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Graduates‟ Perceived and Measurable Changes in Writing through One Ed. D. Program

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in Writing

through One Ed. D. Program

by

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A Dissertation submitted to the Education Faculty of Lindenwood University

in partial fulfillment of the requirements for the

degree of

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This dissertation has been approved as partial fulfillment of the requirements for the

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Declaration of Originality

I do hereby declare and attest to the fact that this is an original study based solely upon
my own scholarly work here at Lindenwood University and that I have not submitted it
for any other college or university course or degree here or elsewhere.

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Abstract

Research on writing proficiency from elementary students through undergraduates is prevalent; however, few focused on students in graduate school. Few teacher education programs require specific coursework in writing for teacher certification. Yet, teacher educators express concern about teacher candidates' writing proficiencies. Writing may not be explicitly taught, such as in graduate school or doctoral coursework, because professors assume students already have these skills. Writing is something writers are always learning to do, yet scholarly writing is not included as a learning objective throughout the doctoral coursework at Sibley University, at the time of this study. Sibley University is the pseudonym used for the university referenced throughout the dissertation. The purpose of the exploratory research was to gain a deeper understanding of measurable and perceived changes throughout the dissertation writing process, and possibly uncover information that faculty could use to improve the doctoral students' writings. Data from the study will provide Sibley University's EdD program's structure comparative completion data for benchmarking purposes.

The study consisted of participants from Sibley University's May 2011 EdD graduates, five EdD students who defended their dissertation between May of 2011 and December of 2011, and four students who defended in spring of 2012, a convenient sample. Seventeen participants agreed to a 19-question, taped interview; one of the 17 failed to submit drafts of writings. An additional four participants submitted the required writings but, due to time constraints, were not interviewed. Seventeen participants were interviewed and 20 submitted writings for data analysis, with a gender breakdown of 85% female, and 15% male.

An ANOVA for the difference in the means was run on average characters per word, average words per paragraph, average sentences per paragraph, and percentage of passive sentences for each draft of the dissertation from the identified four data points. The steps used in analyzing the qualitative data gathered from the participants' retrospective interview transcripts included: highlighted chunks of significant information on each transcript, highlighted segment a two tothree word description (code), and sorted all segments by meaning. The ANOVA analysis does not support a significant difference in average of variables analyzed when comparing documents, at the 95% confidence level. Yet, doctoral students perceived their writing had improved throughout the dissertation process.

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Chapter One

Background of Writing Proficiencies

Research on writing proficiency from elementary students through undergraduates is prevalent; however, few focused on students in graduate school (Abbate-Vaughn, 2007). Employers assume, when hiring a college graduate, the graduate has a skill set to write about ideas important in the field, analyze information, as well as relay ideas. Yet Abbate-Vaughn's study stated

> The outcomes of a study by the American Association of Colleges and
>
> Universities revealed that a dismal 11 % of college seniors are able to write at the
>
> proficient level while holding the belief that college was contributing to their
>
> skills in writing and other areas. (Abbate-Vaughn, 2007, p. 52)

Few teacher education programs require specific coursework in writing for teacher certification (Norman & Spencer, 2005). However, teacher educators express concern about teacher candidates' writing proficiencies (Gallavan, Bowles, & Young, 2007). Forty percent of first-year college students were in remedial writing courses in 2003 (Gallavan et el., 2007). Although writing is an essential component of high school curriculum, this does not mean students have mastered the skill (Abbate-Vaughn, 2007). Writing may not be explicitly taught, such as in graduate school or doctoral coursework, because professors assume students already have these skills. Students may become frustrated and fail to complete especially in more practitioner-based programs where the focus is not necessarily on research but on application of skills in the workplace. While at first writing may not seem an essential skill for school leaders, writing is communication, and reading is receiving and processing the communication according to

the National Writing Project and Nagin (2006). The State Standards for School Leaders

had no reference to research or writing (Missouri Advisory Council for the Certification

of Educators, 2011). However the revised researched based *ISLLC 2008* standards "to be

discussed at the policymaking level to set policy and vision", added a companion guide

supplement which emphasized the importance of educational leaders applying data and

research to impact student achievement, but nothing specific to writing (The Council of

Chief State School Officers, 2008, p. 6).

Studies have shown that many public schools are broken and in need of leaders

who have communication skills that bring about change (Krugman, 2009). Sibley

University's doctoral program educates candidates to become school and community

leaders in positions that required an individual's ability to write. Students entered the

doctoral program with a master's degree or Education Specialist (EdS) degree in

Educational Administration or a related field, as typical with most degrees of this type.

The same groups of students' experiences varied from achieving undergraduate

certification in early childhood or elementary education to business degrees to Master of

Divinity. The students also entered the doctoral program with a wide variety of

leadership experiences, teacher level to superintendent level or stockbroker to CEO

position. Background educations of these students varied in the intensity of writing,

which in turn affected the dissertation writing process. Doctoral students also entered the

program at different career points in their lives; some are students who have continued to

work on their education almost continuously from undergraduate to graduate through

doctoral work. While other doctoral students entered the program after career

experiences and a lengthy break from their last college course. Nettles and Millett (2006)

stated the average time off for Education students before starting the doctorate is 12

years, as did the statistics from the National Science Foundation (p. 133; National

Science Foundation, Division of Science Resources Statistics, 2010, Table 60).

Therefore, doctoral students' abilities to write are all over the spectrum, whether related

to the length of time between enrolled in coursework, the past writing experiences, level

of instruction received previously, or student's own ability. "Writing is hard because it is

a struggle of thought, feeling, and imagination to find expression clear enough for the

task at hand" (National Writing Project & Carl Nagin, 2006, p. 9). Students entering

terminal degree programs do so with the end in mind; everyone expects to finish the

program. However, the Educational Doctorate (EdD) student's educational experiences

may lack the proper writing preparation to meet the demand of the program. The variety

of doctoral programs varies from institution to institution and the variety of writing

requirements also vary. Nettles and Millett (2006) said "we are aware of a range of

approved [writing] options, from the substitution of three journal articles for a full-

fledged dissertation to the requirement that a dissertation represent totally original –

ground-breaking, in fact – work" (Nettles & Millett, 2006, p. 44).

The lack of preparation may begin with high school. Half of students entering

college are lacking skills to write on the entry level (Achieve, Inc., 2005), and a study of

a random sample of high school teachers revealed 71% felt they were not equipped to

teach writing at the completion of their teacher education program (Kiuhara, Graham, &

Hawken, 2009). As time goes on, scholars who studied the teaching of writing admitted

that it is complex and the process for writing varied depending upon the task (Leahy,

1990). Though professors are frustrated with the level of academic writing students

submit, there are few courses on how to teach scholarly writing and few professors propose to add a writing course to graduate curriculum (Rose & McClafferty, 2001). Perhaps the reason is the connotation of a writing course on graduate level equals remediation. "In essence, the scholars [Flower, Graham, Harris, Harste, Hillocks, Newkirk, and Smagorinsky] focused on the need of writing teachers to be positive role models of writing. To do that, however, teachers [HS] must first feel confident and prepared to teach writing effectively", which can be generalized at any level" (Zumbrunn & Krause, 2012, p. 348).

The EdD program assessed student writing both at admission and at completion of all content coursework. However, not all EdD students at Sibley University, who had passed the comprehensive exam and completed all the required coursework, earned the doctorate. According to faculty in the program, very few students failed the comprehensive exam, but many students failed to complete the dissertation in a timely fashion. According to the literature, not completing the dissertation may be due to admissions criteria (Powers & Fowles, 1996), lack of writing in coursework at all levels to prepare students (Abbate-Vaughn, 2007; Alter & Adkins, 2006; Belcher, 2009; Burgoine, Hopkins, Rech, & Zapata, 2011;Torrance & Thomas, 1994) or lack of feedback and support by the advisor or dissertation chair (Ahren & Manathunga, 2004; Ferrer de Valero, 2001; Armstrong, 2004; Caffarella & Barnett, 2000; Demaree, 2007; Eyres, Hatch, Turner, & West, 2001; Nielsen & Rocco, 2002).

This mixed-methods study explored how the writing of educational leadership doctoral students at Sibley University changed between the time they entered the program and when they completed their dissertation. The Sibley University researcher used

Microsoft's Flesch-Kincaid tool to measure grade levels, percent of passive sentences,

and other components of the drafts of EdD graduates' writings. The researcher collected

qualitative data through interviews, conducted by the researcher, related to the student's

perception of their dissertation writing experience. Many completers of the Doctoral

program have positions or will have positions that lead teachers who are responsible for

improving school achievement. According to the National Writing Project and Nagin

(2006), there is a connection between the ability to write and the ability to teach and lead

schools. The purpose of this exploratory research was to gain a deeper understanding of

changes and possibly uncover information that faculty could use to improve the doctoral

students' writings.

Background of the EdD Student

Writing and researching should not be new to a graduate student; however, in the

researcher's experience as a doctoral student, writing a dissertation is unlike any other

experience. According to Harrison and Beres (2007), writing is a major skills problem

for students even beyond graduate school. Wynn (2003) and Merritt (2002) reported

failure to complete the doctoral degree for many students centered in difficulties with

writing and completing the dissertation.

Students enrolled in EdD programs are not a typical full time doctoral student

immersed in reading and research in the library, but are adults holding down full time

jobs and more than half are married which may create additional responsibilities (Butin,

2010; Everson, 2009; Golde, Walker, & Associates, 2006; Mountford, 2005; Perry &

Imig, 2008). The doctoral student in education is an experienced educational practitioner

who may not have the *graduate skills*, skills to make it through the process, required to

complete the dissertation process (Butin, 2010). See Table 1 for the national data profile

of doctorate recipients in education. The average age for doctorate recipients in all fields

(life science, physical sciences, social sciences, engineering, humanities and other non-

science and engineering fields) is 32, several years younger than the average age of

doctorate recipients in education (National Science Foundation, Division of Science

Resources Statistics, 2010, Table 50). Therefore, the gap between EdD student's last

enrolled in coursework is a larger gap than doctorate recipients in other fields.

Table 1

Statistical profile of doctorate recipients in Education [EdD & Ph.D.]:2009

Number of all doctorate recipients	6,531
	Percent
Sex	
Male	33.1
Female	66.9
Marital status	
Never married	15.0
Married	60.0
Marriage-like relationship	4.3
Separated, divorced, widowed	8.5
Unknown	12.2
	Median years
Age at doctorate	40.5
Time to doctorate	
From bachelor's	16.2
From graduate school start	12.3
Male doctorate recipients (number)	2,160
Female doctorate recipients (number)	4,371

Note. Source (National Science Foundation, Division of Science
Resources Statistics, 2010, Table 50)

        With the national attrition rate in the range of 40% to 50%, universities in the

United States are asked to explain why doctoral students are not completing the programs

(di Pierro, 2007). According to di Pierro (2007), few graduate schools' program designs

meet the needs of the doctoral student, nor the faculty needs, when it comes to writing a

dissertation. Best practices established and followed by The Graduate Center for

Research, Writing, and Proposal Development at Western Michigan University (WMU)

included formal workshops and trainings specific to technical elements of dissertation

writing, writing strategies, and mentorship for the doctoral student and the dissertation

chair. The Graduate Center at WMU developed a list of the findings to address because

of analyzing data by departments. The institutional overall aggregate attrition rate was

40.5%, but the breakdown by ethnicity and gender revealed male African Americans

increased to 50%. (di Pierro, 2007). The Sibley University researcher will not go into

detail about the Graduate Center recommendations from the findings due to the lengthy

list but the recommendations involved guidelines for both the student writing the

dissertation, as well as training for the dissertation chair (di Pierro, 2007, pp. 373-374).

Many universities have no formal training for faculty working with doctoral

students who are writing the dissertation and most faculty who chair a dissertation do so

based on their one time experience of writing their dissertation. Willis, Inman, and

Valenti (2010) stated the role of the dissertation chair must move from the "parent-child"

relationship" to the "critical-friend" that makes the doctoral student feel valued;

however, too many dissertation chairs are supervising as a parent because that is the way

it was modeled to them. The dissertation chair may have had little support during the

writing experience and though he or she wanted more, will repeat the experience for

doctoral student under his supervision (Willis et al., 2010). Golde (2005) found the

expertise of the faculty member supporting the research writing as an important

component when examining why doctoral students left their programs at different

schools. The faculty involved with dissertation writing, which are responsible for guiding the student through the complete process of writing, often do not provide writing proficiency instructions to the doctoral students. The faculty members' excessive workloads, lack of confidence to teach writing proficiencies, lack of writing experience (see Table 2), or lack of training that prepares for all aspects of the responsibility of chairing a dissertation impact the writing of a dissertation (di Pierro, 2007; Hadjioannou, Shelton, Fu, & Dhanarattigannon, 2007; Hill, Archer, & Black, 1994; Wynn, 2003).

Research setting. Sibley University's doctoral program began in fall 2007 with 30 females and 23 males enrolled. Since the beginning of the program through the 2009-2010 school year, a total of 188 females and 126 males had been accepted. As of spring 2011, 58 had completed the doctoral program. However, over 100 students had completed everything but the writing of the dissertation (Kania-Gosche, Leavitt, & Wisdom, 2011). According to the graduate school catalog, the doctoral student has five calendar years to complete the degree. Matriculation is the date of the first day of the first term in which the student begins the graduate program.

Research and dissertation writing courses are part of the EdD program curriculum in most universities, which is a natural deposit for writing collection and analysis. The results of the study are generalizable for EdD programs as far as analyzing writings from four data points and interviewing EdD students for the writing perspectives. Within the population of 32 EdD May 2011 graduates and a group of eight EdD candidates who defended during summer and fall 2011, a convenience sample of 17 took part. The study used a convenience sample, which comprised a group of 11 who responded to an initial email request to participate in the research from the EdD graduates who walked in the

May 2011 graduation ceremony and a group of six EdD candidates who defended their

dissertation in summer 2011 or fall 2011. This exploratory study examined dissertation

drafts to see if there were significant differences in grade level and percentage of passive

sentences. Because of the unique nature of each doctoral program, the quantitative

results of this study may not be generalizable to other programs; however, the method

may be useful to other doctoral programs for assessing their own student writings.

The academic doctoral degree programs exist in 539 institutions in the United

States according to the National Center for Educational Statistics, with over 200,000

students enrolled in 2001. Completing the academic doctoral degree averaged 7.6 years

from enrolled time to completion in the doctoral program (National Center for

Educational Statistics, 2004). "Students in education took more time away from school

between degrees than did students in sciences" (Nettles & Millett, 2006, p. 132). Data

gathered from Nettles and Millett (2006) is found in Table 2.

Table 2

Total time to complete doctoral degree and total time to degree

	Total time to complete doctorate degree[a]	Total time to degree[b]
	mean (years)	mean (years)
Education	10.3	12.4
Humanities	8.6	9.2
Social Sciences	7.4	8.13
Engineering	6.2	6.9
Physical Science	5.9	6.1

Note. Adapted from (Nettles & Millett, 2006, p. 132).
[a]Total time registered in doctoral program.
[b]Total time from completing the bachelor's degree to completing the doctorate.

"Usually the dropouts were those who completed the coursework and exams but not the

dissertation" (Ogden, 2007, p. 1). When comparing law degree to academic doctoral

degree, the average number of years to completion is four years, and a dissertation is not

required (Ogden, 2007). Attrition rates in both law and medical schools are as low as 5

to 10% (Lovitts & Nelson, 2000). By 2003, the average number of years to completion

for academic doctoral degrees has continued to rise to 8.3 years and yet the requirements

for coursework and comprehensive examinations have changed very little (Ogden, 2007).

"It is no wonder that the average doctoral student has come to view the dissertation as the

academic equivalent of Mt. Everest wall" (Ogden, 2007, p. 2). The National Science

Foundation, Division of Science Resources Statistics specific statistical profile of

education doctorate recipients in 2009 aligned with Ogden's (2007) calculation of the

time to doctorate averaged 8.3 years (National Science Foundation, Division of Science

Resources Statistics, 2010, Table 50). A variety of books about how to understand

management of the doctoral dissertation has been published (Davis & Parker, 1997; Cone

& Foster, 2006; Ogden, 2007; Pyrczak, 2000; Krathwohl & Smith, 2005) yet many

doctoral students are all but dissertation (ABD).

Statement of Problem

Mina Shaughnessy stated, "Few people … can comfortably say they have finished

learning to write. Writing is something writers are always learning to do" (as cited in

National Writing Project & Carl Nagin, 2006, p. 14). di Pierro (2007) identified the

writing of the dissertation as a major obstacle in completing the doctoral program.

Nettles and Millett (2006) decided not to study the dissertation in their book about

obtaining the doctorate because "an important area of the doctoral experience needing

more focused attention is the dissertation process. The variability of this document,

depending on institution, department, and individual committee members, seems to

constitute a research project in and of itself" (p. 44). The Sibley University study only

examines one EdD program rather than generalizing the experience across institutions, campuses, or programs. The entrance Graduate Record Examination (GRE) average score on the analytical writing for Sibley University's doctoral students is 4.8/6.0 and average score on university writing assessment is 30.6/36. Nettles and Millett (2006) wrote "perhaps it is encouraging that any perceived deficiencies that students exhibit upon entering doctoral programs, such as relatively low GRE scores and type of undergraduate institution, were overcome by perseverance, mentoring, and assistantships" (p. 166). The researcher analyzed writing samples of students who completed the doctoral program and determined if there was a measurable change from the time they started their dissertation until the dissertation was finished. Data from the study will provide Sibley University's EdD program's structure comparative completion data for benchmarking purposes.

The success of preforming a task does not depend entirely on the knowledge and skill to perform the task, but one's own perception as to whether the task can be performed or not, especially writing (Graham, Harris, Fink, & MacArthur, 2001). Researchers Norman and Spencer (2005) from the Department of Elementary and Bilingual Education at California State University, Fullerton, wrote about the relationship of self-efficacy in writing. Negative feedback about a piece of writing can affect the writer's self-confidence and cause an adverse attitude toward writing (Hall & Grisham-Brown, 2011). An adverse attitude toward writing could hinder a doctoral student from completing the challenging task of writing the dissertation. For this study, the sample population's interviews provided an understanding of the doctoral students' perception of

their writing. The analysis of the interview compared qualitative perception of change in writing with quantitative change.

