented cultures and groups and espouse a completely different view of society. Critical theorists argue that “teachers, like students, need to be empowered so that they can use methods that open students to social alternatives rather than mirroring the status quo” (Ornstein & Levine, 2000, p. 419). This would include alternatives to the concepts of individualism, competition, private property, and capitalism such as community and equality (Ornstein & Levine, 2000) and pedagogy that is “not about training in techniques and method…. [but] a political and moral practice that provides the knowledge, skills, and social relations that enable students to explore the possibilities of what it means to be citizens . . . ” (Giroux, 2010, p. B15).

**Essentialism.** Akin to the traditional approaches found in perennialism is the theory of essentialism. Rooted in the philosophies of idealism and realism, essentialism seeks to ensure that education provides students with a strong grounding in “the basics”
or “essentials” (Ornstein & Levine, 2000, pp. 403-417). William Bagley, a well-known proponent of essentialism and author of *The Educative Process* (1905), argued that teachers were in need of special training for their work and committed much of his career to the education of teachers (Null, 2007). Along these lines, essentialsists in general contend that “social experimentation and untested innovations have lowered academic standards” (Ornstein & Levine, 2000, p. 414). While both perennialism and essentialism are teacher-centered and subject-matter focused, perennialists “see wisdom originating with human rationality and essentialists see it coming from tested human experience” (Ornstein & Levine, 2000, p. 416).

This essentialist view was recently highlighted in the context of higher education by Rhodes (2010), vice president for the Office of Quality, Curriculum and Assessment at the Association of American Colleges and Universities (AAC&U):

Faculty across the country continue to report that their students need a broad set of essential skills and abilities in addition to a strong knowledge base to achieve success in today’s global society. The set of essential learning outcomes identified by faculty encompasses not only basic intellectual and practical abilities (such as written, oral, and graphical communication; critical thinking; problem solving; quantitative literacy; and so on) but also individual and personal responsibility outcomes (such as ethical reasoning, intercultural understanding, and working with diverse others, as well as the ability to integrate one’s learning across academic boundaries and apply knowledge in unscripted, complex situations). (p. 14)
Approaches to Teaching as Outlined by Fenstermacher and Soltis

Out of these theories, educators at all levels, face the responsibility of determining which theory to use in educating the persons that come into their classrooms, physically, or in some cases today, online. Recognizing, the difficulty of this task, Gary Fenstermacher and Jonas Soltis (1986), conceptualized three ways of approaching teaching: the executive approach, the therapist approach, and the liberationist approach with the idea that teachers would not choose just one, but with an understanding of each, tap into them depending on the purposes, goals, audience, and context or circumstance.

The following summary is from their work, Approaches to Teaching (1986).

The Executive Approach. In the executive approach, “the teacher uses certain organizational and management skills to impart to students specific facts, concepts, skills, and ideas so that these students are most likely to acquire and retain this specified knowledge” (Fenstermacher & Soltis, 1986, p. 15). This approach depends heavily on the connection between the processes used by the teacher and the product of learning.

The executive approach theory emerged from B.F. Skinner’s theories on operant conditioning. As Skinner stated, teaching is “the arrangement of contingencies of reinforcement under which students learn” (Fenstermacher & Soltis, 1986, p. 18). What specific actions by the teacher or elements of the teaching design yield the desired learning? Skinner’s theory focuses on what can be accomplished without regard to the student’s background and with the idea that the right arrangement can be determined regardless of the content or other environmental factors. It also focused less on the art of teaching and more on the science of producing learning.
This approach was questioned with the publication of the Coleman Report which found that other factors beyond the quality of facilities or of teaching personnel, such as the student’s family background and peers, had an impact on student learning. The research that followed the Coleman Report sought in many ways to disprove it, to ascertain the specific teaching methods that led to learning. Their question: “Do the instructional behaviors of some teachers lead to systematic gains in student achievement, while different instructional behaviors by other teachers show no systematic gains in student learning?” (Fenstermacher & Soltis, 1986, p. 20). According to Fenstermacher and Soltis, research generally shows that the role of teachers and schools accounts for at most 20% of the variance in achievement (p. 20). While this may seem a small percentage, “no other set of instructional methods can lay claim to accounting for so much (relatively speaking) of the variance in student achievement” (p. 21). According to Fenstermacher and Soltis, this approach is especially effective given the realities of today’s classroom organizational structure of education while it could be less so if other structures were in place.

Despite the relative effectiveness of the executive approach in the modern educational classroom, the executive approach is not without its critics or its alternatives. Perhaps the most well-known critic of this type of approach was Paulo Freire, author of *Pedagogy of the Oppressed* (1993), who argued against this type of education which treats students as “containers . . . to be filled by the teacher” (p. 53), dehumanizing them in the process. He compared this approach to banking in which “knowledge is a gift bestowed by those who consider themselves knowledgeable upon those whom they consider to know nothing. Projecting an absolute ignorance onto others, a characteristic
of the ideology of oppression, negates education and knowledge as processes of inquiry” (p. 53). Friere, instead, advocated for a humanist approach which pursued inquiry, arguing that the educator’s “efforts must coincide with those of the students to engage in critical thinking and the quest for mutual humanization. His efforts must be imbued with a profound trust in people and their creative power. To achieve this, they must be partners of the students in their relations with them” (p. 56). The next two approaches, outlined by Fenstermacher and Soltis, the therapist approach and the liberationist approach, include elements of honoring the role of the student and of acting to use knowledge not for purposes of transmission, but of solving problems and transforming society.

*The Therapist Approach.* The therapist approach is one in which the teacher, at the student’s invitation, takes a backseat to the student or at least the passenger’s seat, deciding not where to go or how, but is there as a guide for the student as much as the student needs the guide. The therapist approach recognizes that each human being is unique and works within an environment of freedom. In fact, “the purpose of teaching in the therapist approach is to enable the learner to become an authentic human being, a person capable of accepting responsibility for what he or she is and is becoming, a person able to make choices that define one’s character as one wishes it to be defined” (Fenstermacher & Soltis, 1986, p. 26). In specific contrast to the executive approach, the “teacher as therapist does not accept responsibility for moving specific knowledge and skills from some outside source into the mind of the learner; rather the teacher accepts responsibility for helping the student make the choice to acquire knowledge of a given
kind and for supporting the student as she acquires that knowledge and uses it to advance her sense of self” (p. 27).

While the executive approach emerged from behaviorist psychology, the therapist approach emerged from humanistic psychology which, as its name indicates, embraces the uniqueness of human beings. Abraham Maslow, one of the proponents of humanistic psychology, recognized the reality of the stimulus-response connection, but argued that these connections are based upon a person’s needs and the goal towards becoming “self-actualized,” defined as “one who possesses a balanced and integrated personality, with such positive traits as autonomy, creativeness, independence, altruism, and a healthy goal-directedness” (Fenstermacher & Soltis, 1986, p. 30). Carl Rogers applied humanistic psychology to education and to pedagogy. He argued that teaching was “a vastly over-rated function” and that true learning comes from experiences which are “self-initiated,” have “personal meaning for the learner,” and are “evaluated by the learner, not by the teacher or by tests” (p. 30).

Liberationist Approach. While the executive approach focuses on the actions of the teacher and the therapist approach focuses on the choices of the student, the liberationist approach focuses on the content with the goal of “freeing the student’s mind from the limits of everyday experience, from the deadness and banality of convention and stereotype” (Fenstermacher & Soltis, 1986, pp. 37-38). In addition, the manner in which the content is taught is critical, and must mirror the content, or the way of knowing and exploring the world. It must also reflect a level of sophistication and be based on a “form of knowledge” that has a “coherent conceptual system that has collectively developed over time to make sense of particular areas of human experience” (p. 43).
The liberationist approach is closely aligned with cognitive psychology, or “the way we acquire, interpret, apply, and expand our knowledge” (p. 45), but as Fenstermacher and Soltis note, the liberationist approach emerges more from philosophy than psychology. Specifically, the liberationist approach embraces the Greek idea of *paideia*, an educational system that included gymnastic, rhetoric, philosophy, natural history, music, grammar, mathematics, and geography (p. 46). Further, the focus should not be on the preparation of specific tasks or jobs, but on general knowledge and skills that can be used in a variety of contexts, including those not yet known.

**History and Role of Faculty Development in Higher Education**

The theories of education and the approaches to teaching outlined by Fenstermacher and Soltis are reflected in the history, practices, and foci of developing faculty within post-secondary education. Does faculty development take an executive approach, focusing on specific learning, to achieve specified learning? Does it take a therapeutic approach, asking faculty to determine their needs and goals, and provide support? Or does it take a liberationist approach, providing the framework to develop intellectual inquiry within content-specific environments? Given that faculty development is the independent variable that forms the basis of this study, it is important to next examine its evolution in American higher education. What have been its purposes, its foci, and how has it been implemented? What is its scope in American higher education today?

The first formal type of faculty development came in the form of sabbatical leave. Harvard University first established the practice in 1810 based on the philosophy that time specifically dedicated to the study of one’s discipline would result in improved
instruction (Eble & McKeachie, 1985; Schuster & Wheeler, 1990). As professional associations and conference opportunities grew, funding to support travel to professional meetings and conferences, along with continued use of sabbaticals, constituted the main forms of faculty development for virtually the next 150 years (Centra, 1976; Miller & Wilson, 1963) and are still popular as means of developing faculty today. Studies conducted in the 1960s and early 1970s showed that faculty development had expanded to include new faculty orientations, pre-college workshops, and occasional departmental meetings focused on pedagogy, but there was “a dearth of well-articulated, comprehensively designed programs for faculty” (Centra, 1977) and a sense by faculty that their institutions did not provide effective faculty development offerings (Centra, 1976; Eble, 1971). Of further concern was research showing that few institutions set aside funding specifically for faculty development (Eble, 1971).

In the 1970s, and in response to growing enrollments, a new student population, and pressures to be more accountable, faculty development offerings expanded further, not just in number, but in terms of substance, theory, and analysis. Some universities and community colleges established programs and centers that focused on instructional improvement and development. This was spurred by the 1972 report by the National Advisory Council on Education Professions Development which noted the need for more effective training of community college teachers and the funding that followed at the state level and at the federal level through the Fund for the Improvement of Postsecondary Education (FIPSE) and the National Institute of Education (NIE).

In addition, the first in-depth research on faculty development began during this time. In 1975, Berquist and Phillips published “Components of an Effective Faculty
Development Program” in the *Journal of Higher Education* describing three components of faculty development: instructional development (curriculum development, teaching diagnosis, and training), personal development (interpersonal skills and career training), and organizational development (team building and managerial development). Gaff (1975) developed a similar framework modifying the term “personal development” to “faculty development” and expanding it to include teaching behaviors. These three areas continue to be used as a means of describing and framing the types of faculty development by The Professional and Organizational Development Network in Higher Education, more commonly known as POD. Specifically, POD defines the three areas as follows.

The first area, personal development (or faculty development as termed by Gaff), concentrates on programming that focuses on the individual faculty member as a teacher, scholar, professional, or person. In terms of teaching, programming would focus on such topics as classroom organization, in-class presentation and discussion leading skills, evaluation of students, discipline policies, and interpersonal relations between students and faculty members. In terms of developing faculty as scholars or professionals, programming would provide support for publishing, grant writing, building tenure portfolios, and other aspects of career planning. Another focus of personal development concentrates on the faculty member as an individual and would address topics such as stress management, wellness, assertiveness, time management, and other areas that promote personal well-being.

The second area, instructional development, focuses on courses, the curriculum, and student learning with the purpose of improving the institution and its students. In this
area, faculty members work with instructional design specialists to develop and incorporate course structures, assignments, activities, and teaching strategies to achieve the particular goals of the instruction. The aim here is the strengthening of student learning outcomes.

The third type of faculty development is organizational development and focuses on making organizational structures more effective with the idea that if the institutional environment is strong that its component parts, namely the faculty and students, will flourish, and that research, teaching, and student learning will be strengthened as well.

These types, or areas, of faculty development were reinforced in an extensive national study of faculty development practices conducted by Centra in 1975 of approximately 2,600 accredited two-year colleges, four-year colleges and doctoral degree granting universities. Centra (1976) noted that “the majority of programs and practices that have been devised attempt to help faculty members grow in teaching effectiveness by their teaching skills and knowledge. Other practices try to help faculty better understand themselves and their institutions, or try to foster better environments for teaching and learning” (p. 1).