Purpose of Study

The purpose of this study was to explore and measure the possible changes in doctoral students' writings, both perceived and measurable. Drafts of graduates' dissertations from Year 1 (Capstone I)or earliest available draft, Year 2 (Capstone II), the committee approved draft, and the final dissertation were compared statistically using the Flesch-Kincaid grade level, percent of passive sentences, and average characters per word, average words per sentence and average sentences per paragraph. The researcher interviewed graduates as to their perceptions about any changes in their writing and their experiences writing their dissertation.

The doctoral students' writing experiences varied, due to each student's previous writing experiences in the workplace and in coursework, both undergraduate and graduate. Sibley University's doctoral program did not include an explicit objective or goal for improving writing proficiencies in the doctoral program unless the doctoral student fails the Comprehensive Exams, at the time of this study. Yet, a traditional five-chapter (at least 100 pages) dissertation based on an original research project is required for degree completion. This study will use the drafts of graduates' dissertations as they progressed through the program rather than standardized or comprehensive exam scores. Timed assessments, such as the GRE, rarely allow time for planning and revision. Yet, writing a dissertation is all about planning and revision, which is why the researcher used actual dissertation drafts. January 2009, Sibley University implemented the timed entrance writing examination, which means it was not available for all participants in the

study. The researcher chose to use drafts of the dissertation rather than writing for course assignments for consistency in statistical analysis.

      Importance of the study. There is little research on the topic of the doctoral students' writing proficiencies. Research on writing proficiency from elementary students through undergraduates is prevalent; however, few focused on students in graduate school (Abbate-Vaughn, 2007). The dissertation includes not only independent research, but also documentation of research and analyses of prior research on the topic along with synthesizing and justifying the decision to conduct the study. Many completers of the EdD at the researched institution have positions or will have positions leading teachers who are responsible for improving school achievement. According to the National Writing Project and Nagin (2006), there is a connection between ability to write and ability to teach and lead schools. The study revealed whether the participants' writing improved from the beginning to the end of the program. The exploratory research was to gain a deeper understanding and possibly uncover information faculty could use to improve the doctoral students' writings.

Definition of Terms

ABD. All but dissertation

Academic doctoral degree. In education, an academic doctoral degree is the highest academic degree in any field of knowledge, also referenced as the terminal degree.

Bloom's Taxonomy. Benjamin Bloom led a group to develop a model for organizing learning objectives through cognitive operations. The term taxonomy means to group, which led Bloom to name the model Bloom's Taxonomy. There are six levels of cognitive complexity moving from the least complex to the most complex: knowledge,

comprehension, application, analysis, synthesis, and evaluation. Bloom's Taxonomy, completed in 1956, impacts education today (Granello, 2001).

Comprehensive Exam. "The EdD Comprehensive Exam is an assessment of content knowledge from coursework. Students take the Comprehensive Exam the semester they are enrolled in Capstone II (EDA 77000) or the semester before they anticipate enrolling in Capstone III (EDA 77500). The EdD student must have completed or be currently enrolled in all content courses the semester he or she takes the Comprehensive Exam. The Comprehensive Exam is offered once a semester (fall, spring, and summer). Students who have grades of "Incomplete" in any course will not be permitted to take the Comprehensive Exam. Students may only take the Comprehensive Exam twice. Students should contact the EdD Department Chair for more information about the EdD Comprehensive Exam at the St. Charles campus. One study session a semester is offered for the comprehensive exams" (Researched University Handbook, 2010, p. 12).

Dissertation. A dissertation is a written scholarly document that demonstrates a candidate has done "independent research and made a contribution to knowledge with the research" (Davis & Parker, 1997, p. 15).

Dissertation Chair. The dissertation chair supports and provides guidance throughout the writing of the dissertation, which includes giving feedback on the writing in a reasonable time. The research university 2010 EdD Handbook stated:

> The chair is the coordinator of the doctoral student's dissertation committee. The chair is the student's research mentor and helps the student through the process of completing a dissertation study, offering feedback and direction on both conducting of a research study and writing up the results. The chair must be a [Sibley University] faculty member. (2010 EdD Handbook, 2010, p. 54)

Dissertation Committee. "The dissertation committee supervises the doctoral student's dissertation study and the subsequent write up in the dissertation. The student selects committee members based on their expertise in the field and in research methodology" (2010 EdD Handbook, 2010, p. 54).

Doctoral Student. A Doctoral Student is the student who has successfully completed the application for Admission – Doctor of Education form including the On-site Writing Sample and accepted.

EdD Faculty. The EdD faculty are employed by Sibley University to teach and facilitate learning with the students enrolled in the doctoral program.

Entry Writing. An Entry Writing assessment is a requirement for entry to the doctoral program at Sibley University. It is an on-site assessment developed, scored, and administered by Ed. D. faculty.

Flesch-Kincaid Readability Test. The U.S. Navy and U.S. Army used the Flesch-Kincaid Readability Test to assess the grade level of technical manuals' writing. Microsoft includes the tool in the office package, as well as the Flesch Reading Ease tool. The purpose is to help in writing at the level the intended audience can read and understand (Feng, 2010). The number can mean the number of years of education it takes to understand the writing.

Grade Level. When referring to classroom materials or public documents, the term *readability* usually refers to a numerical or grade-level score obtained by applying a mathematical formula to a sample of text (Fry, 2002). The grade level equals the grade of a student in school. K-20 reflects kindergarten through doctoral.

Passive Sentences. *Publication Manual of the American Psychological Association*

(American Psychological Association, 2010), Chapter 3, explains writing guidelines to

improve writing style. "Passive voice [sentences] suggests individuals are acted on

instead of being actors" (American Psychological Association, 2010).

Satellite location. The satellite location is an off-site location where Sibley University

provides students the opportunity to take classes.

Writing Proficiency. Writing Proficiency is the ability to express ideas effectively in

written English, to recognize writing errors in usage and structure and to use language

with sensitivity to meaning (Singleton-Jackson, Lumsden, & Newsom, 2009).

Research Questions and Hypotheses

RQ1: Is there a measurable change among doctoral students' writing proficiency

as measured by the Flesch-Kincaid readability test from four points in the program:

Capstone I or earliest available draft, Capstone II, committee-approved draft and the

completed dissertation?

RQ2: How do doctoral graduates perceive their writing has changed through the

program? To what do they attribute these changes?

Null Hypothesis # 1: There will be no difference in grade level, measured by the

Flesch- Kincaid Inventory, when comparing measures of the drafts of graduates'

dissertations from four points in the program: Capstone I or earliest available draft,

Capstone II, committee-approved draft and the completed dissertation.

Alternate Hypothesis # 1: There will be a difference in grade level, measured by

the Flesch-Kincaid Inventory, when comparing measures of the drafts of graduates'

dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Null Hypothesis # 2: There will be no difference in percentage of passive sentences utilized when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Alternate Hypothesis # 2: There will be a difference in percentage of passive sentences utilized when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Null Hypothesis # 3: There will be no difference in average characters per word, average words per sentence, and average sentences per paragraph when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation.

Alternate Hypothesis # 3: There will be a difference in average characters per word, average words per sentence, average sentences per paragraph when comparing measures of the drafts of graduates' dissertations drafts from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation.

Limitations

Data collected from one university sample decreases the generalizability of the findings. At the time of the study, Sibley University had only one doctoral program. The

researcher excluded the satellite location doctoral students from this study because the faculty, availability of courses, and student population at the satellite location were completely different from the main campus.

The researcher was interested in what needed to continue or change within the EdD program to facilitate the candidate to become or grow as an efficient and effective writer. The quantitative portion of the study required four drafts of the dissertation, which limited participants. Not all potential participants saved writing samples from the beginning of the program, which excluded the potential participant from the study. Participants were self-selected; they consented to participate in the study, and not everyone eligible to participate agreed to do so.

This study was limited because participants recalled events from the past when being interviewed. Some participants achieved the doctorate in a shorter time; therefore, the experience was more recent than others were. The interview was also self-report. The reliability and validity of the qualitative data of this study are limited to the honesty of the participants' interviews.

Participants may have had different instructors for the courses, which mean the possibility of a different approach, and a different procedure for feedback. Participants began in the program at various points. The EdD program coursework requirements and faculty change during the time participants of the study entered the program. In addition, students had differing dissertation chairs and committee members.

The researcher was a student in Sibley University's doctoral program. The availability of contacting students who had completed the doctoral dissertation was convenient through the avenue of dissertation defense announcements and access to the

Sibley University's student directory for email addresses. Request for participants was

through personal contact either after the dissertation defense or through email by the

Supervisor of Graduate Research who attended all dissertation defenses. The Supervisor

of Graduate Research had access to the database of program completers' email addresses

and sent formal communication requesting participation in the study. The disadvantage

in the student attending Sibley University's doctoral program is being completely

objective; because of vested interest there is a chance that the researcher was biased,

hence the quantitative portion of the study.

Delimitations

The participants were deliberately chosen from one institution's main campus

because of the differences from university to university or from main campus to satellite

locations. Further research could compare with the writings or perceptions of students

who had not yet completed.

Conclusion

The professors in the doctoral program at Sibley University met regularly to

discuss issues and make changes to improve the program. The study will validate

whether the programs and practices in place are improving students' writing. With that

in mind, Sibley University plays a role in developing school and community leaders who

will take a leadership role with skills, which enhance communication, critical thinking,

and analytical skills. Ideas and innovation come from skilled individuals who are

educated through doctoral programs. The department chair of the EdD program added an

optional course to students needing assistance in scholarly writing if the student does not

pass the comprehensive exam. This leads to the conclusion that the program at Sibley

University expects students to use high-level thinking and writing and if they are not proficient, help is provided.

Over the next 10 years, the number of jobs requiring a doctoral degree will increase by about 17% (Wendler et al., 2010). Sibley University is providing a program to develop leaders through the doctoral degrees and scholarly writing is necessary to complete the doctoral program; doctoral students' writing proficiency merits a study. It is imperative that each doctoral awarding institution contribute to the pool of highly educated and highly qualified candidates needed to lead schools today and in the future.

Chapter Two: Review of Literature

Introduction

Entrance criteria for doctoral programs often include some measure of writing skill, but a high score on this assessment does not predict dissertation completion. Single-Jackson et al. (2009, p. 1) claimed that "…aside from the GRE-Written [GRE-W], launched in 1999, instruments for assessing graduate student writing specifically are not national norm-based instruments, but are instead idiosyncratic to institutions and departments." The institution or department faculty assesses each candidate's writing sample in addition to a variety of other criteria including interviews, GRE scores, transcripts from previous graduate work, and even portfolios.

However, doctoral students may not have taken a class specifically about writing since their first year of college. The median age of EdD students in the United States is 40.5 years and only 10.2% are in the 30 years and under age range (National Science Foundation, Division of Science Resources Statistics, 2010, Table 24). According to Table 60, the median amount of time for doctoral students to complete a terminal degree in education administration is 14.7 years. This is much higher than other disciplines because many students take time off between a masters and doctoral degree (National Science Foundation, Division of Science Resources Statistics, 2010). "The teaching of writing itself has evolved dramatically since the early 1980s" (Leahy, 1990, p. 5). The older doctoral students' instruction in writing, as well as writing experiences, may be different from younger doctoral students' instruction due to the evolution of writing instruction, which is discussed later in this chapter. The complexity of writing and the novelty of writing being collaborative are adjustments for the writer of a dissertation

(Sallee, Hallett, & Tierney, 2011). Even if doctoral students received optimal writing instruction prior to the doctorate, the length of a dissertation and the number of individuals providing feedback is much different than typical course writing assignments. In addition, education doctorate faculty may not have formal training in writing or dissertation supervision.

Singleton-Jackson (2003) studied 97 undergraduate students' writing proficiencies; the results indicated that the writing of the college students was no better than the typical high school seniors, regardless of major or credit hours. Even though graduate school is a writing-intensive experience for some, dissertation writing is still difficult (Singleton-Jackson, 2003). "Writing well is a major cognitive challenge, because it is at once a test of memory, language, and thinking ability" (Kellogg & Raulerson III, 2007, p. 240). Improvement in writing requires feedback, but external interventions can also support the learning process (Can, 2009). The assumption that students who graduate from high school can write and that students who enter graduate program can write is flawed (Abbate-Vaughn, 2007; Cheng & Steffensen, 1996). To understand the complexity of the writing process, it is helpful to examine the evolution of theories of writing, beginning in the 1980s. During that time, the studies conducted were about the writings and writing process of students in elementary, middle school, and high school.

This literature review includes not only the evolution of models of writing but also a brief history of dissertations and EdD programs. Also addressed is a discussion of the writers' perceptions of how feedback affects their own writing and the student's relationship with the chair of the dissertation committee. Finally, this literature review

includes a section on the teaching of writing at the graduate level. All of this literature
influenced the development of the interview questions used for this study and the coding
of the interview transcripts.

History of Dissertations as Doctoral Programs Develop

During medieval times, scholarly dissertations was a marked that the person was
educated. The doctorate degree was awarded to the man who wrote a scholarly, single-
subject book or pamphlet (Hawthorn, 1954). During the 17th and 18th centuries, the
dissertation was between 12 to 16 pages and composed in Latin. The author of the work
was not the doctoral candidate, but the candidate's advisor. The doctoral candidate's
responsibility was to defend the advisor's works and was more accurately a series of
debates. The method used benefited the professor because he would use the defense as
an opportunity to print his work at the expense of the young student; however, the young
student would secure a doctoral degree (Siedlecki, 2005).

Between 1820 to 1920, approximately 9,000 Americans graduated from German
universities because the learning experience was unique and not available in the United
States (Goodchild & Miller, 1997). In 1810 the new model for research at the University
of Berlin attracted Americans because of the approach that "combined critical
assessment with a balanced concern for both scientific facts and human values"
(Goodchild & Miller, 1997, p. 19). The new model encouraged the exploration of
knowledge for its own sake (Goodchild & Miller, 1997). The German universities were
founded in Heidelberg (1385), Cologne (1388), Leipzig (1409), and Wittenberg (1502)
(Siedlecki, 2005).

In 1787 the Constitutional Convention called for a national university, but no funding was available. Finally in 1862 the legislative branch supported the creation of state universities, through the vehicle of the Morrill Land-Grant Act. American research universities began to emerge with Scottish roots, not German. The universities' emphasis were on helping the farmers grow better crops, but Goodchild and Miller's (1997) idea of allowing "students to explore knowledge for its own sake" (p. 19) was not being addressed. The connection between American universitites and Scotland came through the highly educated Scotish immigrants who served as tutors to such renown Americans as Thomas Jefferson. Jefferson and Mercer, members of Virginia's House of Delegates, played an important role in creating graduate institutions. However, the model used did not meet the same standard as Germany's universities. Graduate schools in Germany were very straightforward: in order to receive a doctoral degree a student was required to attend seminars for two years, write a thesis, and pass a comprehensive oral examination in his field. American universities' graduate schools were not successful until the leaders replicated the model Germany used, tailoring them to meet the needs and ways of the American students (Goodchild & Miller, 1997).

The doctorate entered the higher education scene in the United States as the result of Daniel Coit Gilman's efforts. After graduating from Yale, Gilman began his studies at Harvard but attended the German universities' lectures and seminars. "In 1856, Gilman published a *Proposed Plan for a Complete Organization of the School of Science Connected with Yale College*" (Goodchild & Miller, 1997, p. 20). In the plan Gilman proposed Yale offer a doctoral degree in philosophy. After a rigorous examination, Gilman was awarded a doctor of philosophy degree from Yale. Even though his studies

abroad influenced his plan, Gilman advocated that the plan for a doctoral degree in

philosophy must reflect the wants of America (Goodchild & Miller, 1997). John A.

Porter, dean of Yale's Sheffield Scientific School, requested that the doctorate candidate

create orginal research, unlike the German model of research. The doctoral degree in

America became synonymous with Yale University. The degree required completion of

a separate research study, production of a paper on the original research, achievement of

a certain level of proficiency in languages, and a successful score on a comprehensive

exam. Gilman's publication and his work contributed to the introduction of the doctoral

degree in the United States.

Doctoral programs and their enrollments, along with research universities, gained

momentum in the late 1800s through 1918. John Hopkins University was known for

advancing knowledge through research by 1875. "Clark University and Catholic

University of America opened as solely graduate institutions in 1889" (Goodchild &

Miller, 1997, p. 24). But financial difficulties caused both Clark and Catholic University

to open their doors to undergraduates. The University of Chicago was opened to

accommodate the midwest for research doctoral studies, although the University was not

exclusively for graduate students. Society's demands played an important role in the

development of programs at all of the research universities. For instance, the first 25

years of doctoral dissertations were related to science research. When America

experienced the Industrial Revolution in the 19th century, students wrote dissertations in

the following fields: chemisty, mathematics, physics, biology, and geology (Goodchild &

Miller, 1997). Requirements for dissertations today are quite different than of those

through the 1920s. Early dissertations were written for publication in scholarly journals,

without the lengthy literature reviews required of most dissertations of today (Ogden, 2007).

In 1900, the Association of American Universities (AAU) was formed to oversee the integrity of the doctoral degree, create higher standards for education in America, and develop common requirements for obtaining the doctor's degree (Speicher, 2012). The group membership included the presidents of 14 of the 24 colleges in existence at the time. One goal of the AAU was to standardize requirements for accreditation in undergraduate programs and later graduate programs. Today the AAU is still a presidentially-based organization with 61 members. Thirty-five hundred colleges and universities exist in the United States, but membership in the AAU requires an invitation. The AAU organization selects or invites only colleges and universities based on the institution's quality of excellence and research programs (Association of American Universities, 2012).

The historic event of setting institutional standards has impacted higher education for more than 100 years (Speicher, 2012). In 1915, faculty organized the American Association of University Professors (AAUP). Formal and informal organizations formed to discuss the future of doctoral education, placing more demands on universities for doctoral programs. As a result, some universities offered doctoral degrees without AAU accreditation; regional accreditation could not seem to find an effective method for accrediting doctoral programs (Goodchild & Miller, 1997). "In July 1938, the North Central Association (NCA) developed formal standards for accrediting specific graduate programs within an institution" (Goodchild & Miller, 1997, p. 30). "The Higher Learning Commission (HLC) is an independent corporation and one of two commission

members of the North Central Association of Colleges and Schools (NCA, 2012), which

was founded in 1895 as one of six regional institutional accreditors in the United States"

(NCA, 2012, para. 1). The HLC still accredits institutions today, including the site of the

research in this dissertation study.

      The dissertation document itself is as varied as the programs requiring it.

According to Ogden (2007), doctoral dissertations fall into two categories: type one and

type two. Type one describes three possibilities of dissertation research: historical and

philosophical; experimental; and exploratory and descriptive. The dissertation

demonstrates the researcher's ability to do a limited research study with the same

standards that would appear in a peer-reviewed journal in the field. A type two category

of dissertation writing is developed under the guidance of a thesis advisor. The

dissertation has to qualify as a scholary written piece, which is acceptable when

condensed for publication. The length of the dissertation is mandated by most

universities and could be as short as 20 pages (Ogden, 2007).

      Lovitts (2007) studied performance expectations for the Ph.D. dissertation. For

the most part Lovitts found that each dissertation committee decided the fate of the

dissertation, pass or fail. Yet most universities established no clear standardized

performance expectations for dissertations. "Without such performance data, faculty,

departments, and universities cannot identify and remedy weaknesses or exploit

strengths, much less make informed decisions about actions necessary to achieve

excellence in all facets of their programs" (Lovitts, B. E., 2007, p. 25). *The Ph.D.*

Completion Project, which studied doctoral attrition, advocated for institutional support

for dissertation writing because writing issues occurred throughout the dissertation

process (Sowell, Bell, & Kirby, 2010). Some issues are universal for students in any doctoral program, while others are more discipline-specific. This dissertation focuses on Doctorate of Education students.

History of Ed.D Programs

During the Progressive Era [1890s-1920s], doctoral production in the social sciences developed, including education and sociology. The first Ph.D. (Doctor of Philosophy) was granted from Teachers College, Columbia University in New York City, 1893, and the first EdD (Doctor of Education) was granted from Harvard University, 1921. Similar requirements were met by receipts of both degrees (Toma, 2002). "In practice, many programs simply used one degree or the other, usually the Ph.D., offering it to aspiring administrators and researchers alike" (Toma, 2002, p. 4). There were a total of 57 doctorate of education degrees (Ed.D) awarded during the Progressive Era from the four major research universities: Hopkins, Clark, Catholic, and Chicago (Goodchild & Miller, 1997).

Social activisim and political reform were influencing the culture of the United States. People were involved in leading reform movements, and education was a major target. The metropolitan cities were developing rapidly. Schools were being built not only in cities, but in small towns as well. More young people were attending and graduating from high schools. Emphasis on education was stronger than ever before in America. Once again the experience of America impacted the doctoral studies, and institutions created programs to meet society's needs (Tyack, 1974).

As the nation continued to grow, finding solutions to problems as a society depended upon innovative thinkers, many with a foundation of knowledge and skills

gained from higher education (Wendler et al., 2010). By 1910, 443 doctoral degrees

were granted, only 1.3% of all degrees granted (National Center for Educational

Statistics, 2004). See Table 3 for trends in the number of doctoral degrees awarded

throughout the decades.

Table 3

Doctor's degrees awarded

Doctor's degrees awarded			
Year	Total	Males	Females
1909-1910	443	399	44
1919-1920	615	522	93
1929-1930	2,299	1,946	353
1939-1940	3,290	2,861	429
1949-1950	6,420	5,804	616
1959-1960	9,829	8,801	1,028
1969-1970	29,866	25,890	3,976
1979-1980	32,615	22,943	9,672
1989-1990	38,371	24,401	13,970
1999-2000	44,808	25,028	19,780
2009-2010	68,800	33,100	35,800

Note. Source (National Center for Educational Statistics, 2004).

In 1981 the National Commission on Excellence in Education, which was created

by Secretary of Education T.H. Bell, explored problems and solutions to of educational

issues in the United States (National Commission on Excellence in Education, 1983).

The *Nation at Risk* report evolved from the study, and one of the five recommendations

reported that the role of the PK-12 school leaders had to be more than supervision and

management of the human and physical resources. As a result of the *Nation at Risk*

report, universities and colleges took a different approach in recruiting candidates for

their education leadership programs. Hoping to identify those with strong leadership

abilities, doctoral programs in educational leadership began using more rigorous

qualifications like writing on demand assessments, specific minimum scores on GRE and

GREW, and interviews (National Commission on Excellence in Education, 1999).

Programs offering the Doctorates in Education became the interest of a diverse

group of people with one focus: the EdD recipient prepared to be a future leader who can

read critically and analyze data, evaluate reports, organize schools, and develop policies

to make the necessary changes to ensure the success of schools (Goldring & Schuermann,

2009). Attention from the general public caused Deans of Education to pause and assess

doctoral programs throughout the United States especially at the beginning of the 21st

century. Gallagher, newly appointed dean at the University of Southern California (USC)

Rossier School of Education, stopped to assess the four EdD programs and two Ph.D.

programs at that institution. In 2000, Dean Gallagher with the help of a combined EdD

faculty, instead of four distinct faculties, restructed both EdD programs and the Ph.D.

programs (Shulman, Golde, Bueschel, & Garabedian, 2006). Prior to USC's

reorganization, the School of Education at the Universtiy of North Carolina at Chapel

Hill radically revised its Ph.D. and Ed. D. programs. Peabody College of Vanderbilt

University redesigned its EdD program in summer of 2004 to a cohort-based weekend

model including a strong support system to accommodate the transition (Goldring &

Schuermann, 2009). Peabody replaced the traditional dissertation with a capstone project,

which addressed " a substantial and authentic problem of practice as identified by an

organization" (Caboni & Proper, 2009, p. 67). Caboni and Proper (2009) described

Peabody College of Vanderbilt University's capstone:

> The final goal of the project is that a team of two to four students will present
>
> meaningful recommendations to the client organization and the faculty. Student

teams must negotiate entry into the organization, which requires an intense

understanding of theory and the literature, including how organizations work,

politics, social context, institutional hierarchy, norms and power. Additionally,

the project requires that students have an understanding of the relevant literature,

which is demonstrated through a targeted literature review that is used to frame

questions and evaluate results. The reviews are narrower than what one would

find in a traditional dissertation. Also, the capstone employs both qauantitative

and qualitative methodologies to answer questions posed by the teams. (p. 67)

The refocus of educational leadership programs moved slowly from one

institution to another, including the masters level programs. Levine (2005) created an

assessment framework for institutions' masters level school leadership programs and

concluded, after assessing 28 university leadership programs, that the doctorate of

education is not necessary (Goldring & Schuermann, 2009; Guthrie & Marsh, 2009;

Levine, 2005; Shulman et al., 2006). The curriculum and the process for earning the

traditional EdD and Ph.D. are similar and instead of repairing the EdD, Levine proposed

to re-tool the EdD into a new masters degree. However, others disagreed with Levine's

approach; Shulman et al. (2006) proposed a degree above the masters level and

envisioned a new doctorate for the professional practice of education called Professional

Practice Doctorate (P.P.D.). The major difference in this new degree would be that the

capstone experience would not be a traditional dissertation, but a year-long residency. In

this residency, students would prepare for assessments and the application of integrating

what has been learned during the coursework (Shulman et al.,2006). The trend of

redesigning EdD programs gained momentum among research universities focused on the role of the practitioners (Marsh & Dembo, 2009).

According to Guthrie (2009), the traditional student awarded a doctorate in education worked full time as a practitioner during the day, with extra job commitments in the evening, and attended classes on week nights or weekends. Yet data published by the Council of Graduate Schools report 94% of students working on Ph.D. completion (engineering, life sciences, mathematics, physical science, social sciences, and humanities) received financial support with teaching assistantships being the primary mode (Sowell et al., 2010). Thus, doctoral students in education may have different challenges than students in other disciplines who are not mid-career professionals at the time of their doctoral studies.

The skills required of an educational leader are also different than more content-driven disciplines. Responsibilities of the educational leader involve creating a sense of community, allowing all policies and procedures to be transparent, and supporting and building. The educational leader must prepare parents, teachers, and students for mandated educational change with support necessary to succeed (Levine, 2005). The doctoral program's challenging high standards "cannot transmit sufficient knowledge to prepare an individual both as an able practitioner and an able researcher" (Guthrie, 2009, p. 4). Leaders in education are no longer just supervisors; they lead their schools to meet rigorous state standards. The 21st century is an era of rethinking the purpose of the school; the public wants to know what schools are doing and why (Bushaw & Lopez, 2010). Higher expectations require school leaders to think critically, communicate clearly, collaborate, and guide others to produce students who are self-directed learners.

School leaders are the decision makers who must work with challenges in order to improve education (Levine, 2005). The conventional education school doctoral degree program did very little to support the evolution of the school leaders' role, triggered by the release of *A Nation at Risk* (Guthrie, 2009).

In 2008, the Higher Education Act of 1965 was amended to establish grants to fund postsecondary institutions' reformation and create innovative programs to support postsecondary education for traditional and nontraditional students (U.S. Department of Education, 2011). The Carnegie Foundation received a $700,000 grant from the Fund for the Improvement of Postsecondary Education (FIPSE), which supported projects that could be turned into a model to be used in other higher education programs (Carnegie Foundation, 2012). The Council of Academic Deans, made up of 25 Schools of Education, teamed with the Carnegie Foundation for the Advancement of Teaching (CADREI) to restructure the requirements for education doctoral degree for the purpose of making it relevant to the job of the school practitioner. Imig, Director of the Carnegie Project on the Education Doctorate, stated there is a distinction between the jobs acquired with a Ph.D. and an Ed.D, though the structure of each program varies very little (Carnegie Foundation, 2012). Guthrie and Marsh (2009) stated the tens of thousands EdD degrees awarded annually do not prepare the educator sufficiently to make the much needed changes in the PK-12 education system.

Considering the average age of the participants in the study at Sibley University, 42 years old ranging from 27 – 64, the exposure to the writing process varied extensively. For the sake of this study, the models of writing described here are the possible popular

writing theories and writing instruction for the participants of the study based on theories in use at the time.

Models of the Writing Process

The aim of this section is not to present every model of the writing process but to highlight the theories of the prominent researchers. The models of the writing process discussed within are not models of dissertation writing specifically, but dissertation writing should still apply. In 1980, Hayes-Flower published a model of the writing process (Alamargot & Chanquoy, 2001; Becker, 2006; Flower & Hayes, 1981). Composition theorists Hayes and Flower's objective was to find ways to instruct others on how to write. Before 1980, the writing model was a linear sequence of planning, putting ideas into sentences, and then sentences into paragraphs. Hayes and Flower described writing as a process and explained the various steps involved beyond the traditional linear sequence (Becker, 2006). The researchers maintain that writers need to revisit what was planned and what was written; that there must be a circling back process, a reviewing process consisting of reading and editing (Alamargot & Chanquoy, 2001). The complexity of the writing process and the development of writing expertise challenged Hayes (1996) to expand his theory to recognize working memory plays a role in planning, translating, and revising.

The 1980 Hayes-Flowers model had three major components: task environment, cognitive writing process, and the writer's long-term memory. Fifteen years later, Hayes developed a framework that modified the work from 1980 with additions. The original work recognized Herbert Simon's influence on the understanding of written problems in texts. The Hayes-Flowers model included two aspects of written text comprehension:

understand and attend. The aspect labeled "understand" referred to the "processes by

which people build representations when reading a text" (Hayes, 1996, p. 2). After

building a level of what the text represents, the reader of the written text decides what is

most important in the text and it is labeled "attend." However, the 1995 Hayes model

had four major differences. Hayes model emphasised the role of the working memory in

writing. The memory takes on a central role in the writing process and writing is not

possible without it. A second difference is the inclusion of visual-spatial understanding,

represented in the form of pictures, graphs, or tables. Third, motivation and affect in the

framework hold a significant place. Fourth, the cognitive process section changed from

revision to text interpretation, planning became reflection, and translation became a

general text production process. Hayes continued to research in order to develop a

clearer and more comprehensive description of writing processes (Hayes, 1996).

      Producing a dissertation involves a complex set of steps: completing an

exhausting review of the dissertation topic literature, collecting the data for the study,

synthesizing the results, interpreting the results, and drawing conclusions, all of which is

woven together as a scholarly piece. The process of writing a dissertation literature

review involves what Hayes (1996) has identified as the working memory; the mind must

hold information from a variety of resources while searching for more content to make

connections. The reseacher must make a conscientious effort to analyze and synthesize

the current studies on the topic of the dissertation, as well as past studies--an example of

Hayes (1996) cognitive process of text interpretation. For the most part, the writing of a

dissertation is a once in a lifetime experience, and for the most part, the writer operates

independently. As Hayes (1996) pointed out, motivation, whether intrinsic or extrinsic,

plays a key role.

To expand the research in the area of the importance of the revision process,

Scardamalia and Bereiter began studying the writing process soon after Flowers and

Hayes. The focus was on expanding Hayes' cognitive process of revision. In 1983, their

model compare, diagnose, and operate (CDO) was in the developmental stages and was

later refined in 1985. The model came about from the idea that when a writer is reading

from a page, he or she is reading from the mental version. In other words, often the

author does not see what the words on the page say but sees the mental version; an

example of this would be when a person does not see typos in his or her own work

(Becker, 2006, p. 26). The CDO process began with re-reading what has been written to

check if the words matched what the writer meant to write. If there was a problem, the

writer diagnosed what needed to be changed. The writer next considered the revision

option and made the "operation" by rewriting (Beard, Myhill, Riley, & Nystrand, 2009).

CDO falls into what is referenced in *The SAGE handbook of writing development* as a

knowledge-transforming model. The writer must recognize that there is an error and then

decide on a possible revision choice (Becker, 2006).

Expert writers more easily make revision choices and recognize errors. The

research studies were conducted primarily with elementary children and middle school

students. However, studies conducted with high school graduates found their writing to

be below proficiency, and graduate students were, at the most, perceived as capable of

only basic writing with the ability to summarize journal articles but included little critical

thinking (Singleton-Jackson, 2003). Unfortunately, basic writing ability does not always

translate into the skills needed for dissertation writing (Harris, 2006). Granello (2001)

noted typically graduate students are trained on conducting a library search, how to read

research for understanding, and how to write in *American Psychological Association*

(APA) format. What seems to be missing is a formal, intentional class to teach students

how to use high order thinking and writing skills necessary to write one of the important

parts of a dissertation, the literature review (Granello, 2001).

Hayes' (1996) contribution of the importance of the working memory played a

significant part in Scardamalia and Bereiter's CDO model. The recognition of the role

that knowledge played throughout the revision process evolved. The working memory

can be overloaded with the complexity of revising, planning, and translating information

in order to compose new text. For example, when writing a literature review, a student

may have difficulty remembering each author and study without notes,which prohibits

effective writing from taking place. In order to understand what role knowledge played

in the writing process, the cognitive operation of remembering was studied by

Psychologist Alan D. Braddeley in 1986 (Becker, 2006). The results of Braddeley's

studies expanded Flowers and Hayes model by focusing on the reviewing process using

more of the working memory than originally thought.

Studies in the 1980s concentrated on the relationship between cognitive processes

and the writing process. The focus changed in the 1990s to the connection of the

working memory and the writing process (Becker, 2006). Braddeley's (Becker, 2006)

key assumption is that speaking and writing involve both the planning of ideas and the

translating of ideas into sentences. Braddeley's model of the working memory included

three components: the central executive and two slave systems. The central executive

supervises and controls the flow of information to and from the slave systems. The slave systems, known as the visuo-spatial sketchpad and phonological loop, are short-term memory storage devoted to visual, spacial, and verbal information (Kellogg, 1996). As the term implies, the visuo-spatial sketchpad helps the learner retrieve information seen with the eye and which takes up space, for instance when using electronic data bases for research purposes. When the data bases are searched often enough, the path is stored in long term memory, and it takes little short term memory to begin a different search in the familiar data bases. The visuo-spatial sketchpad input came from sensory memory along with the phonological loop which stores verbal information. The phonological loop is made up of two parts: the store and the articulatory control process. The researcher hears the directions on how to locate the electronic data bases which enters the store. The articulartory control process stores the directions in a loop that is played over and over and it is held in the working memory (Baddeley & Hitch, 1974). The central executive scrutinizes what information is stored and interjects cognitive processes during the writing procedure. According to Braddeley, planning and decision making are part of the working memory and used during the review process when writing (Hayes, 1996).

Hayes continued to revise his model, focusing on the evaluation of the quality of the writing. Once a problem is uncovered, the writer draws from resources stored in the long-term memory. The experienced scholarly writer is familiar with citing sources, so the skill stored in the long-term memory will take effect and not impede the progress. Experienced writers have developed the skills of composing and editing which frees space in the overall memory capacity. Therefore, Hayes believed the expert writers employed their working memory more effectively than the novice writers (Becker, 2006).

The expert writer's experiences and background knowledge were automatically used during the writing process, as well as the skills to write with fluency and quality. Hayes (2001) reflected on Wallace's study on the metacognitive factors of experienced college writers related to their revision practices and the task definition. The task described to a control group was to simply make the text better; in contrast the experimental group's task description was to globally revise the same text. The revisions were analyzed, and the result was the experimental group did more and improved the writing (Alamargot & Chanquoy, 2001). The study showed that the use of intentional directions made a difference in the learners' automatic awarness of how the task wasaccomplished. The novice writer often delays revision due to a lack of background knowledge, lack of grammar skills, or lack of understanding the task definition.