Of the 1,783 institutions responding to Centra’s initial inquiry, 60% reported providing some form of faculty development programming. Approximately 750 institutions completed the follow-up questionnaire which asked respondents to estimate the use and effectiveness of a variety of faculty development programs, the kinds of faculty members involved, the funding and organization of the activities, and the types of faculty development programs. The study was based on the views of those who directed or were knowledgeable about faculty development activities at their respective
institutions and their perceptions of the programs. This included directors of faculty development programs, deans, or faculty members with responsibilities for faculty development. As Centra (1976) noted, “their estimates of the use and effectiveness of the various practices can be expected to be somewhat more positive” than those not involved in the programs and “most of the respondents did not have hard data on hand to answer each question” (p. 9). Centra’s study found that there were “sizable numbers” of faculty members involved in faculty development programming. Also, respondents reported their perception that of the faculty members participating in faculty development, “good teachers who want to get better” were more active than “faculty who really need to improve” (p. 26). Most faculty development activities in higher education are voluntary, as “there is probably no better way to drive faculty away from a program than to identify it as a service for the inadequate” (p. 59). In terms of the types of faculty development used, personal development programming was used much less than instructional development. Most funding for faculty development at that time came from the institutions themselves, but as Centra concluded, “whether institutions will continue to sustain development programs may very well depend on the demonstrated impact of the programs” (p. 79).

Also in the mid-1970s, Berquist, Phillips, and Gaff continued to add to the literature and to guide institutions in re-visioning faculty development offerings through such seminal works as Toward Faculty Development (Gaff, 1975), and A Handbook for Faculty Development (Berquist & Phillips, 1977).

In the 1980s, the Bush Foundation Faculty Development Project in Minnesota and the Dakotas was established and provided funds for faculty development at the
institutions in those states to develop activities aimed at improving undergraduate education. Project grants supported a variety of faculty programming including individual study, course revision, strengthening pedagogy, and new course development and many included workshops and seminars. Individual programs were required to have internal evaluations, but the Foundation also saw the need for external evaluations and enlisted Kenneth Eble and Wilbert McKeachie to provide an overall evaluation of the faculty development programs involved in the Foundation Project. In evaluating whether faculty development programs had made a difference, Eble and McKeachie (1985) concluded that “evaluation of faculty development programs is difficult” and “obtaining evidence of [their] effects is rare” (p. 177). Eble and McKeachie elaborated on the challenges posed and the need to continue to develop new models despite their inherent imperfections. Their commentary in this area is especially important in the context of this research study:

. . . the most obvious and most refractory problem in evaluating faculty development programs is that of criteria. Faculty development, instructional development, curricular change, and organizational development are intended to improve education, but measuring educational outcomes is difficult, time-consuming, and expensive. Moreover, educational goals involve changes affecting lives of students not only during college, but lifelong. The achievement of educational goals is affected by student ability and motivation, characteristics of classroom groups, and the educational climate, as well as by a multitude of instructional variables. Thus a single faculty development program is likely to produce only a tiny dot on the mosaic of student educational experience.
Nonetheless, such dots should be searched for whenever a reasonable possibility exists of finding a relationship between faculty development and impact upon student learning. And some allowance should be made for faculty development initiatives that are difficult, if not impossible, to measure. Programs directed at improving the teaching of a particular skill, such as writing, probably offer the most promise for such assessment, but even in cases where such desirable evidence can be obtained, random assignment to control groups is seldom available. Consequently, we must do the best we can with less than perfect research designs and measures. (Eble & McKeachie, 1985, pp. 178-179)

In contexts where measuring student learning directly is impractical, evaluation from multiple measures that points to the same outcomes, often termed triangulation, provides support of a successful program. “Thus when faculty judgments, student ratings, administrator evaluations, and expert site visitors’ assessments all agree that a program was successful, one has more confidence that the program worked than if only one source were used or the judgments are mixed or negative” (Eble & McKeachie, 1985, p. 179). Even with the use of multiple assessments that point to the same conclusions, when these assessments are all indirect measures, they lose some measure of credibility as those involved are very likely to give positive ratings. This is further exacerbated by the potential for bias if the evaluations are conducted internally by those most connected with the success of the program. Eble and McKeachie posit that evaluators can also analyze the process of developing the faculty development program as well and determine if objectives for numbers of participants, etc. reflect success, but this still does
not offer incredibly strong support that the program has resulted in improving student learning, the reason most instructional faculty development programs are created.

In *Creating the Future of Faculty Development: Learning from the Past, Understanding the Present*, Sorcinelli, Austin, Eddy, and Beach (2006) provided a helpful framework for reflecting on the history of faculty development since the 1960s that serves as a useful summary as well. The 1960s marked the Age of the Scholar where faculty members were primarily expected to be masters only of their discipline, and thus sabbaticals and professional conferences were the primary means of faculty development. In the 1970s, the Age of the Teacher began in response to changes in the higher education climate, and faculty development focused on strengthening faculty as teachers. During the 1980s, a focus on institutional-level goals led to the Age of the Developer. As the 1990s began, there was a greater focus on student learning and the scholarship of teaching and learning. This time period, termed the Age of the Learner, brought journals dedicated to studying more intentionally the impact of pedagogy on student learning. During the last decade, a recognition that institutions must work together through associations and organizations to improve faculty development brought the Age of the Network.

In this text, Sorcinelli et al. also provided an updated account of the status of faculty development efforts nationally, much akin to Centra’s 1975 survey, showing the growth in formalized efforts to support faculty development. The survey found that 54% of the institutions responding had a centralized unit with staff dedicated to faculty development, 19% had an individual faculty member or administrator, and 12% had a committee dedicated to supporting faculty development efforts. In terms of the goals of
development, which also mirror the areas discussed earlier, 72% of institutions were primarily focused on creating, maintaining, or building a culture of teaching excellence, 56% were focused on meeting individual faculty members’ needs, and 49% sought to advance new initiatives in teaching and learning (Sorcinelli, Austin, Eddy, & Beach, 2006).

Evaluating/Assessing Faculty Development Programs

The first large-scale study of faculty development assessment practices was conducted by Centra in 1975. Respondents were asked to rate the effectiveness of various faculty development practices and whether evaluations had been conducted of the faculty development programs or offerings at their respective institutions. Of those responding, 14 percent reported that they had conducted full evaluations and 33 percent indicated that they had conducted partial evaluations. (Definitions for full evaluations versus partial were not provided.) Nearly fifty percent revealed that the programs had not been evaluated at all. Given that faculty development programs at many institutions at this time were more loosely organized and many were still in their nascent stages, these results are not necessarily surprising. In addition, Centra noted that those that conducted program evaluations indicated questionnaires or interviews with faculty participants as the most common means of determining program effectiveness. Further, Centra (1976) noted that “although such methods can prove helpful in tapping faculty reactions to particular services, or in ascertaining faculty awareness of a program, more sophisticated designs are probably needed to deal with such issues as accountability and the actual effects of various activities” (p. 42). These findings were also reflected in Gaff’s survey conducted the same year which stated that over half of the 54 institutions reporting to
conduct evaluations relied on satisfaction surveys alone. Over a decade later, the findings were not much different. In a comprehensive study of approximately 1200 four-year institutions, the Professional and Organizational Development (POD) Network revealed that while 89 percent of institutions had faculty development programs, only 13 percent evaluated their effectiveness in a systematic way (Kurfiss & Boice, 1990).

In addition to satisfaction surveys, student ratings of instruction have also been used as a means of assessing the impact of faculty development programs (Erickson & Erickson, 1979; Hewson & Copeland, 1999; Kerwin, 1999). In this form of assessment, a program was deemed to be effective if student ratings of participating teachers improved. In one study, student evaluations were compared with an experimental and control group. Student evaluations have also been used in conjunction with self-reporting surveys, portfolios, and self-assessments to triangulate indicators of improvement (Wolverton, 1995).

Assessment of faculty development programs has not entirely been limited to self-reported measures or satisfaction surveys. In determining the impact of a fellowship program for instructional development, Sheets and Henry used pre and post-testing to measure cognitive changes, reviewed recordings of teaching sessions to evaluate behavioral changes, and conducted surveys and interviews to determine affective changes (Sheets & Henry, 1984).

In 1997, Chism and Szabo conducted a comprehensive study of how faculty development programs evaluate their services. The researchers found that evaluation activities are frequently conducted across program types and that the rationale for conducting assessment is primarily formative assessment, or to provide information to
base improvements, although many programs also note that assessment is useful in documenting successes for external purposes as well. Most evaluations of programs are internal and conducted by the staff within the program itself. When conducting program assessments, programs are more likely to evaluate user satisfaction than the impact on the user’s teaching or on the student learning that resulted from the teaching. The few who did conduct student learning outcome assessment generally used student self-reported data as to whether particular teaching behaviors impacted their own student learning or required participants receiving funding to conduct evaluations which included measuring student learning outcomes. Satisfaction surveys and self-reported changes in behavior were the most frequent methods for gaining data, with experimental designs being the least used method. What is learned from program evaluations is primarily shared internally and is seldom shared in publications or at professional conferences. When assessment is conducted, findings show that participants are satisfied with the program or service and that they self-report improvement in their teaching (Chism & Szabo, 1997).

More importantly, perhaps, Chism and Szabo’s 1997 study shed light on some of the reasons why evaluations of faculty development rarely assess the impact of services/programs on student learning outcomes. While acknowledging the logic in asking whether such programs made a difference in student learning, the reason for the creation of the programs in the first place, some questioned the fairness of evaluating second-order impacts. One respondent went as far as to say that student learning was not the goal of faculty development programming, saying, “Nor do I believe that more learning is an important rationale for what we do. I think we’re interested in . . . increasing faculty thoughtfulness about what they are really teaching and why” (Chism &
Szabo, 1997, p. 60). Others noted that lack of time and resources inhibited more in-depth assessment, and that engaging in such would take away from the work they were created to do in meeting faculty needs. One respondent commented, “If your center is about service to faculty, don’t move your center into a research institute on work time.” Another added, “I try to avoid involvement with low pay-out activities, such as conducting a survey or study to document the obvious.” (p. 60). Other respondents noted the concern that more in-depth studies linking faculty development to student learning outcomes would also require the time of the faculty member and that given the time the faculty participant was already investing in learning and applying new strategies, this would discourage participation.

Other respondents noted that program staff lacked expertise in program evaluation and that resources were not available to hire consultants with such expertise. In addition, others cited that access to student and faculty databases needed to implement such studies were not available to them (Chism & Szabo, 1997).

The majority of respondents, however, cited the inherent problems of research design and methodology associated with such studies, including small sample sizes, lack of baseline data, the inability to conduct pre/posttests (given that faculty members generally participate one semester and begin implementation the next semester with a new group of students), and the inability to control for the multitude of variables at work (Chism & Szabo, 1997).

Respondents also noted that given the time needed to conduct larger-scale and/or more in-depth studies, a staff member dedicated to such efforts would be necessary. Further, given the time and resources required, such studies might best be conducted as
special projects implemented on an occasional, rather than ongoing basis. One respondent noted, “Once you’ve documented the apparent impact of various services on teaching, . . . it’s difficult to justify the effort of doing it formally over and over.” Another reiterated, “We know that Clorox bleaches. We don’t have to restudy this before we do every wash.” Other responses noted that it was not feasible for faculty development programs to do the work of developing faculty and of conducting intensive studies simultaneously, saying, “Can we draw on studies that already prove the point? (Chism & Szabo, 1997, p. 61).

Ten years later, in 2007, Susan Hines conducted a study similar to that of Chism and Szabo in terms of content, but gathered the evidence through a qualitative study using a fixed-response interview format. Given the growth of accreditation and assessment requirements, one would think that this study would yield different results than Chism and Szabo found, but that was not the case. Although Hines found “a growing interest in measuring outcomes in teaching and learning,” the overall findings of the study were the same, with reliance on satisfaction surveys and self-reported data as the primary means of determining effectiveness without linkage to further analysis (Hines, 2007, p. 97). Findings from this study, which parallels Chism and Szabo’s 1997 study, suggested the need for further research in the design of “assessment models that measure the effectiveness of faculty development efforts in an efficient and feasible manner with respect to the inherent time and resource constraints” and in determining the “feasibility of measuring student learning outcomes as a result of faculty development services” (p. 96).
Salient Issues in Assessing Student Learning

In approaching direct assessment of faculty development, it is first necessary to examine the literature that surrounds assessment of the learning outcomes in question and their context. This is especially true given that those outside of the faculty developers themselves, the faculty and students, are involved. This section will provide an overview of assessment with the goal of providing faculty developers a sense of the key issues related to assessment, its history, role, and best practices and procedures.

On September 23, 1742, the Governor of the Massachusetts Bay Colony, John Winthrop, presided over an assessment of student learning outcomes for graduating seniors at Harvard College (Harcleroad, 1980, p. 1). Thus, while the term “assessment” may be new for some, academic assessment has been present in American higher education since its earliest times. In the last two decades, in particular, however, there has been a renewed emphasis on student learning and on demonstrating student learning to stakeholders. This emphasis has emerged, in part, in response to the view that “college graduates do not seem to be learning at a level that matches the expectations of employers, parents, or the general public” (Wright, 1997, p. 571). State governments and accrediting agencies have also established assessment requirements. As a result, while only a small percentage of campuses were engaged in assessment of educational programs two decades ago, nearly every campus carries out assessment-related projects today (El-Khawas, 1995).

Faculty and administrators who have been given a mandate to assess, either from their state government or regional accrediting agency, or both, may not agree that
assessment is inherently valuable. Even for those that believe in its value, it is important to understand the arguments from those who question its role.