Rijlaarsdam and van den Bergh (1996) contributed to the body of knowledge incorporating time into the writing process. Their design, first developed in 1994 and later refined in 1999, monitored when cognitive processes occurred. The model was consistent with Hayes and Kellogg's models, including basic writing activities and the role of the working memory. However, van den Bergh and Rijlaarsdam (1996) believed the improvement of writing hinged on the different cognitive strategies developed during different approaches to writing. Van den Bergh and Rijlaarsdam stated, "One of the features of a writing process is the continuing changing task situation. Because of the impossibility to observe mental representations of task situations, we propose to indicate changing task situations by the variable time" (1996, p.107). The cognitive activities are interrelated with no order: "the writing assignment, rereading written text, translation of meaning into text, and generation of ideas" (Becker, 2006, p. 33). The writing task is

addressed individually and the cognitive activities are prusued individually. The writier

that has a phleora of developed writing strategies will attack the writing task differently

than those who are not as experienced with writing strategies. For instance, the EdD

student writing a dissertation that has had experience with writing literature reviews will

not have to continually go back to explemar documents to review the structure of a

literature review. To some degree, the written assignment of writing a dissertation

incorporates a variety of instruction regardless of the source. The results of Van den

Bergh and Rijlaarsdam's (1996) study explained the cognitive activities connection

through the three component model for writing.

The model for writing was designed for monitoring when various cognitive

activities occurred and consisted of three components. One component is labeled

executive component, which included organizing content, generating text or evaluating

ideas. The *monitor component* is the domain for transfer of knowledge. The third

componet is the *strategic knowledge* that stores cognitive stategies. Van den Bergh and

Rijlaarsdam's (1996) model emphaised the memory of the cognitive strategies. The

executive component relied on the *monitor component* to transfer *cognitive strategies* in

order for the writer to organize content, generate text or evaluate ideas. During the

1990s, the central focus on how writing expertise developed was cognitive strategies and

the working memory capacity (Becker, 2006).

Through the Models of Writing (2001) investigated a large number of studies

related to writing in a variety of fields including speech and linguistics, composition

research, and cognitive psychology. The architecture of processess in writing models can

be divided into three divisions: planning process, translating process, and revising

process. Planning process establishes a writing plan that could be part of the working

memory from the writer's past experience, or the writing plan could be information

relayed from the task environment. The dissertation writer has spent time reading about

the topic of the study as well as gained background knowledge about the information that

should be included in each chapter; the writer then creates an outline to begin the

planning process. The task environment, according to Hayes (1996), included the topic,

audience, and motivational cues. Translating process retrieved knowledge from the long

term memory and research. The knowledge was converted into correct sentences by

means of grammatical processing and lexical cues. The reviewing process examined how

the words and grammar met the writing goal (Alamargot & Chanquoy, 2001). According

to Hayes, after Alamargot and Chanquoy laid theoretical contributions to writing research

side-by-side, modeling of writing behavior is a still new field for researchers as compared

to the field of psychology which had more than a 100 year head start (Hayes, 2001).

Hayes (2001) encouraged research studying writing in practical settings and developing

software that would be a tool to improve writing.

Many times the first writing a child does is to write a story. The writing

experience is an enjoyable task for the most part with little, if any, revision necessary.

When the purpose of the writing shifts and the task definition becomes more complex

with higher expectations, Rijlaarsdam and van den Bergh (1996) point out the importance

of helping students rather than punishing them for bad writing. Early experiences with

writing may influence the students' perceptions of their own writing for the rest of their

academic career.

Writers' Perceptions of their Writing

Throughout a writer's development, patterns and writing strategies evolve, as well as confidence about the writing outcomes and the amount of value placed on the writing (Lavelle & Bushrow, 2007; Norman & Spencer, 2005). Writing the dissertation is one of the main goals in a doctoral program along with completing assigments throughout the coursework (West, Gokalp, Pena, Fischer, & Gupton, 2011). The program is designed to develop strong academic writers in specific knowledge of content for possible positions as a professor who will continue to research and publish (Kamler & Thomson, 2006). Writing is a task that is individualized and developed mostly through formal instruction and improved when supported by the graduate instructor (Demaree, 2007; Eyres et al., 2001). However, few studies have been conducted on the writing process of graduate students at the doctoral level. Lavelle and Bushrow (2007) examined the approaches of academic writing with graduate students at the masters level. The purpose of the study was "to develop a psychometric model of graduate writing processes, and a reliable inventory to assess those processes" (Lavelle & Bushrow, 2007, p. 807). One finding of Lavelle and Bushrow (2007) was that graduate students had a unique connection to their writing (intuitive factor), almost as if they could hear what they were writing which was not found to be true of the undergraduate writer. The *Inventory of Processes in Graduate Writing* had three statements that were classified as intuitive factors: No. 6, I can hear my voice as I reread papers I have written; No.24, I visualize what I am writing about; No. 25, I can hear myself while writing (Lavelle & Bushrow, 2007, p. 821). According to Lavelle and Bushrow (2007), graduate students who strongly agreed with these three

statements believed that writing was a tool for making meaning, and understood the depth

of the writing process.

The tool used in Lavelle and Bushrow's (2007) study was a 67 item questionaire,

including 11 questions from Torrance's survey, given to 421 graduate students enrolled

in a required masters level course. Torrance, Thomas, and Robinson (1994) clustered his

students into three groups when it came to writing: planners, revisers, and mixed

strategists. Lavelle and Bushrow's (2007) results revealed seven factors "reflecting

students' approaches to writing as linked to beliefs about academic writing and

strategies" (p. 811). The seven factors exposed components which validated the

differences in graduate students' writing beliefs, placed in Figure 1.
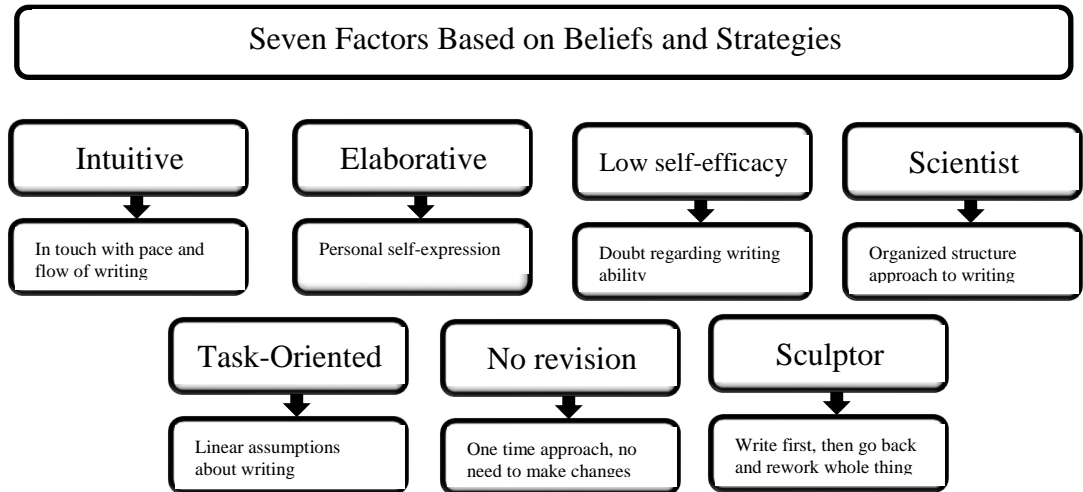
Figure 1: Seven factors

Note. Adapted from source Lavelle, E., & Bushrow, K. (2007, December).

Twelve minutes of class time was devoted to completion of *Inventory of Graduate Writing Processess* in Lavelle and Bushrow's (2007) study. "Participants also completed an academic research paper on a self-chosen topic related to teaching and learning in the classroom" (Lavelle & Bushrow, 2007, p. 815). Trained raters who used a holistic rubric, aimed to assess the overall proficiency rate of the paper, assessed students' research papers. A suprising emergent of the study was the strong role the intuitive strategy played to predict the qualitiy of strong academic writing. "Only one variable, intuitive, was found to be predictive of the quality of writing ($\beta = 271$, $p < .001$), with 8% of the variance accounted for" (Lavelle & Bushrow, 2007, p. 862). Lavelle and Bushrow (2007) believed the exposure to research articles and exemplary models of scholarly writing caused the graduate student to hear or envision their own writings.

There is a stong link between how teachers teach writing and the attitude teachers have about their own writing according to Hall and Grisham-Brown's study (2011) with

preservice teachers who were completing their student teaching. Writing in and of itself

is not a confidence builder for many learners. Attitudes evolved over time, connected to

the writers' experiences, which shaped the beliefs of whether the writer felt confident or

not in his or her own ability to write well. Confidence in writing ability,or lack thereof,

is part of the way writing instruction is delivered by writing instructors (Hall & Grisham-

Brown, 2011). Norman and Spencer (2005) stated the pedagogical decisions about

writing are shaped by the preservice teachers' beliefs toward writing, due to the teachers'

own writing experiences and instructions. Hall and Grisham-Brown's (2011) study

participants consisted of 14 preservice teachers in their final semester of their teacher

education program, which involved student teaching and a seminar. A focus group met

twice where preservice teachers were asked 10 open-ended questions; the first eight

questions were from a survey developed by Chris Street. Street (2003) concluded from

his study that the preservice teachers' attitudes about writing determined what took place

in the classroom, teachers with a passion for writing had a lot more to offer their students

than did the reluctant writers, as far as writing instruction was concerned.

The doctoral candidates come into the program with writing experiences and have

been exposed throughout their education to instruction in writing from a variety of

instructors, and some of the candidates have taught writing in their own classroom.

Their opinions about their own ability to write well, or not, is well established, which is a

variable in dissertation writing. Self-confidence in general "affect[s] people's choice of

activities, how much effort they expend, and how long they will persist in the face of

difficulties" (Bandura & Schnunk, 1981, p. 587). In theory, a strong sagacity of efficacy

in writing does not necessarly mean the task of dissertation writing will be easy either,

but the chances of the task being completed is more likely due to "the evolution of beliefs to attitudes , attitudes to intentions, and finally intentions to actions" (Fishbein & Ajzen, 1975, p. 149). Attitudes toward the writing process are impacted by the right kind of feedback, which is discussed in the next section (Can, 2009).

Feedback

Caffarella and Barnett (2000) gathered data on 45 doctoral students' perceptions of feedback received when enrolled in a scholarly writing process course. The findings of the study revealed that the most powerful component in learning how to write a scholarly work was the feedback received from peers and professors. Overall, students admitted that at times, it was frustrating to receive the feedback and even frightening to give the feedback to their peers, but over time the anxiety dissipated. A level of confidence developed where the participants in the study used the critiques as a means of recognizing the value of their own writings through practice and with time. Demaree (2007) noted undergraduate students used feedback to make positive changes in their writing, even though the changes would not affect their final grade. According to Kumar and Stracke (2007), written feedback is another way to train academically, especially in writing a dissertation. The written feedback stimulated critical thinking and became a vehicle to communicate ideas (Kumar & Stracke, 2007). Gange (1985), an American educational psychologist, pointed out that feedback is part of the nine events of instruction. The assumption about the connection between types of learners and the specific types of instruction required to best motivate the learner included the importance of providing feedback, regardless of the age of the learner, especially when it concerns writing (Gagne, 1985).

Irrespective of the discipline at the doctoral level, writing plays a major role in meeting the expectations of the program. Eyers, Hatch, Turner, and West (2001) studied 15 doctoral students in the school of nursing. The writing experiences of the doctoral students ranged from published authors to weak writers with little or no experience in basic editing. Eyres et al. (2001) found that the feedback received from the instructors was viewed by the students, as well as the instructors, as a means to help the student formulate questions and use the research as evidence for answering the questions (Eyres et al., 2001). Cho, Schunn, and Charney (2006) studied undergraduates' writing as well as graduates' writings, who were at the beginning of their programs. The findings of the study validated graduate students accepted feedback from peers but did not necessarily make the suggested edits or apply the advice. However, feedback from the instructor appeared to point out the problems with little directive on how to fix the problem, which frustrated the writer. While students can easily be shown how to find passive voice in their paper, few professors can help them rewrite to avoid it. Praise from instructors proved to be motivational for the graduate level student. Though the participants in the study were not doctoral students, the general assumption among researchers is that the same results apply (Can, 2009; Cho et al., 2006; Demaree, 2007; Kumar & Stracke, 2007).

Relationship with Chair and Committee

Research supervision plays a major role in completion of the dissertation, and according to Armstrong (2004), completing the dissertation writing is strongly linked to the doctoral student's relationship with the chair and committee members. Armstrong studied 208 students and dissertation chair dyads at a business school in the UK and

found that chairs that formed trusting relationships, collaborated, and led the writing

process in logical and coherent stages positively influenced the success and completion of

the dissertation (Armstrong, 2004). Nerad, director of graduate research in the Graduate

Division at the University of California, Berkeley, and Miller (1996), a senior writer in

the Graduate Division Research Unit in the same university, investigated "doctoral

student attrition in order to increase student retention" (p. 61). The Berkeley study

revealed that one major reason for leaving the doctoral program when the student was

working on writing the dissertation was "poor adviser-student relationships" (Nerad &

Miller, 1996, p. 70). Ferrer de Valero (2001) worked with experienced faculty who had

five or more years of research and teaching, and graduate students working on their

dissertations to find factors which imparied completion of writing the dissertation. The

change of adviser, who served as dissertation chair, had no affect on the time of

completion of degree; however, the student and adviser relationship postively affected the

time of completion of degree. Ferrer de Valero (2001)reported "the most common words

used to describe student-adviser relationship were: 'excellent,' 'nurturing.' 'mentoring,'

'caring,' 'loving,' and 'exceptional'" (p. 356). The chair's involvement during the

doctoral student's writing was the most important factor found in Ferrer de Valero's

study that impacted the time to completion.

  Willis et al. (2010) stated the importance of the expectations of the doctoral

student, as well as the expectation from the dissertation chair are crucial to the

relationship. One of the major components between doctoral student and dissertation

chair and committee is the balance of power, a consensus on who is the final say about

dissertation decisions (Willis et al., 2010). Watts (2008), member of the faculty of health

and social care from The Open University, London, UK, studied the part-time doctoral

student and concluded the successful dissertation chair, also refered to as the supervisor

of the doctoral student, focused on commication, planning and empathy as a means of

support. The dissertation chair has to individualize the assistance in order to be a benefit

to the doctoral student during a period of writing the disseration, which can cause the

student to feel isolated and frustrated (Watts, 2008).

Communication between doctoral student and dissertation chair played a

motivational role toward dissertation writing according to Goulden (1991). Students'

preceptions of dissertation writing had been reported as an isolated, painful chore

(Abbate-Vaughn, 2007; Burgoine, Hopkins, Rech, & Zapata, 2011; Ferrer de Valero,

2001; Nielsen & Rocco, 2002; Singleton-Jackson et al., 2009). But the dissertation

chair's relationship with the student can be a "make-or-break factor in the dissertaton

process" (Spillett & Moisiewicz, 2004, p. 247). Wisker (2005) said,

> Supervising research demands that we too, as supervisors, develop a range of
>
> research related and interpersonal skills: we must align our practices and lerning
>
> behaviors with those of our students, nurture, prod, push, support, encourage,
>
> insist and guide them, and then encourage independence. It's a tough job, but
>
> endlessly rewarding. (p. 25)

Though most faculty who serve as a dissertation chair have had no formal training, the

support through building a trusting and supporting relationship with the doctoral student

impacted completion of the dissertation (Watts, 2008). The dissertation chair is not the

only support but can direct the doctoral student to other developmental programs, peer

support systems, writing groups, writing centers, or specific writing courses when

available (Wisker, 2005; Wisker & Savin-Baden, 2009).

How Writing is Taught in Graduate School

Scholarly writing instruction is rare in graduate programs, the doctoral graduates

hired as professors often lacked research and writing skills, which made it nearly

impossible to deliver writing instruction (Mullen, 2006; Nielsen & Rocco, 2002). Due to

the uniqueness of higher learning institutions' perception of the best way to help

students' writing competence, the researcher has chosen to write a short synopsis of some

of the writing courses taught in a few doctoral programs. Graduates are expected to have

already mastered the skill of writing clearly and fluently; therefore teaching writing in

graduate level programs is unique rather than the norm (Abbate-Vaughn, 2007; Alter &

Adkins, 2006; Cheng & Steffensen, 1996). According to Aitchison (2009) remedial work

addressed individual skills deficit and "pedagogies that embed learning to write within a

relevant scholarly context will be more effective" (p. 907).

Mullen (2006) was clear about universities responsibilities to students in regards

to improving writing. University faculty members need to examine the instructional

goals and decide where teaching writing best fits within the doctoral program. One

method of teaching the writing process for master's and doctoral programs is the

workshop approach used by Mullen, Thomas, and Stevenson (Mullen, 2006). Mullen

(2006) described his best writing practices for graduate students that have evolved

throughout his studies. Though the list of best practices is simple at first glance, Mullen

did acknowledge, "that as difficult as it may be to learn how to write, learning to teach

writing may be even more daunting" (Mullen, 2006, p. 33). Inquiry strategies

incorporated into writing activities enhanced critical thinking and increased opportunities

for discovery along with collaboration with peers and instructors. Writing improvement

comes not only from knowing the parts of speech and grammar rules, but also from

learning how to question, analyze, synthesize, evaluate, and interpret the readings

(National Writing Project & Carl Nagin, 2006).

University of California, Los Angeles (UCLA) bemoaned the fact that scholarly

writing was lacking and developed a course to teach academic writing in 1996 (Kamler &

Thomson, 2006). The weekly writing course required students to bring three to five

pages of their own writing (not all were dissertations) where it was read aloud, assessed,

and discussed by peers and an instructor. The effects of the course were long term partly

because as students realized the course was not for debating skills in writing but a place

to read writing aloud, listen, and talk about how to make the writing better (Rose &

McClafferty, 2001). In essence, " they came to understand that writing is something you

can work on" (Rose & McClafferty, 2001, p. 29).

Belcher (2009), successful editor and published author, was asked by UCLA

Extension to teach a journal-article workshop for graduate students and faculty as a result

of the alarming statistics that came from the UCLA Higher Education Research Institute

See Table 4 for results of surveying 40,000 faculty from institutions in the United States.

According to Duffy's (2002) study, modeling and guided practice using the instructors

own writing produced positive results regardless of the task assigned. Yet we can assume

that many professors involved with students writing dissertations are not spending time

writing for scholarly publication, which is another example of the findings of empirical

resarch not included in daily practices.

Table 4

US faculty survey about their own writing

26%	Professors spent 0 hours per week writing
27%	Professors never published a peer-review academic article
43%	Professors had not published any piece of writing in the past two years
62%	Professors who had never published a book
25%	Professors spent more than 8 hours every week writing
28%	Professors had produced more than two publications in the past two years

Note. Source (Belcher, 2009)

Belcher (2009) created a six-week course, in 1998, to help with revising non-fiction work; however, students who enrolled in the class were searching for direction on how to write a dissertation or how to teach academic writing to advisees. The following semester, Belcher created a new course, listed as Writing and Publishing the Academic Article," which filled immediately with a waiting list of 200 students. Though the bookstores are filled with self-help books on how to get through a dissertation, Belcher experienced the need for teaching the steps to becoming a published author, many times the first step is to complete the dissertation, as well as moving to writing for publications (Belcher, 2009).

A specific teaching process used in a program, titled the Scholarly Writing Project (SWP), gathered data from the perspective of how feedback impacted 45 doctoral students while teaching the students how to write a scholarly work (Caffarella & Barnett, 2000). All 45 doctoral students were enrolled in the educational leadership program and were part of five cohorts at one university. The study did not go into detail about exactly how the writing was taught but referenced that the students stated prior to working on a doctorate in education, they had no experience in writing in a scholarly style and a lack of

confidence on their own ability. The SWP was part of a required course taken early in

the doctoral program with three major purposes:

>   (1) to investigate a specific area of interest focusing on the content of the class;
>
>   (2) to engage in the process of critiquing a colleague's work; (3) to incorporate
>
>   feedback from colleagues and instructors in preparing a formal academic paper
>
>   (Caffarella & Barnett, 2000, p. 3).

One required assignment included writing three drafts of a scholarly paper which was

critiqued by a colleague and an instructor after the first two drafts. The process of

writing and rewriting was one of the components to simulate scholarly writing.

Caffarella and Barnet (2000) found that the process of critiquing the writings of others

and receiving critiques of their own writings resulted in improved scholarly writings from

one group of doctoral students studied at one university.

Another approach to improving and developing graduate students' scholarly

writings began with focusing on Bloom's Taxomonomy as a pedagogical tool (Granello,

2001; Harris, 2006). According to Granello's (2001) study, the graduate student is

exposed to a library search, required to take a research methods class and required to

purchase the APA Publicaton Maual which qualified the student to move beyond the

writing of a paper that demonstrated ability to articulate opinions to a piece that

demonstrated scholarly writing. It is the belief of Harris (2006) and Granello (2001) that

specific writing instruction , indivilized instruction, enhanced scholarly writing. See

Figure 2 for a pyramid displaying the use of Bloom's taxonomy levels for dissertation
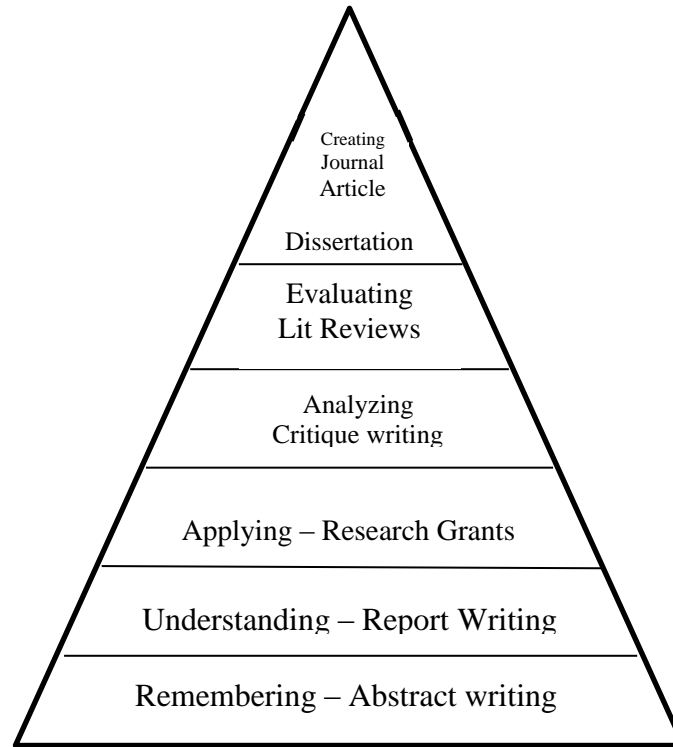
writing.

Figure 2: Using Bloom's Taxonomy to improve writing
Note. Adapted from Source (Granello, 2001; Harris, 2006)

Harris (2006) used Bloom's Taxonomy levels to create a plan for improving the

writing of literature reviews, as well as improving writing in general for the graduate

student enrolled in special education and educational administration courses. The

instructional model consisted of three steps: laying the foundation, communicating

expectations and evaluation criteria, and scaffolding for success, which aligns with

Lovitts (2007). Corresponding to Bloom's basic level, knowledge, or remembering,

Harris' first step engaged the writer with a connection of prior knowledge and built from

there. It was Harris' (2006) belief the first step to becoming a scholarly writer began

with writing a good abstract and a good critique. Granello (2001) applied the six

hierarchical levels of Bloom's taxonomy to the components of writing an advanced

literature review. The basic level on Bloom's taxonomy would be the writer who

included information from all resources regardless of the quality, all published articles.

As the writer moved up to the next level of Bloom's Taxonomy, the writer routinely

showed more of an understanding of the research and wrote more using their own words.

Granello used the Bloom's Taxonomy as a tool to promote cognitive complexity with

students working toward a graduate degree in counselor education, and felt Bloom's

Taxonomy had helped students developed a clearer understanding of writing assignments

(Granello, 2001).

Not only are students entering doctoral programs in the United States unprepared

for scholarly writing (National Commission on Excellence in Education, 1983; Shulman

et al., 2006; Singleton-Jackson, 2003; Singleton-Jackson et al., 2009), but also the

postgraduate students in the United Kingdom lack writing skills. Burgoine et al. (2011)

discovered that the postgraduate students in the United Kingdom often do not have

sufficient skills for scholarly publication, yet have been taught research skills and

demonstrate content knowledege quite well. A series of workshops evolved out of

Burgoine et al. (2011) study that included multidisciplinary writing from graduate

research students in the humaities and social sciences. Research students attended

workshops for three days to learn techniques to develop and recive critiques, remove the

emotion from the comments, meet with a mentor who came from a different discipline,

and train to co-author with specific guidelines on what qualifies authorship (Burgoine et

al., 2011).

Although the issue of the lack of writing skills of graduate and doctoral students

has been debated in the literature (Abbate-Vaughn, 2007; di Pierro, 2007; Greenbank &

Penketh, 2009; Hadjioannou et al., 2007; Mullen, 2006), little has been done to develop

specific instructions on how to enhance the scholarly writing skills (Torrance & Thomas, 1994). Torrance and Thomas (1992) found in surveying 228, full time social science research students, 50 % experienced writing related problems, though only 14% labeled themselves as poor writers and only 25% were interested in taking a writing course or workshop. Research students were also surveyed about their writing strategies as well as their productivity and writing experiences which led Torrance and Thomas to another study (Torrance et al., 1994). It was evident that writing instruction was not part of the research writers' experiences. In fact, less than half of the surveyed had received help with writing during their graduate coursework. Because of their own research results (Torrance & Thomas, 1992; Torrance et al., 1994), Torrance and Thomas developed three conceptual approaches to writing instruction for students involved in research writing, described in Table 5 (Torrance & Thomas, 1994). The results from implementing the three approaches to writing instruction suggested that variation is necessary depending upon what the department resources could accommodate, but regardless of the form of instruction the focus had to be production of text (Torrance & Thomas, 1994). Participants in the study turned in the amount of text (number of pages) produced during the writing instruction course as a means of evaluatation. The results showed the cognitive strategies course was the least helpful which did not surprise Torrance and Thomas (1994) due to their belief that "writing is a constructive process in which ideas are selected and developed for presentation to a particular audience" (p. 118). The dissertation chair has a harder time making sure the doctoral student completes the dissertation than supervising the quality of the writing because without productivity of pages, there is no completition (Torrance & Thomas, 1994).

Table 5

Conceptual approaches to writing instruction for research

Product-centered course	Cognitive strategies course	Generative writing and shared revision course
Rules based – good English, traditional style manual, correct academic writing	Think-then-write approach	Knowledge-transforming approach
Explain rule, examples, and practice time	Introduced strategies – brainstorming, concept mapping, construction issue trees	Pre-draft using a generative writing strategy
Repeat – explain rule, show example, and practice time	Plan center approach – strategies for clarifying ideas to composing	Revise rough draft to produce a working draft
Write	Write	Review and revise working draft, with comments from other students
		Discussion of a version from draft that had been rewritten by an experience academic writer
		Comment (aloud) while you read your partner's revised draft – exercise with a partner

Note. Source (Torrance & Thomas, 1994)

In 2002, Aitchison (2009) like other professors in higher educational institutions

understood the necessity to become directly involved in addressing the development of

scholarly writing (Belcher, 2009; Lee & Kamler, 2008; Wellington, 2010). Aitchison

began working with a sample group of doctoral students through writing groups at a large

university in Australia. What the 10-week session in 2002 did for scholarly writing in the

specific university was the beginning of a larger study, and the evolution of enhancing

the scholarly writing of doctoral students at the university in Australia (Aitchison, 2009).

Writing is not a stand-alone discipline but includes speaking, reading, analyzing and

writing, yet assessment in doctoral programs values the writing alone. "For most writing

groups, talk is the fundamental vehicle by which group members engage in a reflexive

practice that connects reading and writing for building of meaning" (Aitchison, 2009, p.

907) . The motivation behind joining a writing group for the doctoral student was to have

an opportunity to work with a writing expert along with peers who would encourage

productivity (Aitchison, 2009). The results of Aitchison's studies, 2002 through 2008,

were that interactions among doctoral students and an expert writer showed critical

writing competencies were built as the results of articulating one's own writings and

critiquing group members' writings (Aitchison, 2009).

The researcher has written a short review of some of the doctoral writing

programs that reflect the need for improving scholarly writing and how advisers and

professors have developed strategies to meet the challenge for doctoral students. Turner

and Edwards (2006) wrote an article about academic writing mentorship from the

reflective perspective of personal experience while acquiring the doctoral degree. The

isolation and loneliness experienced while enrolled as a student in the doctoral program

resulted in Turner and Edwards seeking out a doctoral candidate to mentor in academic

writing after acquiring a professorship (Turner & Edwards, 2006). The building blocks

of a successful mentorship are respect and mutual trust (Caffarella & Barnett, 2000;

Demaree, 2007; Eyres et al., 2001; Kumar & Stracke, 2007). Rose and McClafferty's

(2001) study revealed the supervisor of the dissertation writing typically constructed the

role of supervisor based on experience, and institutional conversations about the specific

responsibility often did not occur.

EdD Dissertation

The writing of a dissertation documented the researcher had contributed to the body of knowledge in a specific field (Cone & Foster, 2006; Davis & Parker, 1997; Krathwohl & Smith, 2005; Ogden, 2007; Pyrczak, 2000). The researcher proved or justified the worth of the topic of study by finding the aperture in the published literature. Without harm to the participants of the study, a method was formulated to gather data to answer possible research questions or explain a pre-written hypothesis. The assessed data revealed the results of the study and justification (Krathwohl & Smith, 2005). The steps seemed simple enough, but for a variety of reasons only 50% of doctoral students earned the degree which required writing a dissertation (Ogden, 2007).

The dissertation study often is designed to investigate a job related topic or a topic of keen interest to the researcher, the combination of the two is advantageous (Thomas & Brubaker, 2008). The university has a set of requirements that must be followed, as well as specific expectations from the dissertation chair and committee members. For instance, the requirements for the univeristy often are related to the specific form of the document (margins, acceptable bibliographic style, font, font size, number of pages, maximum number of tables, required headings), as well as deadlines for submission (Thomas & Brubaker, 2008). The dissertation chair and committee's requirements of the research writer vary depending upon their own expertiese, time, and interruption of the role (Wisker, 2005).

Education's doctorates became the interest of a diverse group of people with one focus: the EdD recipient is prepared to be a future leader who can read critically, analyze data, evaluate reports, organize schools, and develop policies to make the necessary

changes to ensure the success of schools (Goldring & Schuermann, 2009). Dissertation

writing, according to Kamler and Thomson (2006) is thinking that is "a kind of present

absence in the landscape of doctoral education" (Kamler & Thomson, 2006, p. x,

foreword). The review of literature has brought the Sibley University researcher full

circle.

Summary

A review of the literature revealed very few studies related specifically to writing

proficiency of students enrolled in doctoral programs, yet professors of doctoral students

struggle with accepting the doctoral students writing as scholarly (Singleton-Jackson et

al., 2009). As America developed higher educational institutions, the emphasis was

granting a doctoral degree to those who would generate new knowledge that became

evident through the writing of the dissertation, "the consumer of knowledge to a producer

of knowledge" (Siedlecki, 2005, p. 102). The researcher found within the history of the

doctoral program and history of the dissertation, writing requirements by the doctoral

students moved from a short 12 to 16 page document in Latin to the traditional five-

chapter document (Goodchild & Miller, 1997). The National Science Foundation,

Division of Science Resources Statistics (2010) reported in the United States one

doctorate awarded in the 1869-1870 school year and 68,800 doctorate degrees in 2009-

2010 school year with 52% of those awarded to females. Only approximately 50% of

students enrolled in the doctoral degree programs complete the degree. According to di

Pierro's (2007) findings, writing the dissertation is the major obstacle to completion.

The complexity of writing and the difficulty to teach writing are well documented

in research studies, yet the unique experience of guiding the writing of a dissertation is

left to an advisor who knows only what has been learned through personal experiences

(Abbate-Vaughn, 2007; di Pierro, 2007; Hadjioannou et al., 2007; Knox et al., 2011;

Mullen, 2006; Switzer & Perdue, 2011; Torrance, M. , 2007). "Writing is how we think

our way into a subject and make it our own. Writing enables us to find out what we

know – and what we don't know – about whatever we are trying to learn" (Zinsser, 1988,

p. 16). The quote described the doctoral students' challenge which is: select a topic;

uncover all the research already done on the topic; find the gap; conduct research that

will add to the body of knowledge; and write a dissertation (Davis & Parker, 1997). The

literature revealed prominent composition theorists whose models are still being used,

with adaptations, as research continues because of the complexity of the writing process,

but the majority of the studies worked with kindergarten through high school students,

not college students, and especially not doctoral students (Alamargot & Chanquoy, 2001;

Beard et al., 2009; Becker, 2006; Catts & Kamhi, 2005; Flower & Hayes, 1981; Lavelle

& Zuercher, 2001; Levy & Ransdell, 1996).

Gange (1985), an American educational psychologist, pointed out that feedback is

part of the nine events of instruction. One connection between types of learners and the

specific types of instruction required to best motivate the learner included the importance

of providing feedback, regardless of the age of the learner especially when it comes to

writing (Gagne, 1985). An assumption held by professors of graduate students,

especially doctoral students, is the writer comes into the program as a proficient,

scholarly writer, yet this is typically the first experience for the student to be required to

write in the scholarly style (Caffarella & Barnett, 2000; Mullen, 2006). Often graduate

students will seek out faculty for writing instruction, feedback, or guidance because

learning academic writing is difficult (Mullen, 2006). When the faculty member

becomes a mentor through the entire doctoral experience, the chances of completing the

program can be as high as 70% (Creighton, Parks, & Creighton, 2008).

In conclusion, the complexity of mastering writing in order to complete a

doctorate, along with the attrition rate of 50%, the national attention on educational

leaders and competition in a global society caused the eyes of the citizen of American to

focus on the educational process. Research reports focused on the preparation provided

by higher educational institutions to prepare the doctoral graduate for a successful career.

Higher educational institutions were encouraged to redesigned the doctoral program and

made a distinct difference between the doctoral degrees that prepared leaders in education

to lead schools and a second doctoral degree that equipped leaders to fill positions of

professionalism and scholarship (Golde, C. M., 2006; Shulman et al., 2006). The

doctoral recipient prepared to be a future leader can read critically and analyze data,

evaluate reports, organize schools, develop policies, to make the necessary changes to

ensure the success of schools which is referred to as the professional practice doctorate

(Goldring & Schuermann, 2009). The critical examination of higher learning institutions

doctoral programs focused on the writing of the dissertation which required proficieny in

writing, regardless of the difference in the doctoral degree.

Chapter Three: Methodology

Introduction

The purpose of the study was to gain an understanding of perceived and measurable changes in writing as students work their way through the doctoral coursework and dissertation writing. There is little research on the topic of the doctoral students' writing proficiencies (Singleton-Jackson, 2003; Singleton-Jackson et al., 2009). Research on writing proficiency from elementary students through undergraduates is prevalent; however, few focused on students in graduate school (Abbate-Vaughn, 2007).

As mentioned in Chapter 1, writing is something writers are always learning to do, yet scholarly writing is not included as a learning objective throughout the doctoral coursework at Sibley University at the time of this study. The State Standards for School Leaders had no reference to research or writing (Missouri Advisory Council for the Certification of Educators, 2011). This is not exclusive to doctoral students or this specific university; Abbate-Vaught (2007) reported, "Only 11% of college seniors are able to write at a proficient level" (p. 52). With that in mind, if the researcher uncovered measurable changes in writing among doctoral completers, then a future study could be to replicate the methodology with the writings of the ABD (all but dissertation) students to see if lack of writing improvement could be a reason for failure to complete the degree. For this study, the researcher interviewed doctoral students at Sibley University to gain an understanding of the doctoral students' perception of their writing abilities. The researcher triangulated this data with any measurable differences in the students' writings to see if qualitative perception was consistent with any quantitative change.