**Criticisms of Assessment**

Just as students may express initial chagrin and anxiety at the idea of tests and other measures of performance, some faculty, administrators, and institutions may not welcome the prospect. In fact, there are legitimate criticisms of assessment of which those involved in the process need to be aware. The criticisms fit into three general categories: effects on students, effects on faculty, and effects on the institution.

Criticisms of assessment’s effects on student learning center on the idea that assessment discourages intellectual curiosity. Instructors believing that they are being evaluated on some level often “teach the test,” thus constraining true learning. Likewise, students who believe that they are being solely evaluated on the basis of a given test become transfixed on the content of that test. As a result, “surface” approaches to learning, such as memorization and reproduction, become primary and, there is a “premium on coverage of content at the expense of depth of understanding” (Brown & Knight, 1994, pp. 30-31). Critics argue that focusing on assessment also fosters further extrinsic motivation and dependency, discourages self-reflection, responsibility, and initiative, and empowers the test, or administrators of the test, and not the students. Finally, critics note that the measures used for assessment are not genuine or “life-like.” This is especially true with tests, but can also be applied to standardized tests or other assignments that the students view as add-ons or not replicated in “the real world.”

Faculty may also be critical of assessment of the real or perceived effects on them personally. At the American Association of Higher Education’s 2000 Assessment
Conference, faculty listed the following reasons why there is resistance to assessment from their own ranks:

- Faculty are overwhelmed by the procedural.
- Faculty view teaching as a creation. How do you evaluate a symphony?
- Assessment is not always viewed as helping the faculty; there is a perception that there is no benefit.
- An outside assessor is a threat to the guild.
- There is a dread of yet another thing that has to be done.
- There is concern that assessments won’t even be used.
- Fear of humiliation; culture of competition (Rice, 2000, p. 4)

While these comments were made in a brainstorming session, and may only be anecdotal, they do reflect the honest sentiments of a group of faculty involved in assessment enough to attend a conference on it. Thus, it is important for those conducting assessments to plan them in such a way as to minimize such negative feelings.

The news is not all dreary. The faculty at the workshop who listed the reasons for resisting assessment, also gave some solutions as to how to help. Those comments include:

- Address needs for rewards.
- Various assessment processes should be interrelated; avoid duplication of work.
- Approach people personally; do not impose programs on faculty.
- Communicate results in ways that do not humiliate.
• Make assessments both bottom-up and top-down and seek common ground.
• Teaching must be valued as scholarship (Rice, 2000, p. 4)

Indeed, faculty are a vital part of the assessment process and without their support, it is unlikely that the program or the assessment process will be effective.

In addition to assessment’s negative effects on students and faculty, there are institutional concerns. Critics are quick to point out that assessment wastes an enormous amount of time and money and leads to excessive bureaucratic red tape. Assessment measures are often unreliable and arbitrary and give a false sense that there is hard data about student performance. Finally, critics argue, assessment “conceals the importance of thinking intelligently about the whole business of learning and teaching” (Brown & Knight, 1994, p. 31). So, if pigs are not fattened by being weighed, as critics of assessment are quick to point out. Why invest time, thought, and money in assessing students thoroughly, when it would be better to concentrate on the business of teaching, or upon research?

You don’t cure a patient by taking his or her temperature, nor climb a mountain by reading a map, nor do you become a better higher education mathematics [professor] by reading about theories of motivation. (Brown & Knight, 1994, p. 11)

The answer, advocates of assessment argue, is that “each activity supplies information which is useful if not necessary for the completion of the task” (Brown & Knight, 1994, p. 11).
The Need for Assessment

The primary goal of assessment should be the improvement of student learning. Assessment provides feedback for both students and faculty, and helps identify strengths and weaknesses so that they can be appropriately addressed. In 1994, the Association of American Colleges (AAC) released *Strong Foundations: Twelve Principles for Effective General Education Programs*. The AAC concluded that “assessment results in more effective pedagogy, better courses, and more refined conceptions of requirements” (AAC, 1994, p. 52). These conclusions seem to be based on logic and experience more than research. Given that formal assessment on a continued basis is still evolving, there is little research to prove that assessment has indeed resulted in improved student learning. It would be helpful, for example, if before general education committees embarked on revisions of their curricula, they assessed what the students were learning first. Then, they could make changes, implement new programs, and see if there are indeed differences as a result of the assessment and the subsequent curricular and/or pedagogical revisions.

External Pressures

Critics of assessment must also realize that, as with other industries, if they do not regulate and assess themselves, someone else will, or will at least require it. While some institutions have begun assessment on their own, many have done so due to pressures by state boards or legislatures and/or accrediting agencies. In fact, some states, like Ohio, Tennessee, Pennsylvania, Indiana, and Washington, base funding, in part, on assessment performance. Performance-based funding “is a decades-old higher education finance strategy that links state funding for public colleges and universities with institutional
performance. [It] represents a fundamental shift in higher education finance—a shift from state inputs to campus outcomes, and from institutional needs to state priorities” (Harnisch, 2011).

This shift from inputs to outcomes has also been seen by regional accrediting bodies. In the past, accreditation focused more on the input of universities: how many full-time faculty members, how many credit hours of coursework, how many books and journals in the library. All six of the regional associations have rewritten their standards with a greater emphasis on what students learn as documented through assessment (McMurtrie, 2000, p. A29).

Of all the change in accreditation, there is one thing that all of the regional accreditation agencies have in common: “Measuring what students are learning will continue to gain importance. By focusing on results, rather than counting heads and library books, the regionals say, they are holding colleges accountable . . . and are encouraging colleges to use more and different kinds of measurement tools, such as audits of students’ work, to examine how their writing and critical-thinking skills improve over time” (McMurtrie, 2000, p. A29).

Thus, while there may be valid criticisms of assessment, it has become a fixture in the higher education landscape, and students, faculty, and administrators must gain expertise in the area so that assessment is not conducted merely as meeting a state mandate or accreditation requirement, but genuinely improves student learning. One of the first tasks in accomplishing this goal is to understand that assessment for accountability and assessment for improvement are not mutually exclusive.
Formative and Summative Assessment

Assessment is often viewed as having dual purposes: improvement and accountability. Early on, those conducting assessment were cautioned that the same methods “cannot and should not be used for both purposes” (Wright, 1997, p. 572). From this thinking, two categories of assessment emerged: formative and summative.

Evaluations that are aimed at improvement are often referred to as formative evaluations. “Formative evaluations by college faculty of their course and program plans traditionally have been casual and informal” (Stark & Lattuca, 1997, p. 268). Such evaluations are characterized by “providing feedback to program personnel” as opposed to “judging the worth of programs” (Farmer & Napieralski, 1997, p. 598). Formative evaluations should be conducted during the course of program development to provide guidance to the program’s developers and administrators. Thus, “[formative] evaluation is not a linear activity at the end of the implementation process; rather it forms a dialectic, developing and changing throughout the process” (Craven, 1980, p. 434). Evaluations that are “aimed at making major decisions about program continuance” are termed summative evaluations (Stark & Lattuca, 1997, p. 268). “They can lead to external judgments about a program’s quality, staffing, and level of support as well as determining its existence” (p. 268). Summative evaluations are viewed as linear in terms of development and evaluation. Thus, they are more appropriate for a program that has been in place for a longer period of time to determine success or failure (Craven, 1980; Farmer & Napieralski, 1997).

Despite the fact that these approaches are often viewed as separate and distinct, others note that they do not have to be mutually exclusive (Wright, 1997, p. 572). Just as
an individual student who is focused on learning in a particular course should be prepared for the assessment of her/his learning by the one holding her/him accountable, effective assessment that is focused on educational improvement is a valuable tool for institutions in accountability proceedings. Improving learning should always be the goal. If it is, those holding the institution will be satisfied. At the same time, if assessment is to be used in summative fashion, those participating need to know at the onset.

*Developing Assessment Plans and Procedures*

A necessary starting point for assessment is determining what one wants to know. In the educational context, “learning outcomes describe our intentions about what students should know, understand, and be able to do with their knowledge when they graduate” (Huba & Freed, 2000, pp. 9-10). In *Developing Outcomes-Based Assessment for Learner-Centered Education: A Faculty Introduction*, Driscoll and Wood (2007), note that learning outcomes can focus on one of four dimensions: knowledge, skills, attitudes and values, or behavioral outcome (pp. 52-53). In developing high quality outcomes, Driscoll and Wood also note that multiple sources and perspectives should be included, such as: faculty, students, relevant professional or disciplinary associations, and/or community sources (pp. 54-59). Outcomes must also be clear to those involved and measurable. How will you know when the outcome has been achieved? After developing the outcomes, a well-articulated plan should outline the following elements as noted by Allen (2006):

1. How each outcome will be assessed
2. Who will collect and analyze the data
3. Where and how data will be collected
4. When and how often each outcome will be assessed

5. Who will reflect on the results and close the loop, when needed, by implementing appropriate changes

6. How results and implications will be documented (p. 132)

The above questions need to be planned for in light of all those involved: the students, the faculty, and those administering the assessment, and in terms of respecting the individuals involved ethically. When used for making educational improvements, data collection is exempt from Institutional Review Board (IRB) review (Allen, 2006, p. 140). Despite the exemption, those involved in assessment should follow general ethical guidelines:

1. Anonymity: Names of individual students, faculty members, or identifiers associating individuals should be removed from artifacts collected.

2. Confidentiality: Names known to the researcher are not to be disclosed.

3. Privacy: Respondents determine the personal information they will share.

4. Data Security: Data is stored securely to protect the individuals involved.

5. Informed consent: Respondents are informed of the purpose of the project, the planned uses of the data, whether their responses will be confidential, and their rights not to participate (Allen, 2006, p. 141).

If the data is to be used for research that is presented or published, the process would need to meet Institutional Review Board (IRB) standards and be approved by the IRB.
Direct Methods of Assessment

Assessment practitioners must also make decisions about how the outcomes will be measured. There are a number of options, including commercially produced standardized tests, locally developed tests, and embedded assignments.

Standardized tests are commonly used for assessment because they provide comparisons with national norms, have established reliability and validity, and can be cost-effective. The disadvantages of standardized tests are that they may not accurately reflect areas of emphasis within a particular institution or program’s goals and outcomes, and they may not provide students an opportunity to sufficiently demonstrate skills or the practical applications of knowledge. The Conference on College Composition and Communication’s Assessment has been critical of such tests, especially when judging writing through use of multiple choice. As cited in Allen, “. . . choosing a correct response from a set of possible answers is not composing” (Allen, 2006, p. 150). Further, if the individual student is not affected by their outcomes on the standardized test, motivation can become a serious problem. Many institutions have found that students who are not accountable do not take the test seriously and may use the “Christmas tree” approach to testing.

There has been “increasing acceptance of local approaches that respect the particular emphases of local curricula and the strengths and interests of local faculty, as well as the unique missions and special clientele of a particular college” (Wright, 1997, p. 574). Locally developed assessment instruments have key advantages over their commercial counterparts. First, they provide for greater faculty involvement, thus decreasing the resistance of faculty who fear that assessment would result in “the
imposition of mandated, uniform curricula” (Wright, 1997, p. 574). Second, they are more likely to match the curriculum. “If the purpose of using the instrument is to assess the extent to which students are mastering the content of the institution’s curricula, well-designed locally developed methods should yield the most valid inferences about student learning” (Palomba & Banta, 1999, p. 100).

There are also disadvantages in using locally developed instruments. First, external observers may view the instruments as less technically precise than their commercial counterparts, and thus question their credibility. Second, locally developed tools do not provide for comparison with other institutions. Third, developing the assessment tools, collecting the data and analyzing the data may be time and cost prohibitive.

Another option for measuring outcomes is to use embedded assessment. Embedded assessment refers to work that students and faculty are already doing as part of their courses. This could be homework assignments, exams, papers, presentations, or other projects or activities. Embedded assessment, especially when already being developed and graded, is more likely to be a true reflection on the student’s abilities than add-on assessment in which the student knows their grade is not affected and there are no other consequences (Walvoord, 2004). Faculty value embedded assessment because it involves their courses and “data collection is unobtrusive and requires little or no additional workload for students and faculty, other than time to coordinate the assessment and accumulate results” (Allen, 2006, p. 159). Especially important given this study, Allen (2006) notes that “embedding the same assessment in multiple courses requires coordination, as well as concerted effort to develop and apply standards in a uniform
way. Faculty must agree on a grading scheme that can be used for grading and assessment, or they can assess the accumulated products at some other time . . . Because data can be tied to specific faculty, safeguards must be in place to guarantee that the assessment focuses on the program, not individual faculty” (p. 159). In addition, processes and instruments to be used in analyzing the data should be piloted before conducting the assessment on a larger scale.

Conclusion

This chapter has provided an overview of the literature in the key areas in which it relates: educational theory, the history and role of faculty development, assessment of faculty development, and the role and best practices associated with assessment of student learning. The conclusion of this chapter serves to connect these elements directly with the study of this research.