Research Questions

The following questions were addressed in the study:

RQ1: Is there a measurable change among doctoral students' writing proficiency as measured by the Flesch-Kincaid readability test from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation?

RQ2: How do doctoral graduates perceive their writing has changed through the program? To what do they attribute these changes?

Independent Variables. A deliberately planned set of writing strategies delivered in coursework, offered from dissertation chair and committees, and shared in workshop settings, such as those held in Capstone III are independent variables in the study.

Dependent Variables. The writing characteristics measured by the Flesch-Kincaid will include the reading level, number of syllables per word, number of words per sentence, number of sentences per paragraph, and percentage of passive sentences in documents submitted by participants in the study are dependent variables.

Hypotheses

Null Hypothesis # 1: There will be no difference in grade level, measured by the Flesch- Kincaid Inventory, when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Null Hypothesis # 2: There will be no difference in percentage of passive sentences utilized when comparing measures of the drafts of graduates' dissertations four

points in the program: Capstone I or earliest available draft, Capstone II, committee-

approved draft and the completed dissertation.

Null Hypothesis # 3: There will be no difference in average characters per word,

average words per sentence, and average sentences per paragraph when comparing

measures of the drafts of graduates' dissertations from four points in the program:

Capstone I or earliest available draft, Capstone II, committee-approved draft, and the

completed dissertation.

Methodology Conceptual Framework

In this study, in order to research whether there is a measurable change among

doctoral students' writing proficiency as measured by the Flesch-Kincaid readability test

from review to publication required a quantitative method. Yet to answer how doctoral

graduates perceive their writing had changed through the program and to what they

attribute, requires qualitative research. Then the researcher needed to compare the two

sets of data, quantitative and qualitative. Therefore, the study required the use of both

methods, known as the mixed methods approach. The definition of mixed methods is:

> A mixed methods study involves the collection or analysis of both quantitative
>
> and/or qualitative data in a single study in which the data are collected
>
> concurrently or sequentially, are given a priority, and involved the integration of
>
> the data at one or more stages in the process of research. (Creswell, Clark,
>
> Gutmann, & Hanson, 2003, p. 212)

The mixed methods research approach has been around since 1950s but not always

recognized as an appropriate approach in educational research. Studies with a holistic

analysis, which explains relationships among variables in depth, are conducive to the

mixed methods approach (Fraenkel & Wallen, 2009). The researcher's study involved

the participants' perceived change in their own writings during the EdD program, as well

as the analysis of the writings using an electronically available measurement tool. The

study's independent variables are the planned set of writing strategies delivered in

coursework, feedback from dissertation chairs and committees, and workshops made

available throughout the EdD program. Dependent variables are the writing

characteristics measured of the reading level, average number of syllables per word,

average number of words per sentence, average number of sentences per paragraph, and

percentage of passive sentences in documents from the dissertation's drafts. Combining

quantitative and qualitative data provided the holistic analysis (Hammond, 2005). See

Figure 3 for a diagram of the mixed methods sequential explanatory design procedures in

the study, adapted with permission from IvanKova and Stick's study (Ivankova & Stick,

2006, p. 98).

Bogdan and Biklen (1998) described qualitative research: "You are not putting

together a puzzle whose picture you already know. You are constructing a picture that

takes shape as you collect and examine the parts" (p. 7). The quantitative portion of the

study examined the writings of the doctoral students using the Flesch-Kincaid and Flesch

Ease Readability test. The Flesch-Kincaid program generated scores to indicate the grade

level of the writings, percentage of passive sentences, and average length of sentences

and paragraphs. The scholarly writer uses active voice rather than passive voice

according to the American Psychological Association, publisher of standards to advance

scholarship since 1929 (American Psychological Association, 2010). The Flesch-Kincaid

and Flesch Ease Readability tests have been widely used in research as a dependable tool

to assess writing and reading (Feng, 2010). To gain insight of how the participants in the researcher's study felt about their writing experiences throughout the doctoral program, the researcher requested an interview from participants. The research questions in the qualitative portion of the study provided evidence as to whether the participants in the study perceived a change in their writing throughout the writing of the dissertation.

Procedure   Product

Case selection
Interview Protocol

- Develop interview questions
- Convenience sampling

- Recordings of the Interviews

Qualitative
Data Collection

- Individual telephone interviews with 17 participants
- Elicitation materials
- Drafts of dissertations at various stages

- Transcribed 17 individual telephone interviews

Qualitative
Data Collection

- Coding and thematic analysis
- Within-case and across-case theme development
- Cross-thematic analysis

- Codes and themes
- Similar and different themes and categories
- Cross thematic matrix

Quantitative
Data Collection

- Analysis of writing at least three data points

- Numeric data entered in spreadsheet

Quantitative
Data Collection

- Scrub participants documents of everything other than narrative

- Descriptive statistics

Integration of the Quantitative and Qualitative Results

- Interpretation and explanation of the quantitative and qualitative results

- Discussion
- Implications
- Future research

Figure 3. Visual model for mixed methods sequence

Research Setting

Sibley University is a four-year liberal arts institution that offered more than 120 undergraduate and graduate programs, but only one doctorate at the time of this writing. Five other universities offer a Doctor of Education within a 25-mile radius of Sibley University, as well as online doctoral degrees. The doctoral program in educational leadership in the School of Education offered non-certificated and certificated Educational Doctorate (EdD) degrees. The certificated track, referred to as advanced certification, provided training for those who aspired to be school district principals and superintendents. Graduate students also had the option of obtaining the initial certification of school principal or the advanced certification of school superintendent through the Educational Specialist Degree (EdS).

The state's Department of Elementary and Secondary Education awards certification to the students after they complete the requirements of coursework, aligned with the Standards for School Leaders and the Interstate School Leaders Licensure Consortia (ISLLC) standards, and achieve a qualifying score on the State Board of Education initial certification assessment (Missouri Department of Elementary and Secondary Education, 2005). The State Standards for School Leaders had no reference to research or writing at the time of this study (Missouri Advisory Council for the Certification of Educators, 2011). However the revised researched-based *ISLLC 2008* standards "to be discussed at the policymaking level to set policy and vision," added a companion guide supplement that emphasized the importance of educational leaders applying data and research to impact student achievement, but nothing specific to writing (The Council of Chief State School Officers, 2008, p. 6). Sibley University's Dean of the

School of Education, an Assistant Dean of Educational Leadership, and Department

Chair for the EdD degree oversee course content, pedagogy, and the alignment of course

syllabi outcomes. The EdD professors align course syllabi with state Standards for

School Leaders, the School of Education conceptual framework, and the *ISLLC*

standards. The non-certificated doctoral track provided training for those who plan to be

instructional leaders in areas that do not require professional certification; likewise,

Sibley University offered an EdS, which mirrors the non-certificated doctoral track

(Researched University, 2012). EdS degreed students are required to take 24 to 27 hours

of coursework in the EdD program. Table 6 list admission requirements for the doctoral

program.

Table 6

EdD admission requirements

- Gain acceptance into Sibley University graduate school
- Possess a Master's degree, accredited college or university, GPA 3.4 out of 4.0
- Certified Program – hold valid teaching certificate Non-certified – not required
- Complete an EdD Program application
- Submit resume
- Pass an on-site writing activity
- Participate in an interview
- Submit four letters of recommendation
- Submit Graduate Record Examination scores (taken within the past five years)

Note. Source Researched University Site, 2012

The demands on the doctoral student are as follows: work with an advisor and a

program planning committee to develop a learning plan, complete EDA 75000 (Capstone

I) with a grade of B or higher during the first year of the program, complete a minimum

of 24 hours in residence; successfully complete the EdD Comprehensive Exam, complete

the required courses with a 3.66 grade point average in the first nine hours and maintain a

3.5 out of a 4.0 grade point average (Program Report 2010-2011). In EDA 77000

(Capstone II) or before, a prospectus must be written to describe the methodology for the doctoral student's study and submitted to a panel of EdD Faculty. After completion of the prospectus, the doctoral student submitted an IRB application to the university Institutional Review Board (IRB) for approval. The beginnings of the dissertation are revised from work done in EDA 75000 (Capstone I) and EDA 77000 (Capstone II) and developed from information presented by the professor in EDA 77500 (Capstone III) with edits from dissertation chair and committee. "The dissertation is expected to exhibit scholarship, reflect mastery of writing, research techniques, and concentrated study" (2010 EdD Handbook, 2010, p. 26). The doctoral student must complete the 48-hour program no later than five years from the day of the first semester enrolled or file a petition for policy exemption to request an extension time.

Sibley University's doctoral program began in 2005-2006 with 34 females and 25 males enrolled, which included both non-certificated track and certificated. Tables 7 – 10 reflect the student population for both advanced certification (educational administration) and non-certification (instructional leadership) for Sibley University's doctoral program from the 2005-2006 school year through the 2010-2011 school year. In 2007, Sibley University added the Assistant Dean of Educational Leadership to doctoral program and the Council for Educational Leadership (CEL). The CEL met monthly to provide guidance for the Department of Educational Leadership and submit changes deemed necessary for the success of the doctoral program. The Dean of the School of Education took CEL's suggestions to the Dean's Council and the Faculty Council and reviewed by the President of Sibley University.

Table 7

EdD student population - non-certification

Student Population – Instructional Leadership P-12 Non-Certification			
YEAR	BLACK	WHITE	OTHER*	TOTAL
2010-11	**B**	**W**	**O**	**TOTAL**
EdD Female	50	96	14	160
EdD Male	19	42	7	68
Total	69	138	21	228
2009-10	**B**	**W**	**O**	**TOTAL**
EdD Female	14	32	9	55
EdD Male	7	18	6	31
Total	21	50	15	86
2008-09	**B**	**W**	**O**	**TOTAL**
EdD Female	6	7	3	16
EdD Male	1	5	3	9
Total	7	12	6	25
2007-08	**B**	**W**	**O**	**TOTAL**
EdD Female	1	9	2	12
EdD Male	1	7	0	8
Total	2	16	2	20
2006-07	**B**	**W**	**O**	**TOTAL**
EdD Female	0	4	0	4
EdD Male	1	1	0	2
Total	1	5	0	6
2005-06	**B**	**W**	**O**	**TOTAL**
EdD Female	0	4	0	4
EdD Male	1	1	0	2
Total	1	5	0	6

Note. *Other - Includes Asian, Hispanic, American Indian, and those that did not mark ethnicity

Table 8

EdD student population – Andragogy - non-certification

Student Population – Instructional Leadership Andragogy (Non-Certification)			
YEAR	BLACK	WHITE	OTHER*	TOTAL
2010-11	**B**	**W**	**O**	**TOTAL**
EdD Female	1	9	2	12
EdD Male	1	5	0	6
Total	2	14	2	18

Note. *Other - Includes Asian, Hispanic, American Indian, and those that did not mark ethnicity

Table 9

EdD student population – Higher Education – non-certification

Student Population – Instructional Leadership Higher Ed Administration (Non-Certification)			
YEAR	BLACK	WHITE	OTHER*	TOTAL
2010-11	**B**	**W**	**O**	**TOTAL**
EdD Female	3	10	4	17
EdD Male	0	7	3	10
Total	3	17	7	27

Note. *Other - Includes Asian, Hispanic, American Indian, and those that did not mark ethnicity

Table 10

EdD student population – advanced certification

Student Population – Advanced Certification				
YEAR	BLACK	WHITE	OTHER*	TOTAL
2010-11	**B**	**W**	**O**	**TOTAL**
EdD Female	11	27	5	43
EdD Male	1	31	2	34
Total	12	58	7	77
2009-10	**B**	**W**	**O**	**TOTAL**
EdD Female	17	34	14	65
EdD Male	5	25	10	40
Total	22	59	24	105
2008-09	**B**	**W**	**O**	**TOTAL**
EdD Female	12	17	2	31
EdD Male	5	7	5	17
Total	17	24	7	48
2007-08	**B**	**W**	**O**	**TOTAL**
EdD Female	12	18	0	30
EdD Male	7	13	2	22
Total	19	31	2	52
2006-07	**B**	**W**	**O**	**TOTAL**
EdD Female	12	18	0	30
EdD Male	13	10	0	23
Total	25	28	0	53
2005-06	**B**	**W**	**O**	**TOTAL**
EdD Female	12	18	0	30
EdD Male	13	10	0	23
Total	25	28	0	53

Note. *Other - Includes Asian, Hispanic, American Indian, and those that did not mark ethnicity

In 2008, Sibley University employed a Supervisor of Graduate Research who implemented Conversations of Research Design (CORD) for improving the quality of the research. To accommodate the enrollment and support research writing, additional staff members were hired. By May 2009, 38 EdD students had graduated from Sibley University (Ayres, 2011). The doctoral program added the Andragogy (adult learning) strand and the higher education strand to accommodate a need to develop leaders outside of the K-12 setting (Program Report 2010-2011). According to D.A. Ayres (personal communication, June 1, 2012), Sibley University's EdD program accepted students enrolled in the EdS program without meeting an application requirement; interested students were *grandfathered-in*. Implementation of the current admission standards began in 2009. Table 6 lists the admission standards.

In 2007, Sibley University implemented the Comprehensive Academic

Management System (CAMS), which allowed students access to information related to

transcripts, ledgers, financial aid, grades, graduation requirements, course offerings, and

student services. Through a faculty login to CAMS, faculty members had access to

student information, such as the major listed for the students. Faculty found

inconsistencies and incorrect listings of students' majors; therefore, the student

population tables have a chance of errors (Ayres, D.A., personal communication, June 1,

2012). Sibley University's policy prohibited automatic enrollment in zero credit for

ABD students, which also affected the student population tables. Some students enrolled

in the EDA 78000 zero credit, Capstone Experience, in order to stay connected to the

university through email, make use of library services, and the writing center, receive

assistance from professors and University offices, all while completing their dissertation

(B.A. Kania-Gosche, personal communication, June 4, 2012). There are unknowns

related to students' statuses with Sibley University's EdD program; some have moved

from the EdD program to the EdS program, and other EdD students have completed all

coursework but not the dissertation and defense.

Participants

An invitation to participate in the study went to EdD students from Sibley

University's program who had defended their dissertation and participated in the

graduation ceremony in May 2011, as well as those who defended their dissertation

between May and December of 2011. The easy accessibility of the sample made it

convenient for the researcher. "A convenience sample is any group of individuals that is

conveniently available to be studied" (Fraenkel & Wallen, 2000, p. 123). The researcher

worked with the Supervisor of Graduate Research to contact the population of the study

via email. The population consisted of 34 individuals, but the results from the request via

email did not garner the number required to conduct the study. Twelve volunteered to

participate in the study and the study required a minimum of 15 participants. Since the

number was still low, the researcher acquired names and contact information of students

defending their dissertation between May of 2011 and December of 2011. The

university's Daily Digest (online daily announcements for faculty and staff) announced

the date, place, and time of the dissertation defense along with the EdD student's name.

The researcher made an appeal to new doctoral recipients to participate in the study.

There were five doctoral defenses, and all five agreed to participate, which brought the

total to 17 participants. Because the researcher had direct contact with the participants,

the researcher emailed a consent form, including the guidelines, with the directive that all

documents be sent to the Supervisor of Graduate Research to keep the writings

anonymous. All but one participant in the sample submitted writings for analysis from

Year 1 (Capstone I) or earliest available draft, Year 2 (Capstone II), the committee

approved draft, and the final dissertation to the Supervisor of Graduate Research. The

Supervisor of Graduate Research assigned a number to each participant's group of

writings and forwarded all four writings to the researcher. To determine the

generalizability of the findings, the researcher tested four additional students' samples. A

committee member who also served on the additional students' committee sent the drafts

of graduates' dissertations from four points in the program to the researcher. Time

constraints did not allow for interviews with the addition students; however, the results of

this statistical test demonstrate that the self-selected sample of the interview participants'

writings were representative of the overall population of EdD graduates at this institution.

Fifteen participants were interview and 20 participants submitted samples from the

described four points in the program.

Table 11

Research participants' demographics, entry, and degree conferred dates

ID	Gender	Marital Status	Age (time of interview)	Entry date of EdD Program		Date EdD degree conferred		No. semesters enrolled
				Semester	Year	Semester	Year	
Shaundrika	female	M	57	summer	2006	summer	2011	11
Rocellia	female	M	39	summer	2007	spring	2011	9
Edward	male	M	45	fall*	2007	spring	2011	8
Timara	female	S	30	fall	2007	spring	2011	10
Zoey	female	S	57	fall	2008	summer	2011	8
Maureen	female	S	33	spring	2008	spring	2012	10
Bentley	male	M	38	spring	2008	fall	2011	10
Fliece	female	M	34	fall**	2008	summer	2011	8
Riley	female	S	54	spring	2008	fall	2011	9
Charla	female	M	33	spring*	2008	spring	2011	7
Amelia	female	S	35	fall*	2009	spring	2011	4
Trinity	female	M	38	spring	2009	summer	2011	7
Katrina	female	M	31	spring	2009	spring	2011	7
Kalib	male	S	64	spring	2009	summer	2011	6
Essence	female	S	64	summer	2009	fall	2011	8
Sofia	female	M	35	fall	2009	fall	2011	7
Shoniece	female	S	27	summer	2009	spring	2011	6

Note. *did not attend any summer sessions   **participated in interview but did not submit requested writings. Demographic information is not recorded for the additional four.

Out of the 17 participants, one student (Amelia) was attending classes and working as a

graduate assistant for the doctoral professors. The same student began the program with

an EdS degree, which means the EdD requirement was 24 hours instead of 48 hours. On

average, students in the EdD program were enrolled 7.94 semesters whereas this person

finished the doctoral degree in four semesters. Three students did not enroll during

summer terms; they are marked with an asterisk in Table 11. The average age of the

participant was 42 and 53% were married. Eighty-two percent females and 18% males

made up the study. Seventy-seven percent of the population was female.

Instruments

       Interviews. One method to gather qualitative data is through interviews. There

are four basic types of interviews, though each has a variation (Fraenkel & Wallen,

2009). The structured and semi structured interview ask a series of questions to obtain

information about a previous experience and are useful when structured to test a

hypothesis, which was not appropriate in the Sibley University research (Axelson,

Kreiter, Ferguson, Solow, & Huebner, 2010; Roulston, 2011). The most common type of

interview is the informal interview, which resembles a casual conversation, but one of the

most difficult interviews to conduct (Fraenkel & Wallen, 2009). The researcher of the

study used the fourth type, retrospective interview. The participants in the study

answered a set of questions that pulled from the memory of their experiences in the EdD

program. Each had the option of reviewing the questions prior to the interview. While

memory can be inaccurate, perceptions were a focal point of this study. Although the

time between the participants' dissertation defense and the interview varied from five

days to 10 months, few participants gave responses indicating they did not remember the

answer to the question.

       The interviewee had the choice of a face-to-face approximately 30-minute

interview or a phone interview; four of the 17 chose a face-to-face interview. The

questions are in Appendix A. According to Krathwohl and Smith (2005), it is advisable

to pretest with an instrument, whether created by the researcher of the study or one

previously developed. "Using an item [recycled] in a new context may change responses

significantly" (Krathwohl & Smith, 2005, p. 167). The researcher created the interview

questions and pretested prior to the beginning of the study. The interview questions were

asked to a individual who had completed the EdD program, and the answers were

recorded.

   Flesch-Kincaid. Flesch (1949) influenced writing in a significant way. As an

employee of The Associated Press, Flesch motivated writers to report news set in

perspective for a better understanding by the public and created the Flesch Reading Ease

Test. Flesch also co-created the Flesch-Kincaid Readability Test, which assesses the

reading level of a written document, with no limit on the number of words in the

document (Flesch, 1949). The Flesch-Kincaid and the Flesch Reading Ease tests are

tools of Microsoft Office that evaluate writing using the number of syllables per word

and the number of words per sentence in a passage of text. The Flesch-Kincaid

readability formula is a mathematical formula in which constants are weighted, number

of syllables per word averaged, and number of words in a sentence and number of

sentences in a paragraph averaged. The results deliver a score indicating the difficulty of

the passage (Feng, 2010). The Flesch Reading Ease generates a number signifying the

difficulty of the passage, and the lower the number, the more difficult the passage is to

read. The readability of the text is what makes readers willing to read on (Feng, 2010).

The health care industry uses the Flesh-Kincaid grade level tool in studies because of the

reliability and validity (Gillet, Maltha, Hermans, Ravinetto, & Brugeman, 2011). The

researcher due to their availability and ease in application chose the widely used Flesch-

Kincaid and Flesch Ease Readability.

Procedures

  Sampling. Doctoral graduates from the campus who were eligible to walk in the commencement ceremony in May 2011 were recruited (each supplied the four required writing samples). The Supervisor of Graduate Research (who is responsible for submitting the final copies of dissertations to the library) sent the recruitment letter and consent form via email to doctoral graduates. Participants of the study submitted writings from Capstone I or earliest available draft, Capstone II, final draft submitted to committee, and final dissertation electronically to the Supervisor of Graduate Research in response to the recruitment letter and consent form. Two weeks later another email went out to those who had not responded. The number required to meet the minimum participants for the study was 15, but only 13 responded. Since the required number of participants had not responded, an email requesting participation in the study went to those who defended in summer or fall of 2011, but no response. The email was from the Supervisor of Graduate Research who made clear in the request that students who did not have the four writing samples (Capstone I, Capstone II, submitted draft, final dissertation) were not be eligible to participate in the study. The researcher utilized Sibley University's electronic announcement of dissertation defenses in order to acquire the remaining participants needed for the study. The university's electronic daily announcements posted scheduled doctoral student's dissertation defense. The researcher had access to the student directory and retrieved the email address. Five potential participants of the study received an email with the specific directions to send samples of the graduate students' writings from their Capstone I or earliest available draft, Capstone II, and Capstone III courses to the Supervisor of Graduate Research along with the

consent form. All five potential participants agreed to participate in the study. The

Supervisor of Graduate Research sent the collection of documents to the researcher

without the name of the participants. Seventeen EdD students with conferred degrees

participated in the qualitative portion of the study. One of the 17 EdD students did not

submit the four documents for the quantitative analysis. The conferred degrees posted on

student transcripts from February of 2011 through January of 2012. To determine the

generalizability of the findings, the researcher tested four additional students' samples. A

committee member who also served on the additional students' committee sent the drafts

of graduates' dissertations from four points in the program to the researcher. The

researcher interviewed 17 students and analyzed 20 students' writings for data analysis.

     Interviewing. The Supervisor of Graduate Researched removed students' names

from all the writing samples, substituted a number, and forwarded the writings to the

researcher for analysis. Before any analysis of the documents, the researcher scheduled a

30-minute interview with participants in the study, to minimize the possibility of the

researcher's interviewing behavior changing because of the participants' writings. To

standardize the procedure, the researched asked the questions in the same order. The

researcher had developed a set of open-ended survey questions that included

demographic data, questions related to the kinds of writing experiences and challenges, as

well as supports available through Sibley University. In order to alleviate the possibility

of missing data from one interview to the next, the researcher asked the questions in the

order on the script. The essential purpose of the interview was to assess the participants'

perception of the changes in their own writing proficiencies during the EdD program.

The interview also gave information pertaining to participants' perception of the writing

assignments, feedback, and available help throughout the writing of the program.

According to Maxwell (2005), the research question directs the investigation and

the interview questions help develop insight (p. 92). Interview techniques range from the

face-to-face interview to an electronic interview with the aide of the computer. Due to

advanced technologies, the interview can be synchronous or asynchronous (Opdenakker,

2006). The researcher asked each participant of the study to select what worked best, the

face-to-face interview or the phone interview. The researcher made clear her willingness

to travel to the participant. Two of the study participants selected face-to-face interviews

and the remaining 15 requested a phone interview. One advantage of the face-to-face

interview is that the researcher can notice the social cue of body language; however, the

phone interview made it more likely to reach participants who lived in other states. It is

not likely that the researcher, after contacting the participant and finding out the current

location was out of state, would have been able to take time off to travel to the

participant. The participants, at the time of the interview, had relocated to as far away as

Minnesota and New York. A challenge of the telephone interview is sustaining

attentiveness, which results in fatigue (Irvine, 2011). Irvine's (2011) study reported the

average length of the telephone interviews was 15 minutes shorter than face-to-face. The

researcher did not include data on the length of the face-to-face interviews compared to

the telephone interviews because the topic of study is writing proficiencies.

The researcher was aware of the participant's time and promptly started at the

scheduled time. The researcher made an effort to create a congenial atmosphere by

showing an appreciation of the participant's contribution toward the study and thanking

each for taking time out of his or her busy day. Two of the participants scheduled face-to-face interviews and 15 scheduled telephone interviews. All 17 interviews were audio-recorded with permission from each participant in the study.

The researcher used the privacy of her parked car to conduct the telephone interviews placing her cell phone on speaker and recording with a battery-powered audio-recorder. The researcher did not take notes in order to keep the flow of the interview moving from one question to the next. The participants in the study selected times that were convenient and 13 selected time during the workday of the researcher. The remaining two telephone interviews were done in the privacy of the researcher's home. One face-to-face interview took place outside at a picnic table, and the other interview in the researcher's office, after all other employees had left the building. The average length of the interviews was 35 minutes. The researcher transcribed all of the audio recordings, which took approximately three hours each.

Data collection. Naturalized transcription and denaturalized transcription are the two main methods used by researchers (Mero-Jaffe, 2011, p. 232). The researcher of the study used the naturalized transcription method which included every detail of the discourse including, the pauses, laughter, mumblings of the interviewee, and interjections from the interviewer. The transcripts will not be included in an appendix to the study as aligned with the IRB and letter of consent (the information collection will remain in the possession of the investigator in a safe location). According to Mero-Jaffe (2011) the denaturalized transcript has a more coherent flow and is easier to read and does describe the discourse accurately. After the first experience of transcripting the discourse, the researcher vowed to transcribe the interview as soon as possible after the interview took

place; therefore, transcription occurred as soon as possible after the interview. The

transcription process is one small critical element in the data analysis in qualitative

research (Mero-Jaffe, 2011, p. 232). The transcription is only as good as the transcriber ,

the recording equipment, and location of the interview. All but one of the 15 phone

interviewees (two interviews were face-to-face), selected a quiet setting, but one

scheduled the interview time at a time the interviewee would be traveling.

The participants in the study submitted writings (drafts of dissertation written in

Year 1 [Capstone 1]or earliest draft, Year 2 [Capstone II], the committee approved draft,

and the final dissertation) electronically to the Supervisor of Graduate Research in order

to remove names and identifying marks and a number was assigned beginning with 01

and extending through 20. Participants' submitted writings distributed over the time the

participant of the study spent in the EdD program. All participants of the study, not

enrolled in the same classes at the same time, took the Capstone courses from which the

requested sample writings came. The Supervisor of Graduate Research forwarded the

writings to the researcher for data analysis.

Measurement. After the interviews, the quantitative data for each student was

analyzed through use of ANOVA to see if the overall measurable changes corresponded

with the students' overall perceived changes. The Flesch-Kincaid Readability Test was

applied to all documents submitted by the participants in the study. Flesch-Kincaid

Readability Test score number was placed in a Microsoft Excel Spreadsheet, along with

the percentages of passive sentences, average characters per word, average number of

words per sentence, and average number of sentences per paragraph.

Data Analysis. The researcher began by printing all 17 transcriptions of the interviewees to read. First, the transcript was read completely; second, the researcher reread and highlighted sections within the transcript, then moved to the next transcript. As described by Patton (2002), reading through the data is first step to recognizing the coding categories. Sherblom (2012) breaks down qualitative analysis in three parts: data reduction, data display, and conclusion drawing. The researcher asked the participants in the study a set of questions that they answered based upon their memory of their experiences with the option of reviewing the questions prior to the interview. The steps used in analyzing the qualitative data included: highlighted chunks of significant information on each transcript, gave each highlighted segment a two to three word description (code), and sorted all segments by meaning (Sherblom, 2012). Miles and Huberman (1994) describe codes:

> Codes are tags or labels for assigning units of meaning to the descriptive or inferential information compiled during a study. Codes usually are attached to chunks of varying size, words, phrases, sentences, or whole paragraphs, connected or unconnected to a specific setting. (p. 56)

The researcher analyzed each question independently for each transcript, and created themes by searching for patterns among each question for all 17 transcripts. General themes materialized from content in transcripts and the researcher-sorted segments by meaning, grouped like with like and took the resulting bundle of segments and gave it a code that evolved into a story.

Each participant of the study submitted writings from Year 1 (Capstone I)or earliest draft, Year 2 (Capstone II), the committee approved draft, and the final

dissertation, which was analyzed with the use of the Flesch-Kincaid Grade Level test and Flesch Reading Ease tools, part of Microsoft Office software. The documents were emailed to the Supervisor of Graduate Research where a number from 01 to 20 was assigned to each and the set of documents was then emailed to the researcher. Each document was scrubbed with removal of title page, table of content, figures, tables, and reference or works cited pages by the researcher. The measurement tool was applied to the narrative part of each document with the use of the spelling and grammar check feature of Microsoft Word. The researcher customized the Microsoft Word spelling and grammar options by clicking on more commands drop down menu, proofing, and selecting show readability statistics when correcting spelling and grammar.

The written documents submitted by all participants in the study were analyzed with the assistance of Microsoft Word built in Data Analysis tool. The results of the readability statistics derived from each narrative per person was entered into Microsoft Excel worksheets for the following characteristics: average characters per word, average words per paragraph, average sentences per paragraph, percentage of passive sentences.

An ANOVA for the difference in the means was run on average characters per word, average words per paragraph, average sentences per paragraph, and percentage of passive sentences. The study represented multiple timelines for each participant of the study during the EdD program, and the researcher chose the ANOVA to analyze all of the pieces of the data at the same time to give results for the potential relationship between each checkpoint in the dissertation writing process.

Threats to Internal Validity

According to Fraenkel and Wallen (2009), if there is more than one way to explain what the study revealed, a chance exists that there are threats to internal validity. Typically, more than one way exists to explain outcomes of a qualitative study.

> The observed differences on the dependent variables [reading level, average number of syllabus per word, average number of words per paragraph, average number of sentences per paragraph and percentage of passive sentences] are related to the independent variables [deliberately planned set of writing strategies delivered in coursework, help offered from dissertation chairs and committees, and Capstone III workshops] and not due to some other unintended variable. (Fraenkel & Wallen, 2000, p. 190)

The Supervisor of Graduate Researcher recruited through email the study's participants, which alleviated a selection bias by the researcher. All EdD graduates who walked in the May 2011 graduation ceremony and those who defended their dissertation from 2011 to January 2012 had an opportunity to participate in the study. All but one of the participants in the sample submitted writings for analysis from four points in the program: Year 1 (Capstone I) or earliest available draft, Year 2 (Capstone II), the committee approved draft, and the final dissertation to the Supervisor of Graduate Research to keep participations writings anonymous for the researcher. One person participated in the interview (qualitative study) but failed to submit the documents for analysis (quantitative study). To determine the generalizability of the findings, the researcher tested four additional students' samples. Time constraints did not allow for interviews with the addition students; however, the results of this statistical test

demonstrate that the self-selected sample of the interview participants' writings were representative of the overall population of EdD graduates at this institution.

The data was collected from writings of the participants electronically and through interviews via telephone or face-to-face. The participants of the study selected the location that made it convenient and non-threating. However, one participant out of 17 conducted the telephone interview while driving from one work site to another. There is a chance the participant was distracted when answering the interview questions.

The researcher collected and analyzed all the data in the study. The instrumentation included Microsoft Word 2010 and the interview questions developed by the researcher. All written documents submitted by the participants in the study were scrubbed of possible threats to the readability statistics test; only the narrative of each document was analyzed. Each interviewee was asked the same set of questions in the same order; each session was audiotaped. The written data collected were writings from the EdD program, documents that had been written prior to volunteering to participate in the study.

The length of time from entrance in the EdD program until completion is not part of the study; therefore, the writings analyzed from the participants in the study could be from different professors' courses. However, no threat existed internally because each participant, but one, submitted writings along the timeline, dissertations from Year 1 (Capstone I) or earliest draft, Year 2 (Capstone II), the committee approved draft, and the dissertation. The maturation threat was not valid for the study, though the reliability and validity of the qualitative data of this study are limited to the honesty of the participants' interview responses. The study did not have a regression threat because participants

volunteered and were not selected due to extreme scores on writing evaluations or graduate level entrance exams. The study was not an intervention study; therefore, no implementation threat was possible. The researcher minimized the threats to internal validity by being consistent in the collection and treatment of all data and all participants.

Summary

This study investigated perceived and measurable changes in writing as EdD students worked their way through the doctoral coursework and dissertation writing. Data for 17 study participants were gathered through individual 30-minute interviews and drafts of graduates' dissertations from Year 1 (Capstone I), Year 2 (Capstone II), the committee approved draft, and the final published draft. All electronically submitted writing drafts were scrubbed through removal of title pages, table of contents, list of figures, list of tables, and reference list leaving only the narrative for analysis with the Flesch-Kincaid Readability Test and Flesch Reading Ease Test. ANOVA was applied on data gleaned from each participant's writings in order to analyze all of the pieces of the data at the same time and results for the potential relationship to each other.

The researcher audiotaped and transcribed 30-minute interviews with the 17 participants in the study. The transcriptions were broken apart in order to compare phrases that appeared to be in the same category as themes evolved. "In the final phase of data analysis each interview is reread with the objective of writing individual short interview summaries" (Maxwell, 2005, p 153). The summaries reveal the categories that run through transcripts, which allowed the researcher to pull together themes revealed because of the study. Chapter 4 discusses the analysis of data and statistical treatment.

Chapter Four: Analysis of Data

Overview

The study investigated the perceived and measurable changes of students'

writings through one EdD program. The participants were students who had completed

the EdD program and voluntarily submitted drafts of writings from Year 1 (Capstone I or

earliest draft), Year 2 (Capstone II), the committee-approved dissertation draft, and the

final published dissertation. The study consisted of participants from Sibley University's

May 2011 EdD graduates, five EdD students who defended their dissertation between

May of 2011 and December of 2011, and four students who defended in spring of 2012.

Seventeen participants agreed to a 19-question, taped interview; one of the 17 failed to

submit drafts of writings. An additional four participants submitted the required writings

but, due to time constraints, were not interviewed. Seventeen participants were

interviewed and 20 submitted writings for data analysis, with a gender breakdown of 85%

female, and 15% male. Seventy-seven percent of this EdD program's population during

this study was female. However, gender does not play a role in the study.

Quantitative Data

Hypotheses

Null Hypothesis # 1: There will be no difference in grade level, measured by the

Flesch- Kincaid Inventory, when comparing measures of the drafts of graduates'

dissertations from four points in the program: Capstone I or earliest available draft,

Capstone II, committee-approved draft and the completed dissertation.

For this hypothesis statement, the researcher scrubbed all four pieces of writings

from each participant leaving only the narrative. The scrubbed document reflected the

removal of the running head, title pages, table of content, list of tables, list of figures, all

levels of headings and subheadings, tables, figures, references, and appendices when

applicable. With the completion of the grammar and spell check through Microsoft

Word, one of the readability statistics generated was the grade level of the writing.

According to Fraenkel and Wallen (2009), in order to find out whether a significant

difference exists between the means of more than two groups, a technique called analysis

of variance (ANOVA) is used. Table 12 displays the results of the application of the

ANOVA for the difference in the means of the Flesch-Kincaid grade level for 20

participants and Table 13 results for 16 participants.