In terms of educational theory, this study is most directly connected with the theory of essentialism in that it is focused on “the basics” of writing and speaking skills and is rooted in the belief that teachers need special training for their work (Null, 2007). Given that the faculty development program used in this study took the approach of not being prescriptive, but of sharing a repertoire of strategies, and that participants also shared their own strategies, one could argue that it is not purely based on essentialism. Nonetheless, when one considers the purpose and aims of education in considering the educational theories, essentialism is the most closely connected.

Similarly, in terms of approaches to teaching, this study is most closely aligned with the executive approach and the belief that by aligning particular elements or processes in the teaching of content or skills, particular outcomes will follow.
Essentially, the question posed by Fenstermacher and Soltis (1986), is the same one posed in this study: “Do the instructional behaviors of some teachers lead to systematic gains in student achievement, while different instructional behaviors by other teachers show no systematic gains in student learning?” (p. 20).

While faculty development in general can focus on a number of aspects, such as developing interpersonal skills of faculty or developing research skills, this particular study is focused on instructional development with the aim of improving teaching so as to improve learning. In determining whether this type of faculty development has been effective, the literature noted an overreliance on indirect measures, such as participation numbers, satisfaction surveys, and self-reported data, and has repeatedly called for direct measurement, even if imperfect. As a result, this study seeks to add to the literature by assessing instructional development through direct measurement of student learning outcomes through investigating the relationship between participation in a faculty development program on speaking and writing pedagogy and student learning outcomes in oral and written communication. The assessment involved was both formative in that it sought to then be used to improve the faculty development program and summative in the sense that it would also be used as part of meeting accreditation standards. In conducting the assessment, faculty and students were made aware of these purposes and it was emphasized that neither individual faculty nor students were being assessed, but that the faculty development program itself was being assessed. The assessment for this study used locally developed measures in the form of scoring rubrics that were developed by a representative group of faculty. In using student papers and presentation recordings that were already being created as a result of the curriculum, the study used embedded
assessment, thus minimizing problems with student motivation frequently seen with add-on assessment. In developing this particular study, a study of writing at The University of Houston conducted in 2006, served as a model of incorporating the best practices outlined above, and in particular, of having information about product and processes in the context of a university-wide assessment of writing.

In “Keeping Assessment Local: The Case for Accountability through Formative Assessment,” Barlow, Liparulo, and Reynolds (2007) describe their comprehensive study of writing which examined such variables as past performance (GPA), explicitness of various traits in the writing assignment, student attitudes and beliefs about writing, the age students began learning English, and transfer status on the following writing criterion: purpose, evidence-based reasoning, flow management, audience awareness, and language control. As part of the study conducted at The University of Houston, an assessment team collected copies of student papers for a course-embedded writing assignment in junior level courses across the curriculum. After identifying a representative sample, 419 papers were rated on a five-criterion rubric aligned with the writing criterion noted above by graduate students with experience teaching composition after receiving training and establishing inter-rater reliability. The University of Houston study serves as a useful model in studying the relationship between a given variable or variables and established learning outcomes in the context of a university-wide assessment of writing. (Note: The article focused more on the processes of the study, their importance, and their impact, than on the specific findings of the study. Descriptive statistics were provided. Also, the findings were shared in the University of Houston Undergraduate Writing Assessment Report, Spring 2006. That report noted:
Past academic performance [determined by cumulative GPA at this institution], audience awareness [as determined by survey data], and explicitness of writing guidance in the assignments show definite influences on the writing performance scores. Language proficiency [determined by students self-reporting the age in which they began speaking English] shows a marginal influence on writing performance scores. Whether students are transfer students shows no influence.)

(p. 13)

The study of writing at The University of Houston provides a model for studying particular variables as they relate to student learning outcomes in writing and will be adapted here for studying the relationship between faculty development participation and student learning outcomes in oral and written communication to provide a means of direct assessment of faculty development.
CHAPTER III
METHODOLOGY

Overview

This chapter provides the context for the study, including a description of the faculty development program used in this research, the research design, the faculty and students involved, the instrumentation and process used in assessing the student papers and presentation recordings, and the procedures for analyzing the data. For the Spring 2011 semester, faculty teaching undergraduate senior capstone courses (which all had required oral and written components) were asked to provide a copy of the capstone course syllabus, a description (or the instructions) for one writing assignment, and a description (or the instructions) for one speaking assignment of their choosing. Students were asked to submit a copy of one writing assignment through Blackboard, an online tool, as designated by his/her instructor. Faculty provided recordings of student presentations with the option of using resources available through the university’s Speaking Center. In early Summer 2011, a representative sample of nearly 400 student papers and 400 student presentation recordings were rated through a double blind study by trained raters after establishing inter-rater reliability. The two scores were averaged for a final rating for each element. Logs of faculty development participation were then used to note whether each artifact was from a course led by a faculty development participant or not and the type of faculty development program: seminar, retreat, or workshop. Scores were then compared using Mann-Whitney $U$ test analyses to determine if statistically significant differences existed between student papers and presentations from courses led by faculty development participants when compared with
those who had not participated. The data were originally collected for internal assessment and external accreditation purposes and met federal exemptions for education settings (Exemption 45 CFR 46.101(b)(1)) (Office of Human Research Protections, 2004). Permission was then granted by the Institutional Review Board for use of the archived data for the purposes of this research.

Context

The faculty development program used in this study was first piloted in Fall 2005 as part of a Quality Enhancement Plan (QEP) required by the Southern Association of Colleges and Schools (SACS) for reaffirmation of accreditation of the university used in this study. In its earliest iterations, faculty development came in the form of a graduate style seminar which met once a week for two hours and fifteen minutes for ten consecutive weeks. Faculty from various colleges applied to participate in the seminar and eight to twelve faculty members were selected each semester. Upon completion of seminar requirements, faculty participants were remunerated through either a stipend or course reassigned time. Seminar sessions were held in a conference room setting designed for small group interaction or in a workshop room which allowed for flexible seating arrangements. Two faculty facilitators led the seminar sessions, one from English and one from Communication Studies. The program itself was administered by a staff director as part of other responsibilities related to the quality enhancement program. The seminar represented the primary format of the faculty development program.

In Fall 2010, a weekend retreat was offered in lieu of the ten-week seminar. A follow-up session was also required. Retreat participants received a stipend for participation and completion of faculty development requirements. The total number of
hours was comparable to the seminar, totaling 19 hours for the retreat and follow-up and 22.5 hours for the seminar. The retreat was limited to faculty scheduled to teach capstone courses for the Spring 2011 semester and included fifteen participants.

Seminar and retreat participants were required to attend all sessions and participate in tasks that modeled strategies for supporting oral and written communication. Tasks included discussion of assigned readings, brief presentations, discussion of discipline-specific issues, and brief writing assignments. Participants in the seminar and retreat were required to submit updated syllabi and writing and speaking assignments and share them with their fellow participants.

Faculty could also participate in workshops focused on design of writing assignments or speaking assignments. Workshop participants were provided lunch but were not required to submit assignments and did not receive a stipend or course-reassigned time. Workshop participation required registration, but did not require a selection process. Participants also received a packet of materials focused on assignment design including assignment traits associated with best practices.

Throughout the time that the faculty development program has been offered, the curriculum has focused on the student learning outcomes associated with the institution’s Quality Enhancement Plan. The student learning outcomes are provided in Appendices A and B. Session topics included incorporating speaking and writing to learn course content, introduction to rhetorical basics and forming speaking assignments, introduction to the writing process and designing writing assignments, and supporting and evaluating speaking and writing assignments.
The nature of the curriculum was to not be prescriptive, but to present a repertoire of strategies that the participants could consider, experience, and choose to incorporate (or not) in the way each thought would work best within their respective disciplines and courses. The strategies included incorporating pre-writing and pre-speaking activities such as free writing and outlining, sharing information about the Writing Center and Speaking Center, incorporating revision activities such as student self-assessment and student peer assessment, discussing the audience for assigned papers and presentations to provide focus and a sense of mirroring experiences beyond the classroom, best practices for the use of audio-visual aids, including, but not limited to PowerPoint, and incorporating activities for assessing, incorporating and documenting research.

Research Design

For this study, the independent variable was participation in a faculty development training program on oral and written pedagogy at a public, comprehensive doctoral university in the southeast. The dependent variables were scores on each of the criteria on the university’s Quality Enhancement Plan (QEP) rubrics for oral and written communication. (The QEP is a SACS requirement for reaffirmation of accreditation. The university selected Finding a Voice: Improving Oral and Written Communication Skills as its QEP topic.) There were eight criteria on the University’s QEP Oral Communication Rubric: purpose and content, support for reasoning, structure, language, audience, vocal delivery, non-verbal delivery, and audio-visual aids (when applicable) and six criteria on the University’s QEP Written Communication Rubric: purpose and content, evidence-based reasoning, structure, language, audience, and documentation of
sources (when applicable). In addition, overall scores for oral communication and written communication were included for analysis.

Population

The population for this study included faculty members teaching capstone courses during the Spring 2011 semester and the students enrolled in those courses. Capstone faculty members and students were identified by generating a query of course sections with the general education capstone course designation through the university’s computerized information system, PeopleSoft. Capstone courses were selected as an appropriate course given their communication-intensive requirements. As described in the University of Southern Mississippi’s Undergraduate Bulletin for 2010-11, capstone courses are a required component of the university’s general education curriculum. Each degree plan identifies a program-specific communication-intensive capstone course that must be taken during the senior year and must meet the following written and oral communication requirements as noted in the Undergraduate Bulletin:

The writing component of the Capstone requires students to write a minimum of 5,000 words (approximately 20 pages of double-spaced typed text) in discipline-specific papers and assignments. The written communication component should teach students to focus on a specific subject matter (with corresponding readings and discussions), encourage students to think critically and creatively, outline a subject matter or theme, and produce drafts. The oral communication component of the Capstone requires the successful completion of a minimum of two graded speeches or two appropriate graded oral communication equivalents. The oral communication component should teach rhetorical reasoning, audience
adaptation, professionalism and presentation skills including clarity of expression, ideas and voice, as well as prepare students to be critical consumers of public discourse. (p. 86)

The courses included represented disciplines from across all five colleges of the university (Arts and Letters, Business, Education and Psychology, Health, and Science and Technology) and two campuses: Hattiesburg and Gulf Coast. Faculty teaching capstone courses and students enrolled in those courses were required to participate in assessment for accreditation requirements. Capstone faculty members were asked to submit a copy of the course syllabus and a copy of one writing assignment and one speaking assignment. Capstone students were asked to submit one paper (linked to the assignment submitted by the faculty member) and one presentation recording (linked to the assignment submitted by the faculty member).

Sample

A sample of 400 papers and 400 presentations were included, with approximately 80 student papers and 80 student presentations from each of the five colleges. In order to gain a representative sample, the number of papers and presentations from each course was selected based on the proportion of enrolled students that comprised the total enrollment of the capstone courses for that college in Spring 2011 where possible, contingent on the number of papers and presentations submitted for the study. The number of artifacts for the category of documentation in the written communication assessment and for the category of audio-visual aids in the oral communication assessment was lower given that those elements were not required in all assignments.
Additionally, technical issues in viewing recordings, hearing audio, or viewing online papers may have reduced the sample originally identified.

Instrumentation

The instruments used for this research were the rubrics designed for use in the university’s Quality Enhancement Plan (QEP). (See Appendices C and D.) The rubrics were originally developed in 2006 by the QEP Assessment Committee which included the chair of the Speech Communication Department (now Communication Studies), the chair of the English Department, the director of the Center for Research Support, faculty from the Department of Education Leadership and Research (now Educational Studies and Research), the School of Social Work, and the School of Computing, and assessment staff from the Office of Institutional Effectiveness and the SACS-Quality Enhancement Program, including the researcher of this study.

The rubrics were directly linked to student learning outcomes and designed to be applicable to a broad range of disciplines. The rubrics also reflected the themes shared between the two types of communication in that the first five items on each rubric were the same: purpose and content, support for reasoning (or evidence-based reasoning), structure, language, and adaptation to audience and context.

Each rubric utilized a four point scale, or four levels of performance: unacceptable, minimally acceptable, proficient, and advanced. The Oral Communication Rubric was comprised of eight dimensions: purpose and content, support for reasoning, structure, language, adaptation to audience, vocal delivery, non-verbal delivery, and audio-visual aids (when applicable). The Written Communication Assessment Rubric was comprised of six dimensions or criteria: purpose and content, evidence-based...
reasoning, structure, language, audience adaptation, and documentation of sources (when applicable). A description was given for each dimension for each level of performance indicating the difference between levels of performance for each dimension or criterion. See Appendices C and D for detailed descriptions.

In addition to the faculty and staff on the assessment committee, the rubrics were reviewed by faculty who had completed the faculty development seminar as well as current participants for purposes of face validity and to determine applicability to a broad range of disciplines.

Both rubrics were used for university assessment processes in spring 2010 with inter-rater reliability (as defined by a zero or one point differential on a four point scale) ranging from 91% to 98% on all categories, with the majority of categories having 95% inter-rater agreement.

Procedures

For this study, the researcher used data collected through the University’s SACS-Quality Enhancement Program during the Spring 2011 semester in capstone courses. The data was originally collected for internal assessment and external accreditation purposes and met Exemption 45 CFR 46.101(b)(1) for educational settings (Office of Human Research Protections, 2004). A request to use the data for this research was submitted to the university’s Institutional Review Board, and approval obtained (Appendix E). A letter from the associate provost with oversight of the program was obtained granting permission to use the data for purposes of this study (Appendix F).

A PeopleSoft query of courses with the general education capstone course designation was generated by the Office of Institutional Research. The list included the
course numbers, section numbers, campus locations, instructor names and instructor e-mail addresses. The associate provost distributed instructions prepared by the QEP director via e-mail to capstone course faculty using the list of e-mail addresses run by the query. Faculty members teaching capstone courses were asked to:

1. Identify the writing assignment and speaking assignment to use in the university-wide assessments. These were to be assignments used toward meeting the general education curriculum guidelines for writing and speaking outlined above.

2. Submit a copy of the capstone course syllabus and the assignment description/instructions for one writing assignment and one speaking assignment to the SACS-Quality Enhancement Program office via e-mail or campus mail. (Note: The syllabus and assignment instructions were read by the raters to establish context before reading the student papers or viewing the presentation recordings for that course.)

3. Distribute an information sheet to students and ask students to write in the name of the writing assignment identified by the faculty member for use in the assessments and the date it is due in the class. (Students were given separate instructions about submitting the papers via Blackboard. See below.) The data was originally collected for internal assessment and external accreditation purposes and met Exemption 45 CFR 46.101(b)(1) for educational settings (Office of Human Research Protections, 2004).

4. Submit copies of student recordings for one oral assignment as determined by the instructor. Recordings could be made in the Speaking Center’s large
rehearsal room by making a reservation using WCOnline, the online appointment scheduler, on the Speaking Center Web site. Recordings made by the Speaking Center were retained for the assessments so that the faculty member did not have to resubmit. Faculty could also reserve flip cameras from the Speaking Center for use in classrooms or use other means of recording, such as WIMBA, IVN equipment, etc. and submit the recordings to the SACS-Quality Enhancement Program office by CD, etc.

Students were asked to submit a copy of one writing assignment as designated by his/her instructor through Blackboard. Specific instructions for uploading papers were linked on the SACS-Quality Enhancement Program Web site. Reminders were posted for students throughout the semester on Blackboard. Capstone faculty also received e-mail reminders from the associate provost and the director of the SACS-Quality Enhancement Program. Lists of students completing the requirements were provided to faculty upon request.

Syllabi and assignment descriptions were saved to the SACS-Quality Enhancement Program shared drive requiring login to the computer and login to the shared drive. Student papers were maintained in Blackboard until the time the sample was identified. All identifiers (including faculty names, phone numbers, e-mail addresses, and office locations, and student names and student identification numbers) were removed from syllabi, assignments, and student papers. A unique, ten-digit number was assigned to each student paper.

Student presentations recorded in the Speaking Center were maintained on the Speaking Center server. Only FERPA-trained Speaking Center employees and
employees of the SACS-Quality Enhancement Program had access. File names were saved by using the student’s identification number and then changed to a unique, ten-digit number. Recordings made outside of the Speaking Center and submitted to the SACS-Quality Enhancement Office were maintained in the SACS-Quality Enhancement Office. File names were saved by using the student’s identification number and then changed to a unique, ten-digit number.

At the end of the semester, a representative sample of papers and recordings was identified. (See above for more information about the sample.) During the time the artifacts were rated, electronic copies of the papers (with unique, random numbers) were maintained on laptops stored in a locked cabinet in the Writing Center in which only the Writing Center coordinator and director and the SACS-QEP director had access. The recordings were similarly secured in the Speaking Center in a locked cabinet in the Speaking Center office.

Four graduate students with experience tutoring in the Writing Center and with experience teaching composition served as raters for the writing sample. Prior to rating the sample, the raters went through a calibration process led by the director of the Writing Center and the director of Quality Enhancement (and researcher of this study) in order to establish inter-rater reliability. That process included reviewing the rubric in detail, reviewing papers from various disciplines, and rating papers and comparing ratings to confirm inter-rater reliability. After completion of the training, each paper in the sample for this research was rated by two different raters. The two ratings were averaged to obtain a final rating. An overall score for each paper was then determined by averaging the category scores for each paper.
Likewise, four graduate students with experience tutoring in the Speaking Center and with experience teaching oral communication served as raters for the speaking sample. Prior to rating the sample, the raters went through a calibration process led by the director of the Speaking Center and the director of Quality Enhancement (and researcher of this study) through the same process as the writing assessment.

Raters recorded scores on paper copies of the rubrics, and then entered scores in Survey Monkey, a software tool for collecting data. Each rater had a unique collector, or electronic folder, in Survey Monkey and only had access to that collector, or folder. Each presentation was rated by two different raters. The two ratings were averaged to obtain a final rating. An overall score for each presentation was determined by averaging the category scores for each presentation. Only FERPA-trained SACS-QEP employees had access to the data entered.

The data was then exported to an Excel file and to SPSS. Scores from classes led by a QEP faculty development participant were coded as “QEP” based on the list of faculty development participants maintained by the SACS-QEP Office. Codes were also entered to designate the faculty development program type: seminar, retreat, or workshop. Scores from classes not led by a QEP faculty development participant were coded as “Non-QEP.” The two were then analyzed by using a Mann–Whitney U test in SPSS to compare the means of the two groups and determine the relationship between faculty development participation and student learning outcomes as determined by the rubric scores.
Data Analysis

Given that the scale of the rubric was ordinal (describing order, but not the difference between the items measured), a Mann-Whitney $U$ test was used to test the following hypotheses:

$H_1$: There will be significantly higher rubric scores in the area of purpose and content on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

$H_2$: There will be significantly higher rubric scores in the area of support for reasoning on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

$H_3$: There will be significantly higher rubric scores in the area of structure on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

$H_4$: There will be significantly higher rubric scores in the area of language on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

$H_5$: There will be significantly higher rubric scores in the area of audience on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

$H_6$: There will be significantly higher rubric scores in the area of vocal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.
H7: There will be significantly higher rubric scores in the area of nonverbal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H8: There will be significantly higher rubric scores in the area of audiovisual aids on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H9: There will be significantly higher rubric scores in the overall score on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

H10: There will be significantly higher rubric scores in the area of purpose and content on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H11: There will be significantly higher rubric scores in the area of reasoning on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H12: There will be significantly higher rubric scores in the area of structure on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

H13: There will be significantly higher rubric scores in the area of language on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.
$H_{14}$: There will be significantly higher rubric scores in the area of audience on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

$H_{15}$: There will be significantly higher rubric scores in the area of documentation on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

$H_{16}$: There will be significantly higher rubric scores on the overall score on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

**Limitations**

All instructors had access to printed and online resources supporting writing and speaking even if they had not participated in the faculty development seminar, the retreat, or a workshop, so the “non-QEP” group may not have been as “pure” as a result. Additionally, some faculty members may have participated in other faculty development programs at other institutions.

The faculty development program used for this study has been in place since Fall 2005. While the student learning outcomes established in association with the program have remained constant, there have been three different facilitators used for the writing portion of the program and two different facilitators used for the speaking portion of the program. Further, given the interaction and collegial nature of the seminar, the peer makeup of the group in any given semester may affect the curriculum as well. In addition, given that the faculty development program is not prescriptive in nature, not all participants employ all the strategies in the same way or to the same degree.
Seminar participants did have to go through a selection process, although for most semesters the number of applicants was comparable to the number of spaces available. Retreat and workshop participants did not require a selection process.

Students may have had instructors in other courses prior to Spring 2011 that had participated in faculty development and thus benefitted even if their capstone instructor had not participated in faculty development.

Other student background variables were not included in the study that may have served in predicting rubric scores. Given the large percentage of transfer students at the institution used for this research and that ACT scores are not required for transfer students, ACT scores were not included in this study.

Student papers and presentations varied from discipline to discipline and, in some cases, from course section to course section, in terms of type, length, and weight of contribution to a student’s grade. These factors may have affected the degree of student motivation in completing the assignment.

Finally, while all capstone students and faculty were asked to provide materials, only 69% of papers and 50% of recordings were received. Technical difficulties in reading online versions of the papers, in viewing or listening to the recordings, and in entering scores in the online tool caused some artifacts not to be included.
Summary

The literature reviewed in Chapter II noted the lack of and need for direct assessment of faculty development programs while noting the problems inherent within doing so. This study was designed to provide a means of assessing a faculty development program through direct measurement of student learning outcomes through investigating the relationship between participation in a faculty development program on speaking and writing pedagogy and student learning outcomes in oral and written communication. Student papers and presentation recordings were collected as part of the university’s assessment and accreditation processes then rated using university established rubrics. Logs of faculty development participation were used to code the artifact based on whether it originated from a course led by an instructor who had participated in the university’s faculty development training or not, and, if so, the format of the faculty development offering. Approval was granted by the Institutional Review Board to use the data for this study.
CHAPTER IV

RESULTS

Introduction

The purposes of this study were 1) to provide a means of assessing a faculty development program on speaking and writing pedagogy through direct measurement of student learning outcomes in oral and written communication and 2) to determine whether there were higher scores on specific oral and written learning outcomes for students in courses led by instructors who had participated in pedagogical training when compared to students in courses led by instructors who had not participated in pedagogical training.

Sample Characteristics

All faculty and students enrolled in senior capstone courses offered in Spring 2011 were asked to participate as part of requirements for internal assessment and for external accreditation. A report of capstone enrollment was run after the last date to withdraw from courses. There were 1,448 students enrolled. Logs of papers and recordings received were maintained by the Office of Quality Enhancement. There were 1,002 papers received representing 69% of those enrolled and 727 recordings received representing 50% of those enrolled. In order to gain a representative sample, 80 student papers and 80 student presentations from each of the university’s five colleges were randomly selected. The number of papers and presentations selected from each course was based on the proportion of enrolled students that comprised the total enrollment of the capstone courses for that college in Spring 2011 where possible, contingent on the number of papers and presentations submitted for the study. Forty-one courses (some
with multiple sections) and forty-seven different faculty members’ courses (some with multiple sections) were represented in the speaking assessment. The writing assessment included forty-seven courses (some with multiple sections) and over sixty different faculty members’ courses (some with multiple sections).

**Statistical Analysis**

The hypotheses were tested through Mann-Whitney *U* test analyses. Of the sixteen hypotheses tested, eleven were supported and five were not. Of the nine hypotheses related to faculty development and oral communication outcomes, four were supported and five were not. All seven of the hypotheses related to faculty development and written communication outcomes were supported.

The constructs that demonstrated a statistically significant positive relationship to participation in faculty development in speaking pedagogies were in the areas of audience, vocal delivery, nonverbal delivery, and the overall score. The constructs in the areas of purpose and content, support for reasoning, structure, language, and audio-visual aids failed to show significant relationship to faculty development in speaking pedagogies. The sum of ranks for participation in faculty development in speaking pedagogies was higher for all areas except the area of language.

In relation to faculty development in writing pedagogies, all seven constructs demonstrated a statistically significant positive relationship: purpose and content, reasoning, structure, language, audience, documentation, and the overall score.
Hypothesis 1- Oral Communication: Purpose and Content

There will be significantly higher rubric scores in the area of purpose and content on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of purpose of content would be higher in courses taught by instructors receiving faculty development training was not supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of purpose and content on the oral communication rubric, but was not statistically significant, $U = 15915.500$, $Z = -1.464$, $p > .05$. The Mann-Whitney $U$ test results are presented in Table 1 below.

Table 1

Mann-Whitney U Test for Faculty Development and Oral Communication:

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>N</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>185.53</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>200.84</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td></td>
<td>15915.500</td>
<td>-1.464</td>
<td>.143</td>
</tr>
</tbody>
</table>

Note: $p > .05$
Hypothesis 2 - Oral Communication: Support for Reasoning

There will be significantly higher rubric scores in the area of support for reasoning on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of support for reasoning would be higher in courses taught by instructors receiving faculty development training was not supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of support for reasoning on the oral communication rubric, but was not statistically significant, $U = 16362.000$, $Z = -.932$, $p > .05$. The Mann-Whitney $U$ test results are presented in Table 2 below.

Table 2

Mann-Whitney $U$ Test for Faculty Development and Oral Communication: Support for Reasoning

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>N</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>188.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>199.08</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td></td>
<td>16362.000</td>
<td>-.932</td>
<td>.351</td>
</tr>
</tbody>
</table>

Note: $p > .05$
Hypothesis 3 - Oral Communication: Structure

There will be significantly higher rubric scores in the area of structure on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of structure would be higher in courses taught by instructors receiving faculty development training was not supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of structure on the oral communication rubric, but was not statistically significant, $U = 16175.500$, $Z = -1.072$, $p > .05$. The Mann-Whitney $U$ test results are presented in Table 3 below.

Table 3

Mann-Whitney U Test for Faculty Development and Oral Communication: Structure

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>187.44</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>199.82</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Total</td>
<td>390</td>
<td>16175.500</td>
<td>-1.072</td>
<td>.284</td>
<td></td>
</tr>
</tbody>
</table>

Note: $p > .05$
Hypothesis 4 - Oral Communication: Language

There will be significantly higher rubric scores in the area of language on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of language would be higher in courses taught by instructors receiving faculty development training was not supported in this study. The mean rank was lower for students in courses taught by instructors who had participated in faculty development training in the area of language on the oral communication rubric, but was not statistically significant, \( U = 15518.000 \), \( Z = -1.938 \), \( p > 0.05 \). The Mann-Whitney \( U \) test results are presented in Table 4 below.

Table 4

Mann-Whitney \( U \) Test for Faculty Development and Oral Communication: Language

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>( n )</th>
<th>Mean Rank</th>
<th>Mann-Whitney ( U )</th>
<th>( Z )</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>208.40</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>188.59</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td>15518.000</td>
<td>-1.938</td>
<td>.053</td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p > .05 \)
Hypothesis 5 - Oral Communication: Audience

There will be significantly higher rubric scores in the area of audience on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of audience would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of audience on the oral communication rubric, and was statistically significant, $U = 13624.500$, $Z = -3.671$, $p < .001$. The Mann-Whitney $U$ test results are presented in Table 5 below.

Table 5

Mann-Whitney $U$ Test for Faculty Development and Oral Communication: Audience

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>168.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>209.86</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td></td>
<td>13624.500</td>
<td>-3.671</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 6 - Oral Communication: Vocal Delivery

There will be significantly higher rubric scores in the area of vocal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of vocal delivery would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of vocal delivery on the oral communication rubric, and was statistically significant, $U = 13506.000$, $Z = -3.668$, $p < .001$. The Mann-Whitney $U$ test results are presented in Table 6 below.

Table 6

Mann-Whitney $U$ Test for Faculty Development and Oral Communication: Vocal Delivery

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>$n$</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>167.81</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>210.33</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td>13506.000</td>
<td>-3.668</td>
<td>&lt; .001</td>
<td>&lt;.05</td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 7- Oral Communication: Nonverbal Delivery

There will be significantly higher rubric scores in the area of nonverbal delivery on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of nonverbal delivery would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of nonverbal delivery on the oral communication rubric, and was statistically significant, $U = 12711.500$, $Z = -4.098$, $p < .001$. The Mann-Whitney $U$ test results are presented in Table 7 below.

Table 7

Mann-Whitney U Test for Faculty Development and Oral Communication: Nonverbal Delivery

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney U</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>135</td>
<td>162.16</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>250</td>
<td>209.65</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>385</td>
<td></td>
<td>12711.500</td>
<td>-4.098</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note: $p < .05$
**Hypothesis 8 - Oral Communication: Audiovisual Aids**

There will be significantly higher rubric scores in the area of audiovisual aids on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that oral communication rubric scores in the area of audiovisual aids would be higher in courses taught by instructors receiving faculty development training was not supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of audiovisual aids on the oral communication rubric, but was not statistically significant, \( U = 1509.000, Z = -.703, p > .05 \). The Mann-Whitney \( U \) test results are presented in Table 8 below.

**Table 8**

*Mann-Whitney U Test for Faculty Development and Oral Communication: Audiovisual Aids*

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney ( U )</th>
<th>( Z )</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>46</td>
<td>56.30</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>71</td>
<td>60.75</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>117</td>
<td>1509.000</td>
<td>-.703</td>
<td>.482</td>
<td></td>
</tr>
</tbody>
</table>

*Note: p > .05*
Hypothesis 9 - Oral Communication: Overall

There will be significantly higher rubric scores in the overall score on the oral communication rubric for students enrolled in courses taught by instructors who received faculty development training on speaking pedagogies.

The hypothesis that overall oral communication rubric scores would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the overall score on the oral communication rubric, and was statistically significant, \( U = 13792.500, Z = -3.284, p = .001 \). The Mann-Whitney \( U \) test results are presented in Table 9 below.

Table 9

Mann-Whitney \( U \) Test for Faculty Development and Oral Communication: Overall

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>( n )</th>
<th>Mean Rank</th>
<th>Mann-Whitney ( U )</th>
<th>( Z )</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>136</td>
<td>169.92</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>254</td>
<td>209.20</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>390</td>
<td>13792.500</td>
<td>-3.284</td>
<td>.001</td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p = .05 \)
Hypothesis 10 - Written Communication: Purpose and Content

There will be significantly higher rubric scores in the area of purpose and content on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of purpose of content would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of purpose and content on the written communication rubric, and was statistically significant, $U = 16008.500, Z = -2.272, p < .05$. The Mann-Whitney $U$ test results are presented in Table 10 below.

Table 10

Mann-Whitney U Test for Faculty Development and Written Communication: Purpose and Content

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>181.63</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>206.80</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td></td>
<td>16008.500</td>
<td>-2.272</td>
<td>.023</td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 11 - Written Communication: Reasoning

There will be significantly higher rubric scores in the area of reasoning on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of reasoning would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of reasoning on the written communication rubric, and was statistically significant, $U = 15003.500$, $Z = -3.165$, $p < .05$. The Mann-Whitney $U$ test results are presented in Table 11 below.

Table 11

Mann-Whitney $U$ Test for Faculty Development and Written Communication: Reasoning

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>$n$</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>175.06</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>210.99</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td>15003.500</td>
<td>-3.165</td>
<td>.002</td>
<td></td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 12 - Written Communication: Structure

There will be significantly higher rubric scores in the area of structure on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of structure would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of structure on the written communication rubric, and was statistically significant, $U = 15984.000$, $Z = -2.261$, $p < .05$. The Mann-Whitney $U$ test results are presented in Table 12 below.

Table 12

Mann-Whitney $U$ Test for Faculty Development and Written Communication: Structure

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>$n$</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>181.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>206.90</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td></td>
<td>15984.000</td>
<td>-2.261</td>
<td>.024</td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 13 - Written Communication: Language

There will be significantly higher rubric scores in the area of language on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of language would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of language on the written communication rubric, and was statistically significant, $U = 15446.500$, $Z = -2.780$, $p < .05$. The Mann-Whitney $U$ test results are presented in Table 13 below.

Table 13

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>$n$</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>177.96</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>209.14</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td></td>
<td>15446.500</td>
<td>-2.780</td>
<td>.005</td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 14 - Written Communication: Audience

There will be significantly higher rubric scores in the area of audience on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of audience would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of audience on the written communication rubric, and was statistically significant, $U = 15448.500$, $Z = -2.772$, $p < .05$. The Mann-Whitney $U$ test results are presented in Table 14 below.

Table 14

Mann-Whitney U Test for Faculty Development and Written Communication: Audience

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney U</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>177.97</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>209.13</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td>15448.500</td>
<td>-2.772</td>
<td>.006</td>
<td></td>
</tr>
</tbody>
</table>

Note: $p < .05$
Hypothesis 15 - Communication: Documentation

There will be significantly higher rubric scores in the area of documentation on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that written communication rubric scores in the area of documentation would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training in the area of documentation on the written communication rubric, and was statistically significant, \( U = 5891.500, Z = -3.764, p < .001 \). The Mann-Whitney \( U \) test results are presented in Table 15 below.

Table 15

Mann-Whitney U Test for Faculty Development and Written Communication: Documentation

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>n</th>
<th>Mean Rank</th>
<th>Mann-Whitney U</th>
<th>Z</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>99</td>
<td>109.51</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>163</td>
<td>144.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>262</td>
<td>5891.500</td>
<td>-3.764</td>
<td>&lt;.001</td>
<td></td>
</tr>
</tbody>
</table>

Note: \( p < .05 \)
Hypothesis 16 - Written Communication: Overall

There will be significantly higher rubric scores on the overall score on the written communication rubric for students enrolled in courses taught by instructors who received faculty development training on writing pedagogies.

The hypothesis that overall scores on the written communication rubric would be higher in courses taught by instructors receiving faculty development training was supported in this study. The mean rank was higher for students in courses taught by instructors who had participated in faculty development training on the overall score on the written communication rubric, and was statistically significant, $U = 14366.500$, $Z = -3.640$, $p < .001$. The Mann-Whitney $U$ test results are presented in Table 16 below.

Table 16

<table>
<thead>
<tr>
<th>Faculty Development</th>
<th>$n$</th>
<th>Mean Rank</th>
<th>Mann-Whitney $U$</th>
<th>$Z$</th>
<th>Asymp. Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>153</td>
<td>170.90</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>240</td>
<td>213.64</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>393</td>
<td></td>
<td>14366.500</td>
<td>-3.640</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

Note: $p < .05$

Ancillary Findings

In coding the papers and presentations as originating from courses led by QEP faculty development participants or not, coding was also added for the type of faculty development training program: seminar, retreat, or workshop. A Kruskal-Wallis test was conducted to evaluate differences among the three types on student learning outcome scores for oral or written communication.
For oral communication, no statistically significant differences were found between faculty development format in the areas of purpose and content, support for reasoning, or structure. Statistically significant differences were found for language, audience, vocal delivery, nonverbal delivery, audio-visual aids, and overall. For language, the mean rank was higher for students in courses taught by instructors who had participated in the retreat format, followed by the workshop, and the seminar. For audience, the mean rank was higher for students in courses taught by instructors who had participated in the seminar format, followed by the retreat, and then the workshop. For vocal delivery, the mean rank was higher for students in courses taught by instructors who had participated in the retreat format, followed by the workshop, and then the seminar. For nonverbal delivery, the mean rank was higher for students in courses taught by instructors who had participated in the retreat format, followed by the seminar, and then the workshop. For audio-visual aids, the mean rank was higher for students in courses taught by instructors who had participated in the seminar format, followed by the retreat, and then the workshop. For the overall score, the mean rank was higher for students in courses taught by instructors who had participated in the retreat format, followed by the seminar, and then the workshop. Sample sizes and mean ranks are presented in Table 17 and the Kruskal-Wallis test results are presented in Table 18 (see below).
Table 17

*Table of Means – Faculty Development Format and Oral Communication*

<table>
<thead>
<tr>
<th>Oral Communication Rubric Category</th>
<th>Faculty Development Format</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose and Content</td>
<td>None</td>
<td>136</td>
<td>185.53</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>219.69</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>191.39</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>185.14</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Support for Reasoning</td>
<td>None</td>
<td>136</td>
<td>188.81</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>212.24</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>195.62</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>173.04</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>None</td>
<td>136</td>
<td>187.44</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>218.60</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>189.26</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>189.66</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>None</td>
<td>136</td>
<td>208.40</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>215.16</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>170.70</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>188.55</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Audience</td>
<td>None</td>
<td>136</td>
<td>168.68</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>207.86</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>216.03</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>186.63</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Vocal Delivery</td>
<td>None</td>
<td>136</td>
<td>167.81</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>237.26</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>194.27</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>200.21</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
<tr>
<td>Nonverbal Delivery</td>
<td>None</td>
<td>135</td>
<td>162.16</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>89</td>
<td>226.67</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>133</td>
<td>206.67</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>169.73</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>385</td>
<td></td>
</tr>
<tr>
<td>Audio-Visual Aids</td>
<td>None</td>
<td>46</td>
<td>56.30</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>24</td>
<td>63.73</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>39</td>
<td>68.31</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>14.94</td>
</tr>
</tbody>
</table>

Table 17 (continued).

<table>
<thead>
<tr>
<th>Oral Communication Rubric Category</th>
<th>Faculty Development Format</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>Total</td>
<td>117</td>
<td></td>
</tr>
<tr>
<td></td>
<td>None</td>
<td>136</td>
<td>169.92</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>91</td>
<td>234.64</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>135</td>
<td>197.99</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>28</td>
<td>180.57</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>390</td>
<td></td>
</tr>
</tbody>
</table>

Table 18

Table of Results: Kruskal-Wallis Test

Faculty Development Format and Oral Communication

<table>
<thead>
<tr>
<th>Oral Communication Rubric Category</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose and Content</td>
<td>7.433</td>
<td>3</td>
<td>.059</td>
</tr>
<tr>
<td>Support for Reasoning</td>
<td>4.248</td>
<td>3</td>
<td>.236</td>
</tr>
<tr>
<td>Structure</td>
<td>5.391</td>
<td>3</td>
<td>.145</td>
</tr>
<tr>
<td>Language</td>
<td>15.384</td>
<td>3</td>
<td>.002</td>
</tr>
<tr>
<td>Audience</td>
<td>15.324</td>
<td>3</td>
<td>.002</td>
</tr>
<tr>
<td>Vocal Delivery</td>
<td>22.172</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Nonverbal Delivery</td>
<td>22.879</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Audio-Visual Aids</td>
<td>17.757</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Overall</td>
<td>18.577</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

For written communication, no statistically significant differences were found between different faculty development formats in the areas of purpose and content, reasoning, structure, language, or audience. Statistically significant differences were
found for documentation and overall. For documentation, the mean rank was higher for students in courses taught by instructors who had participated in the workshop format, followed by the seminar, and then the retreat. The same was true for the overall score, with the mean rank highest for workshop, followed by the seminar, and then the retreat.

Table 19

*Table of Means – Faculty Development Format and Written Communication*

<table>
<thead>
<tr>
<th>Written Communication Rubric Category</th>
<th>Faculty Development Format</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose and Content</td>
<td>None</td>
<td>153</td>
<td>181.63</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>193.27</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>213.12</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>259.13</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Reasoning</td>
<td>None</td>
<td>153</td>
<td>175.06</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>206.09</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>210.07</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>284.69</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Structure</td>
<td>None</td>
<td>153</td>
<td>181.47</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>194.34</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>213.37</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>245.25</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Language</td>
<td>None</td>
<td>153</td>
<td>177.96</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>201.89</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>212.16</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>243.44</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Audience</td>
<td>None</td>
<td>153</td>
<td>177.97</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>211.23</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>204.25</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>267.75</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
<tr>
<td>Documentation</td>
<td>None</td>
<td>99</td>
<td>109.51</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>48</td>
<td>134.72</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>107</td>
<td>145.55</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>196.38</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>262</td>
<td></td>
</tr>
</tbody>
</table>
Table 19 (continued).

<table>
<thead>
<tr>
<th>Written Communication Rubric Category</th>
<th>Faculty Development Format</th>
<th>N</th>
<th>Mean Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>None</td>
<td>153</td>
<td>170.90</td>
</tr>
<tr>
<td></td>
<td>Retreat</td>
<td>95</td>
<td>203.99</td>
</tr>
<tr>
<td></td>
<td>Seminar</td>
<td>137</td>
<td>215.58</td>
</tr>
<tr>
<td></td>
<td>Workshop</td>
<td>8</td>
<td>294.94</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>393</td>
<td></td>
</tr>
</tbody>
</table>

Table 20

Table of Results: *Kruskal-Wallis Test*

*Faculty Development Format and Written Communication*

<table>
<thead>
<tr>
<th>Written Communication Rubric Category</th>
<th>Chi-Square</th>
<th>df</th>
<th>Asymp. Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose and Content</td>
<td>9.069</td>
<td>3</td>
<td>.028</td>
</tr>
<tr>
<td>Reasoning</td>
<td>13.826</td>
<td>3</td>
<td>.003</td>
</tr>
<tr>
<td>Structure</td>
<td>7.865</td>
<td>3</td>
<td>.049</td>
</tr>
<tr>
<td>Language</td>
<td>9.062</td>
<td>3</td>
<td>.028</td>
</tr>
<tr>
<td>Audience</td>
<td>10.321</td>
<td>3</td>
<td>.016</td>
</tr>
<tr>
<td>Documentation</td>
<td>18.996</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
<tr>
<td>Overall</td>
<td>18.082</td>
<td>3</td>
<td>&lt; .001</td>
</tr>
</tbody>
</table>

It should be noted that the number of artifacts in the sample for the workshop format for both oral and written communication was quite small (n=28 for oral communication; n= 8 for written communication).
CHAPTER V
DISCUSSION

Summary

This study examined the relationship between participation in faculty
development on speaking and writing pedagogy on student learning outcomes in oral and
written communication in senior capstone courses. Student papers and recordings of
student presentations were collected in Spring 2011 along with syllabi and assignment
instructions. After replacement of personal identifiers with unique codes, each paper and
presentation in the sample was rated by two different raters using locally developed
rubrics based on student learning outcomes for oral and written communication. The two
ratings for each artifact were then averaged to obtain a final rating. Logs of faculty
development participation were then used to determine whether the artifact was from a
course taught by an instructor who had participated in a faculty development offering at
the institution of this study or not and the two compared using Mann-Whitney \( U \) test
analysis. Full analyses of the data were presented in Chapter IV; a brief summary of the
data is provided here. Overall, the empirical findings showed that the faculty
development program in this study supported the student learning outcomes in written
communication and oral communication that served as its impetus. Sixteen hypotheses
were tested successfully. Eleven were supported and five were not. Of the nine
hypotheses related to faculty development and oral communication outcomes, four were
supported and five were not. All seven of the hypotheses related to faculty development
and written communication outcomes were supported.
For the hypotheses that were not supported, all were in oral communication. Of those, the mean rank was higher for the faculty development group than the group without faculty development for all areas but one, language, and that difference was not statistically significant. While it is not known why these hypotheses were not supported, it should be noted that the scores in general for oral communication were higher than in written communication, and that differences as one approaches the higher levels are more difficult to show. Further, in the category of overall score for oral communication, scores in the faculty development group were higher than the group without faculty development.

It should also be noted that the number of artifacts used to test the hypothesis for the category of documentation in written communication was smaller given the diversity of writing assignments included and the fact that not all written assignments required the category of documentation. Similarly, not all speaking assignments incorporated the use of audio-visual aids so that sample size was smaller. Finally, due to technical problems viewing the recordings due to camera placement, the sample size for non-verbal delivery in oral communication was slightly smaller (n=5).

This chapter will discuss the results and what this overall research may mean to the study of faculty development, and particularly instructional development, including a discussion of ancillary findings.

Discussion of Ancillary Findings

The ancillary findings examined differences among the three different faculty formats involved in this faculty development program: the seminar, the retreat, and the workshop (described earlier in Chapter III). While some statistically significant
differences were identified for some areas, the differences were not consistent overall, indicating that one format could not be deemed more effective than another (Also, note discussion of sample sizes below).

In the area of oral communication, no statistically significant differences were found between formats in the areas of purpose and content, support for reasoning, or structure. Statistically significant differences were found between formats for language, audience, vocal delivery, nonverbal delivery, audio-visual aids, and overall. For four of the rubric criteria, the retreat format had the highest mean rank (purpose and content, vocal delivery, nonverbal delivery, and the overall score). For the other two rubric criteria, audience and audio-visual aids, the seminar format had the highest mean rank. Of note here, the retreat format was only offered once and the faculty participants were all scheduled to teach capstone courses the following semester (the semester the data was collected for this study).

In the area of written communication, no statistically significant differences were found between formats except in documentation and overall. For documentation and overall, the mean rank was higher for students who had participated in the workshop format, followed by the seminar, and then the retreat. It is important to note that the sample size for the workshop format was much smaller ($n=8$) than for the retreat ($n=95$ overall) or the seminar ($n=137$ overall). Prior to the offering of the workshops and the retreat, early internal assessment findings indicated need for strengthening the area of documentation of sources in students’ writing. As a result, resources were provided in printed materials and made available electronically via e-mail and the university’s Web site.
Limitations

This study was conducted using papers and presentations from senior capstone courses which require oral and written components. Results at other points in the curriculum and with different course requirements could yield different results. The data for this study was conducted during one semester. Additional studies over the course of multiple semesters should be done to determine if similar results occur.

It should also be noted that the faculty development program used in this study had been in place for seven years. Over time, the group categorized as not having participated in faculty development programming may not have been as “pure” of a control group given that other faculty who have participated may have shared syllabi and assignments with their colleagues. In addition, printed and online resources were available to all faculty, not just those participating in pedagogical training. Finally, students may have had trained faculty for earlier courses and incorporated some of the strategies in subsequent courses.

Researchers should also be aware that not all faculty develop participants implement the strategies in the same way or to the same extent. The nature of the faculty development program used for this study was not prescriptive, but worked on the premise of presenting best practices from which each participant could choose to incorporate in the manner he/she deemed fit for the discipline and the course. Faculty attitudes may also play a role as to the extent to which new strategies are incorporated as some faculty members may resist providing detailed information about assignment development with the idea that students should struggle with these issues as they might in future situations.
Finally, the study of oral communication student learning outcomes was based on recordings of presentations rather than analysis of “live” presentations which could yield different results.

Contribution to the Literature

While the need and value of faculty development to improve student learning has been recognized as evidenced by the increasing number and scope of faculty development programs in the last half-century (Chism & Szabo, 1997; Sorcinelli et al., 2006), assessment of these programs in terms of determining their effectiveness has been minimal, relying on indirect measures such as usage numbers and satisfaction surveys, without making direct connections to student learning (Centra, 1976; Chism & Szabo, 1997; Eble & McKeachie, 1985; Hines, 2007). Chism and Szabo’s study (1997) was instrumental in explaining the reasons why evaluations of faculty development rarely assess the impact of services/programs on student learning outcomes, including: questioning the fairness of assessing second-order impacts, noting that their missions were not student-oriented, but faculty-oriented, lack of time, resources, and expertise, concern for negative impact on recruitment of faculty participants in the program, and problems related to research design (small sample sizes, inability to control multiple variables, and lack of baseline data). Despite these issues, the literature has consistently revealed the call for direct assessment of faculty development efforts for over thirty years (Centra, 1976; Eble & McKeachie, 1985; Ochsner & Fowler, 2004; Hines, 2007).

In particular, Eble & McKeachie (1985) noted that “programs directed at improving the teaching of a particular skill, such as writing, probably offer the most promise for such assessment” (p. 179). Yet, in a comprehensive review of eighty studies
conducted from the late 1960s through 2002, Robert Ochsner and Judy Fowler (2004), found a reliance on faculty and student perceptions of effectiveness in evaluating faculty development programs aimed at improving writing, much akin to that found by Centra (1976) and Hines (2007) in reviews of faculty development programs generally.

Eble and McKeachie (1985) and Ochsner and Fowler (2004) also argued that direct assessment should be pursued even if challenging or problematic. While recognizing the role of indirect assessment and acknowledging that “no assessment offers incontrovertible evidence,” Ochsner and Fowler (2004) nonetheless noted that they “would prefer that messy and even contradictory evidence about student learning be included” (p. 131).

This study has sought to add to the literature by conducting assessment of a faculty development program aimed at improving teaching and learning through direct measurement of student learning outcomes. While doing so has its inherent challenges, it is hoped that the processes presented here will lead to additional studies of the impact of faculty development programs on student learning. In addition, in this study, faculty development was found to be effective for some hypotheses and the results were suggestive of success in the others. Universities generally hold teaching and research as core to their missions. It is hoped that by assessing faculty development and by researching the use and outcomes of various pedagogies, that student learning will be enhanced.
Recommendations

Ideally, researchers and developers of pedagogical training should conduct studies of whether certain pedagogies have an impact on student learning outcomes, incorporate those into faculty development training, and determine whether or not the training has been successful by determining whether the strategies were incorporated or implemented and whether they resulted in improved student learning outcomes.

The literature has noted requiring faculty development as a measure for faculty needing remediation or as a punitive measure is problematic and can stigmatize the faculty development program. Little is known about required participation across the board for all faculty members teaching given courses. Institutions should embrace approaching pedagogy and educational development as a science. Once certain pedagogies have consistently been shown to be effective, these should be incorporated just as standards in other industries have the expectation of incorporating best practices. They should continue to be tested periodically and refined to produce even stronger experiences and results.

Recommendations for Future Research

Given the intensive nature of this type of assessment, and the time and financial costs involved, future studies could be linked with indirect measures of assessment, such as pre- and post-seminar surveys, and/or review of syllabi and assignment instructions to determine if simpler assessment processes could serve as indicators of promoting student learning. From there, the indirect measures could be used more frequently to monitor progress, and the more intensive direct assessment studies implemented on a more periodic basis to confirm student performance and serve as benchmarks. This would also
help alleviate problems with using the results in a timely manner before the next offering of the faculty development program or of student courses.

In terms of the process, researchers should consider use of a third rater to reconcile differences in ratings rather than averaging the two ratings. Use of a third rater was used in the University of Houston model but could not be implemented in this study due to financial constraints.

Researchers conducting studies on oral communication should be aware of the challenges inherent in data collection. Recordings of presentations are different than live presentations and can be affected by lighting, volume, and other technical issues.

Researchers may also want to consider the role of other variables in predicting student learning outcomes, including weight of the assignment, student background information, such as ACT scores, inclusion of specific pedagogies in syllabi and assignment instructions, and student use of strategies on a given assignment. Other factors to consider are the age and experience of the faculty, faculty attitudes, and the ways in which the pedagogies were implemented.

Researchers may want to compare disciplines to see if various pedagogies affected student learning outcomes differently and whether different types of faculty development programs would be more effective if tailored for specific disciplines.

Perhaps most importantly, researchers may wish to examine commonalities among low-scoring papers and presentations as a means of targeting issues needing improvement, and longitudinal value of faculty development programs by studying students in subsequent courses.
By studying the role of different variables in relation to student learning outcomes, more focused efforts can take place in implementing strategies that have been shown to be effective, making better use of time for faculty and faculty developers, and enhancing learning for students; in short, adding more “dots” to the mosaic of a more effective student learning environment and experience.
APPENDIX A

STUDENT LEARNING OUTCOMES – ORAL COMMUNICATION

<table>
<thead>
<tr>
<th>STUDENT LEARNING OUTCOMES – ORAL COMMUNICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. <strong>Purpose and Content:</strong> Students will demonstrate the ability to develop and orally deliver content in which the central idea/purpose is clearly stated and supports the purpose.</td>
</tr>
<tr>
<td>2. <strong>Support for Reasoning</strong> – Students will provide credible evidence for assertions.</td>
</tr>
<tr>
<td>3. <strong>Structure:</strong> Students will demonstrate the ability to organize presentations effectively.</td>
</tr>
<tr>
<td>4. <strong>Language:</strong> Students will demonstrate the ability to deliver presentations that are mostly free of serious problems in vocabulary, grammar, and/or usage.</td>
</tr>
<tr>
<td>5. <strong>Adaptation to Audience and Context:</strong> Students will demonstrate the ability to adapt content and style to the audience and context within set time parameters.</td>
</tr>
<tr>
<td>6. <strong>Vocal Delivery:</strong> Students will be able to deliver presentations in which the rate, volume, and tone facilitate audience comprehension.</td>
</tr>
<tr>
<td>7. <strong>Nonverbal Delivery:</strong> Students will be able to deliver presentations in which eye contact, posture, attire, gestures, movement and facial expressions facilitate, rather than distract from, audience comprehension.</td>
</tr>
<tr>
<td>8. <strong>Audio-Visual Aids:</strong> When using audio-visual aids, students will demonstrate the ability to develop and use audio-visual aids that add to the presentation through professional appearance and delivery.</td>
</tr>
<tr>
<td>9. <strong>Overall:</strong> Students will demonstrate overall proficiency in oral communication.</td>
</tr>
</tbody>
</table>
APPENDIX B

STUDENT LEARNING OUTCOMES – WRITTEN COMMUNICATION

<table>
<thead>
<tr>
<th>STUDENT LEARNING OUTCOMES – WRITTEN COMMUNICATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. <strong>Purpose and Content</strong>: Students will demonstrate the ability to clearly present the central idea/purpose and develop content to support the purpose.</td>
</tr>
<tr>
<td>11. <strong>Evidence-Based Reasoning</strong>: Students will provide credible evidence for assertions.</td>
</tr>
<tr>
<td>12. <strong>Structure</strong>: Students will demonstrate the ability to organize papers effectively.</td>
</tr>
<tr>
<td>13. <strong>Language</strong>: Students will demonstrate the ability to write papers that are mostly free of serious problems in vocabulary, grammar, punctuation, spelling, and/or usage.</td>
</tr>
<tr>
<td>14. <strong>Adaptation to Audience and Context</strong>: Students will demonstrate the ability to adapt content and style appropriate for the audience.</td>
</tr>
<tr>
<td>15. <strong>Documentation of Sources</strong>: Students will demonstrate the ability to incorporate research appropriately and to cite sources accurately.</td>
</tr>
<tr>
<td>16. <strong>Overall</strong>: Students will demonstrate overall proficiency in written communication.</td>
</tr>
</tbody>
</table>
## APPENDIX C

### ORAL COMMUNICATION ASSESSMENT RUBRIC – PART A

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>1 – Unacceptable</th>
<th>2 – Minimally Acceptable</th>
<th>3 - Proficient</th>
<th>4 - Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose and Content</strong></td>
<td>Central idea/purpose is not present and/or content does not support purpose.</td>
<td>Central idea/purpose is present and/or content minimally supports purpose.</td>
<td>Central idea/purpose is clear and content supports purpose.</td>
<td>Central idea/purpose is effectively presented and content strongly supports purpose.</td>
</tr>
<tr>
<td><strong>Support for Reasoning</strong></td>
<td>Makes generalizations without support or cites irrelevant evidence.</td>
<td>Evidence is offered but is sometimes inadequate for assertions.</td>
<td>Credible evidence is provided but connection to assertion is not always made clear.</td>
<td>Strong evidence is provided for assertions.</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Little or no structure present, thus making the presentation confusing because of lack of organization.</td>
<td>Structure is present but inconsistently executed; some material is out of place.</td>
<td>Structure is present and consistently executed.</td>
<td>Structure is purposeful and aids in presenting material in an effective way.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Frequent problems with vocabulary, grammar, and usage confuse audience and detract from credibility.</td>
<td>Isolated problems with vocabulary, grammar, and usage sometimes detracts from credibility.</td>
<td>Mostly free of serious problems in vocabulary, grammar, and usage. Language is mostly concise and adds to understanding.</td>
<td>Free of problems in vocabulary, grammar, and usage (with a few exceptions). Language is concise and strongly adds to understanding.</td>
</tr>
</tbody>
</table>
# ORAL COMMUNICATION ASSESSMENT RUBRIC – PART B

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>1 – Unacceptable</th>
<th>2 – Minimally Acceptable</th>
<th>3 - Proficient</th>
<th>4 - Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td>Audience</td>
<td>Content and/or style of presentation are inappropriate for the audience.</td>
<td>Content and/or style of presentation are occasionally inappropriate for audience.</td>
<td>Content and/or style of presentation are appropriate for audience.</td>
<td>Content and/or style of presentation reflects a clear sense of the targeted audience.</td>
</tr>
<tr>
<td>Vocal Delivery</td>
<td>Vocal delivery is too soft to hear, rate is too fast to understand, tone distract from message, and/or speech disruptions (repetitions; filled pauses, e.g., &quot;um&quot;) are inappropriate and significantly distracting.</td>
<td>Vocal delivery is audible. Rate, volume, tone, or speech disruptions are only occasionally distracting.</td>
<td>Vocal delivery is clear and distinct. Rate, volume, and tone facilitate audience comprehension. Speech disruptions are rare.</td>
<td>Vocal delivery is varied and dynamic. Speech rate, volume, and tone significantly enhance listener interest and understanding. Practically no speech disruptions.</td>
</tr>
<tr>
<td>Nonverbal Delivery</td>
<td>Eye contact, posture, attire, gestures, movement, and/or facial expressions are inappropriate and significantly distracting.</td>
<td>Eye contact, posture, attire, gestures, movement, and facial expressions are only occasionally distracting.</td>
<td>Eye contact, posture, attire, gestures, movement or facial expressions facilitate audience comprehension.</td>
<td>Eye contact, posture, attire, gestures, movement or facial expressions significantly enhance the presentation.</td>
</tr>
<tr>
<td>Audio-visual Aids</td>
<td>Audio/visual aid is significantly distracting due to appearance (content or format) or delivery (handling of visual aid).</td>
<td>Audio/visual aid is occasionally distracting due to appearance (content or format) or delivery (handling of visual aid).</td>
<td>Audio/visual aid adds to understanding through professional appearance and delivery.</td>
<td>Audio/visual aid significantly enhances the presentation through professional appearance and delivery.</td>
</tr>
</tbody>
</table>
### APPENDIX D

**WRITTEN COMMUNICATION ASSESSMENT RUBRIC**

<table>
<thead>
<tr>
<th>Learning Outcome</th>
<th>1 – Unacceptable</th>
<th>2 – Minimally Acceptable</th>
<th>3 - Proficient</th>
<th>4 - Advanced</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Purpose and Content</strong></td>
<td>Central idea/purpose is not present and/or content does not support purpose.</td>
<td>Central idea/purpose is present and/or content minimally supports purpose.</td>
<td>Central idea/purpose is clearly present and content strongly supports purpose.</td>
<td>Central idea/purpose is clearly present and content strongly supports purpose.</td>
</tr>
<tr>
<td><strong>Evidence-Based Reasoning</strong></td>
<td>Makes generalizations without support or cites irrelevant evidence.</td>
<td>Evidence is offered but is sometimes inadequate.</td>
<td>Credible evidence is provided but connection to assertion is not always made clear.</td>
<td>Strong evidence is provided for assertions.</td>
</tr>
<tr>
<td><strong>Structure</strong></td>
<td>Little or no structure present. Paper is frequently confusing to the reader because of lack of organization.</td>
<td>Structure is present but inconsistently executed; some material is out of place.</td>
<td>Structure is present and consistently executed.</td>
<td>Structure is purposeful and aids in presenting material in an effective way.</td>
</tr>
<tr>
<td><strong>Language</strong></td>
<td>Frequent problems with vocabulary, grammar, punctuation, spelling, and usage confuse reader and detract from credibility.</td>
<td>Isolated problems with vocabulary, grammar, punctuation, spelling, and/or usage sometimes confuse reader.</td>
<td>Mostly free of serious problems in vocabulary, grammar, punctuation, spelling, and usage.</td>
<td>Mostly free of problems in vocabulary, grammar, punctuation, spelling, and usage.</td>
</tr>
<tr>
<td><strong>Audience</strong></td>
<td>Inappropriate for audience</td>
<td>Occasionally inappropriate for audience</td>
<td>Appropriate for audience</td>
<td>Reflects a clear sense of targeted audience</td>
</tr>
<tr>
<td><strong>Documentation of Sources (if applicable)</strong></td>
<td>Material is used but not cited OR minimum source requirement was not met and/or formatting inconsistent w/citation style.</td>
<td>Sources are cited but there are significant errors in citations or formatting.</td>
<td>Sources are cited accurately with one or two minor errors in citations or formatting.</td>
<td>Format is correct and sources are cited accurately and consistent with citation style.</td>
</tr>
</tbody>
</table>
APPENDIX E

INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

THE UNIVERSITY OF
SOUTHERN MISSISSIPPI

INSTITUTIONAL REVIEW BOARD
118 College Drive #5147 | Hattiesburg, MS 39406-0001
Phone: 601.266.6820 | Fax: 601.266.4377 | www.usm.edu/irb

TO: Julie Gissendanner Howdeshell
28 Brookline Drive
Hattiesburg, MS 39402

FROM: Lawrence A. Hosman, Ph.D.
Institutional Review Board Chair

PROTOCOL NUMBER: 11090505
PROJECT TITLE: Assessing a University Faculty Development Program on Speaking and Writing Pedagogy through Direct Measurement of Student Learning Outcomes in Oral and Written Communication

Enclosed is The University of Southern Mississippi Institutional Review Board Notice of Committee Action taken on the above referenced project proposal. If I can be of further assistance, contact me at (601) 266-4279, FAX at (601) 266-4275, or you can e-mail me at Lawrence.Hosman@usm.edu. Good luck with your research.
NOTICE OF COMMITTEE ACTION

The project has been reviewed by The University of Southern Mississippi Institutional Review Board in accordance with Federal Drug Administration regulations (21 CFR 26, 111), Department of Health and Human Services (45 CFR Part 46), and university guidelines to ensure adherence to the following criteria:

- The risks to subjects are minimized.
- The risks to subjects are reasonable in relation to the anticipated benefits.
- The selection of subjects is equitable.
- Informed consent is adequate and appropriately documented.
- Where appropriate, the research plan makes adequate provisions for monitoring the data collected to ensure the safety of the subjects.
- Where appropriate, there are adequate provisions to protect the privacy of subjects and to maintain the confidentiality of all data.
- Appropriate additional safeguards have been included to protect vulnerable subjects.
- Any unanticipated, serious, or continuing problems encountered regarding risks to subjects must be reported immediately, but not later than 10 days following the event. This should be reported to the IRB Office via the “Adverse Effect Report Form”.
- If approved, the maximum period of approval is limited to twelve months. Projects that exceed this period must submit an application for renewal or continuation.

PROTOCOL NUMBER: 11090505
PROJECT TITLE: Assessing a University Faculty Development Program on Speaking and Writing Pedagogy through Direct Measurement of Student Learning Outcomes in Oral and Written Communication
PROJECT TYPE: Dissertation
RESEARCHER/S: Julie Gissendanner Howdeshell
COLLEGE/DIVISION: College of Education & Psychology
DEPARTMENT: Educational Studies & Research
FUNDING AGENCY: N/A
IRB COMMITTEE ACTION: Exempt Approval
PERIOD OF PROJECT APPROVAL: 09/20/2011 to 09/19/2012

Lawrence A. Hosman, Ph.D.
Institutional Review Board Chair

DATE: 9-22-2011
APPENDIX F

LETTER OF APPROVAL FROM ASSOCIATE PROVOST

The University of Southern Mississippi
Office of the Provost

118 College Drive #5002
Hattiesburg, MS 39406-0001
Tel: 601.266.5002
Fax: 601.266.5297
www.usm.edu

August 30, 2011

Institutional Review Board
Human Subjects Protection Review Committee
118 College Drive #5147
Hattiesburg, MS 39406-0001

Institutional Review Board,

This letter serves to notify you that Julie G. Howdeshell (301187) has permission to use the assessment data collected by the SACS-Quality Enhancement office in spring and summer 2011 for her dissertation.

Sincerely,

William Powell
Associate Provost
References


Rhodes, T. (2010). Since we seem to agree, why are the outcomes so difficult to achieve? *New Directions for Teaching and Learning, 2010*(121), 13-21. doi: 10.1002/tl.384


University of Houston. (2006). *Undergraduate writing assessment*. Retrieved from University of Houston Writing Center Website: www.uh.edu/writcen/Resources/UndergraduateWritingAssessmentSpr06.pdf

The University of Southern Mississippi. (2010). *Undergraduate bulletin*. Retrieved from University of Southern Mississippi, Registrar’s Office Website: http://www.usm.edu/registrar/bulletins/