Table 12

Flesch-Kincaid grade level results for 20 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone 1)	20	281.3	14.065	3.575026
Year 2 (Capstone II)	20	284.6	14.23	6.016947
Final Draft	20	283	14.15	4.120526
Final Published Document	20	275.9	13.795	4.212079

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	2.145	3	0.715	0.159557	0.923199	2.724944
Within Groups	340.567	76	4.481145			
Total	342.712	79				

Table 13

Flesch-Kincaid grade level results for 16 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone 1)	16	225	14.0625	3.067833
Year 2 (Capstone II)	16	223.8	13.9875	6.7625
Final Draft	16	223.5	13.96875	4.106292
Final Published Document	16	217.7	13.60625	3.683292

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.99875	3	0.66625	0.151249	0.928493	2.758078
Within Groups	264.2988	60	4.404979			
Total	266.2975	63				

Note. ANOVA was used to analyzed the 16 participants' documents from the four benchmarks of dissertation writing.

Because the test value of 0.16 does not fall into the critical region, beyond 2.72,

the researcher did not reject the null hypothesis for the ANOVA for 20 participants.

Because the test value of 0.15 does not fall into the critical region, beyond 2.75, the

researcher did not reject the null hypothesis for the 16 participants. The data does not

support a significant difference in measured grade levels when comparing documents

from the four benchmarks of dissertation writing, at the 95% confidence level. No

difference in grade levels exists when comparing the documents from the four

benchmarks of dissertation writing.

Null Hypothesis # 2: There will be no difference in percentage of passive

sentences utilized when comparing measures of the drafts of graduates' dissertations four

points in the program: Capstone I or earliest available draft, Capstone II, committee-

approved draft and the completed dissertation.

Table 14 displays the results of the application of the ANOVA for the difference in the percentage means for 20 participants and Table 15 for 16 participants.

Table 14

Flesch-Kincaid percentage of passive sentences results for 20 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	20	300	15	88.10526
Year 2 (Capstone II)	20	279	13.95	97.31316
Final Draft	20	264	13.2	96.16842
Final Published Document	20	225	11.25	55.56579

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	150.3	3	50.1	0.59439	0.620591	2.724944
Within Groups	6405.9	76	84.28816			
Total	6556.2	79				

Table 15

Flesch-Kincaid percentage of passive sentences results for 16 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	16	218	13.625	89.71667
Year 2 (Capstone II)	16	209	13.0625	99.2625
Final Draft	16	181	11.3125	91.42917
Final Published Document	16	161	10.0625	53.6625

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	127.9219	3	42.64063	0.510558	0.676526	2.758078
Within Groups	5011.063	60	83.51771			
Total	5138.984	63				

Because the test value of 0.60 does not fall into the critical region, beyond 2.72, the

researcher did not reject the null hypothesis for the 20 participants. Because the test

value of 0.51 does not fall into the critical region, beyond 2.75, the researcher did not

reject the null hypothesis for the 16 participants. The data does not support a significant

difference in measured percentage of passive sentences when comparing documents from

the four benchmarks of dissertation writing, at the 95% confidence level. No difference

in measured percentage of passive sentences exists when comparing the documents from

the four benchmarks of dissertation writing.

Null Hypothesis # 3: There will be no difference in average characters per word,

average words per sentence, and average sentences per paragraph when comparing

measures of the drafts of graduates' dissertations from four points in the program:

Capstone I or earliest available draft, Capstone II, committee-approved draft, and the

completed dissertation.

Tables 16 - 21 display the results of the application of the ANOVA for the

difference in the means.

Null Hypothesis # 3cpw: There will be no difference in average characters per

word comparing measures of the drafts of graduates' dissertations from four points in the

program: Capstone I or earliest available draft, Capstone II, committee-approved draft,

and the completed dissertation.

Table 16

Flesch-Kincaid average characters per word for 20 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	20	106.7	5.335	0.043447
Year 2 (Capstone II)	20	105.1	5.255	0.071026
Final Draft	20	106.1	5.305	0.066816
Final Published Draft	20	105.8	5.29	0.078842

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.066375	3	0.022125	0.340212	0.796299	2.724944
Within Groups	4.9425	76	0.065033			
Total	5.008875	79				

Table 17

Flesch-Kincaid average characters per word for 16 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	16	85.6	5.35	0.044
Year 2 (Capstone II)	16	83.5	5.21875	0.065625
Final Draft	16	84.4	5.275	0.043333
Final Published Draft	16	84.1	5.25625	0.057292

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.14625	3	0.04875	0.927467	0.433097	2.758078
Within Groups	3.15375	60	0.052563			
Total	3.3	63				

Because the test value of 0.34 for average characters per word does not fall into the critical region, beyond 2.72, the researcher did not reject the null hypothesis for the 20 participants. Because the test value of 0.93 for average characters per word does not fall into the critical region, beyond 2.75, the researcher did not reject the null hypothesis

for the 16 participants. The data does not support a significant difference in measured

average characters per word when comparing documents from the four benchmarks of

dissertation writing, at the 95% confidence level.

Null Hypothesis # 3wps: There will be no difference in average words per

sentence when comparing measures of the drafts of graduates' dissertations from four

points in the program: Capstone I or earliest available draft, Capstone II, committee-

approved draft, and the completed dissertation.

Table 18

Flesch-Kincaid average words per sentence for 20 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	20	442.1	22.105	22.66471
Year 2 (Capstone II)	20	464.3	23.215	18.25082
Final Draft	20	462.2	23.11	18.13884
Final Published Draft	20	454.7	22.735	13.47818

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	15.10537	3	5.035125	0.277675	0.84134	2.724944
Within Groups	1378.119	76	18.13314			
Total	1393.224	79				

Table 19

Flesch-Kincaid average words per sentence for 16 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	16	353.9	22.11875	23.42162
Year 2 (Capstone II)	16	373.2	23.325	21.27533
Final Draft	16	371.5	23.21875	22.00829
Final Published Draft	16	360.9	22.55625	15.64796

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	15.59047	3	5.196823	0.252416	0.85931	2.758078
Within Groups	1235.298	60	20.5883			
Total	1250.889	63				

Because the test value of 0.28 for average words per sentence does not fall into the critical region, beyond 2.72, the researcher did not reject the null hypothesis for the 20 participants. Because the test value of 0.25 for average words per sentence does not fall into the critical region, beyond 2.75, the researcher did not reject the null hypothesis for the 16 participants. The data does not support a significant difference in measured average words per sentence when comparing documents from the four benchmarks of dissertation writing, at the 95% confidence level.

Null Hypothesis # 3spp: There will be no difference in average sentences per paragraph when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation.

Table 20

Flesch-Kincaid average sentences per paragraph for 20 participants

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	20	84.8	4.24	3.065684
Year 2 (Capstone II)	20	91.1	4.555	1.506816
Final Draft	20	91.2	4.56	0.866737
Final Published Draft	20	89.1	4.455	0.465763

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	1.3445	3	0.448167	0.303585	0.82271	2.724944
Within Groups	112.195	76	1.47625			
Total	113.5395	79				

Table 21

Flesch-Kincaid average sentences per paragraph for 16 participants

SUMMARY

Groups	Count	Sum	Average	Variance
Year 1 (Capstone I)	16	74	4.625	3.087333
Year 2 (Capstone II)	16	76.8	4.8	1.485333
Final Draft	16	76.8	4.8	0.781333
Final Published Draft	16	74.1	4.63125	0.410292

ANOVA

Source of Variation	SS	df	MS	F	P-value	F crit
Between Groups	0.472969	3	0.157656	0.109402	0.954287	2.758078
Within Groups	86.46438	60	1.441073			
Total	86.93734	63				

Because the test value of 0.30 for average sentences per paragraph does not fall into the critical region, beyond 2.72, the researcher did not reject the null hypothesis for the 20 participants. Because the test value of 0.16 for average sentences per paragraph does not fall into the critical region, beyond 2.75, the researcher did not reject the null

hypothesis for the 16 participants. The data does not support a significant difference in measured average sentences per paragraph when comparing documents from the four benchmarks of dissertation writing at the 95% confidence level.

The study found that there was no change in the areas assessed in the writing of the EdD students from Capstone I or earliest draft of dissertation through completion of dissertation.

Qualitative – Research Questions

The purpose of this section of Chapter 4 is to analyze the interview data collected for this study through the methodological techniques discussed in Chapter 3. The names used in the study are pseudonyms, and the researcher removed any identifying information to keep the identities of the participants confidential. The researcher of the study used the retrospective interview in order to address the research questions, "How do doctoral graduates perceive their writing has changed throughout the program. To what do they attribute these changes?"

Qualitative Theme 1: Self-perception of Writing Skills

In order to assess the perceived changes the researcher began with the question, "In your opinion, how strong a writer were you when you began the program?" Nine of the participants identified themselves as strong writers, seven as average writers, and one as a weak writer (see Table 22). The subthemes or codes from the interviews transcripts emerged included writing experiences before and during the doctoral program.

Table 22

Participants' self-assessment as a writer

ID	Gender	Marital Status	Age (time of interview)	Self-perception of Writing Skills (Strong – Average - Weak)
Amelia	female	S	35	Average
Bentley	male	M	38	Strong
Charla	female	M	33	Average
Edward	male	M	45	Weak
Essence	female	S	64	Strong
Fliece	female	M	34	Strong
Kalib	male	S	64	Strong
Katrina	female	M	31	Average
Maureen	female	S	33	Strong
Riley	female	S	54	Average
Rocellia	female	M	39	Strong
Shaundrika	female	M	57	Strong
Shoniece	female	S	27	Strong
Sofia	female	M	35	Average
Timara	female	S	30	Strong
Trinity	female	M	38	Average
Zoey	female	S	57	Average

As Table 22 shows, the researcher could determine no pattern of the participants'

perceptions of their own writing based on age, gender, or other demographic factors.

Self-assessment as a writer. The participants' perception of their own writing

abilities changed throughout the process of writing the dissertation, but no change was

reflected when the quantitative data was analyzed. Shaundrika said, "I thought I was [a

strong writer] and learned so much more through the process of the dissertation. I am

sure my first draft was full of plagiarism, because I did not know how to paraphrase or to

cite correctly." Shaundrika contributes her success of completing the dissertation to

tactful feedback from the Supervisor of Research, who made this written comment on one

of her drafts, "didn't this come from …" with the exact reference attached. This caused

Shaundrika to become aware of the necessity of citing correctly using APA style. After

being shown how to correct the citation and paraphrasing problems, Shaundrika said, "I loved her [Supervisor of Research] feedback." The Supervisor of Research served on her committee and gave her written feedback as well as verbal feedback.

Essence, a second participant, also felt she was an accomplished writer, "I felt like I was really strong, but it [dissertation writing] was a whole new area of writing." Essence's writing experience prior to the dissertation process included grant writing, writing speeches for technical conferences, and writing conference proposals. She summarized dissertation writing as requiring more detail and elaboration than her own writing experiences. Kalib, one of only three males interviewed, believed he was a strong writer, but he said "My chair helped with the writing, the concept of what was going on…helping me clarify what I was doing, and how the language I was selecting would be perceived in the academic audience." Writing to a scholarly audience was an issue that challenged several of the participants.

Nine participants out of 17 were confident that their writing abilities were strong prior to entering the doctoral program. As Timara put it, "I thought I was a strong writer, I have an English background so I thought that was going to help me and I realized I needed more help." Timara concluded, "You have to edit something a lot before it can be something that is really good." Sofia has two master's degrees, one in biology, and one in educational administration; she said, "I don't consider myself to be a writer. I am using parallelism and don't have spelling or grammar problems, but as far as quality… I don't consider myself as an accomplished writer." The majority of the participants in the study classified themselves as strong writers but noted their own improvements

throughout the process of writing a dissertation. An explanation of student's perception

of writing improvements during the doctoral program is discussed later in the chapter.

Writing experiences before doctoral program. The writing experiences of the

participants prior to writing the dissertation influenced the answer to the interview

question, "In your opinion, how strong of a writer were you when you began the

program?" Experiences in previous graduate and undergraduate coursework influenced

the participants' perceptions of their writing abilities. Rocellia said, "I was a fairly strong

writer when I began the program because of all the [writing] experiences I had in [my]

undergraduate and in my master's program." Rocellia's undergraduate English major

program required writing article reviews, multiple research papers, and a thesis. For

some, writing experience extended to high school; for example, Shoniece felt sure that

her identity as a strong writer was due to the training that she had received in high school.

"When I entered college … I took my first writing course and the teacher commented on

how strong of a writer I was." Edward considered himself as a weak writer; however,

unlike some of the other participants, he did not have previous degrees in English. He

said, "I was a really bad writer, not sure why. I still don't deem myself as a very good

writer, though I am a lot better today than I was before entering the program." Edward

admitted organizing his writing and making it flow was a big challenge.

The participants noted a variety of writing experiences prior to the EdD program.

Kalib, a middle school communication arts teacher, said he "worked hard on the writing

process with [my] students and every assignment I gave to them I also wrote as a model

for them to see." He went on to say, "I was a strong writer before I started teaching" but

did not expound on the statement. Yet Zoey categorized herself as an average writer who

said, "My master's degree comprehensive final was a set of three research papers that were very formal." Trinity reported it had been eight years since she had written in a scholarly fashion.

Despite each participant holding at least one graduate degree in the field of education, nine of the 17 participants referenced the lack of prior experience with APA style. Shaundrika spoke about support she had accessed during the writing of her dissertation; one peer outside the program "was so wise with APA, which really helped me through my writing." Two of the females, Amelia and Trinity, and all three of the males in the study expressed a lack of knowledge and confidence in working with APA style. Essence stated, "I used the writing center, but only once or twice because the person working did not know APA." Shoniece said, "The biggest challenge, I think was learning APA." In conclusion, the prior writing experiences of the participants in the study did not influence either positively or negatively the writing of the dissertation.

Writing experiences during the doctoral program. The reported experiences of the participants during the EdD program are important since the quantitative data reflects the work they did in the program. The participants in the study have earned an EdD in educational leadership; however, the emphasis area course requirements vary. The emphasis areas under the EdD Educational Leadership are educational administration, andragogy (adult learning), and higher education. The researcher did not categorize the participants in the study under the emphasis area for data analysis. Thus, the courses each participant took may have varied. In addition, professors may change course assessments, activities, etc. from semester to semester. The available university support and professors may also have changed from one semester to another.

In general, participants noted the lack of scholarly writing in courses throughout the program. Amelia said, "There wasn't a whole lot of writing in most of the classes that I took." Zoey stated the same thing; the required writing for the courses was "chapter writing for each of the Capstones." Edward expressed his writing for courses other than the capstones were minimal. Katrina said, "The capstone courses [required] had the most writing, although there were a couple of other classes that did require at least some writing." Rocellia, Shoniece, and Sofia mentioned reflective writing as the most common type of writing required other than the research writing in a course dealing with 21st century issues. Timara believed that the coursework required "a lot of presentations" rather than writing; Rocellia also mentioned presentations "like PowerPoint stuff." The researcher concluded from the answers acquired through the interviews that the writing experiences prior to the capstone courses varied, but scholarly writing preparation was not the reported focus in the coursework.

Qualitative Theme 2: Writing Concerns

Feedback during coursework. While the participants may have reported little emphasis on writing in the coursework, feedback on their writing was important to them. Charla said, "Feedback on writing depended upon the professor. I remember one semester … no feedback on our writing." Riley expressed much the same idea about feedback, "Letter grades, I believe some check marks. Short comments 'nice job, well written,' those kinds of comments." Fliece who was "pretty confident about writing" said, "I felt the teachers took time to read through your work and give you feedback on your work… write comments like 'oh I really like that point' or 'have you thought about

this point.'" Bentley, another confident writer, stated, "21st century issues, I got a lot of feedback using Microsoft review tracking. Primarily other feedback was verbal."

Other participants mentioned this specific course as well. Shoniece said, "It wasn't until [21st Century Issues] that I actually got some constructive [feedback], how to actually work with APA, how to structure different paragraphs and sentences." Sofia, who also considered herself a strong writer, acknowledged that very few classes gave feedback on writing, but she did receive excellent feedback in 21st century issues. Rocellia's comment related to feedback was, "Everything was really strong, and most of my professors said you are a really strong writer. I got As on all of my assignments." The participants did not mention specifically what the feedback entailed; one mentioned receiving feedback with track changes.

Feedback during the Capstone Courses – dissertation writing. In theory, writing the dissertation takes place throughout the Capstone courses; however, participants reported the majority of the feedback came from the dissertation chair, committee, and from the Capstone III professor. Rocellia shared positive experiences related to feedback. Her chair and committee "gave feedback right away so I didn't have to wait on anybody. Cap II professor was really, really helpful. I ended up writing the majority of Chapters 1, 2, and 3 in Cap II and he [the professor] had a lot of good feedback."

However, other students reported a different experience. Sofia's chair and committee supported her with feedback on the content, but as far as feedback from the writings in Capstone I and Capstone II, Sofia said, "There was no quality feedback; it was more like a check mark." Amelia talked about receiving a lot of feedback in

Capstone III. The students turned in pages from each chapter of their dissertation, and the Capstone III professor returned the work with edits and feedback. The Capstone III professor did not give feedback overall on the dissertation in its entirety but only on a few pages in each chapter. Timara said, "I saw lots of feedback, and it would be grammatical … some of it was suggestions … of things to think about or change." Some students received this feedback from a Capstone professor, others from their dissertation committee chair.

Shaundrika felt that she did not receive feedback until she enrolled in Capstone III. Shaundrika said, "If you aren't getting the feedback, it [dissertation] is not getting completed." She and her chair disagreed on the direction of her writing. When she enrolled in Capstone III, the professor became what she referred to as the "key player" in completing her dissertation. Feedback from the Capstone III professor directed the flow of Shaudrika's writing and provided encouragement.

Finding time to write dissertations and the time waiting for feedback were challenges for some participants. Trinity had a timeline in when she thought she would complete the doctorate, and she felt that she did her part in meeting the requirements. Trinity said, "I was waiting for my committee members to give me feedback so I could make changes. Based on the results that came back, I had to amend my IRB and go back to people in my study and ask specific questions." Maureen also spoke about not receiving feedback in a timely manner, even though the chair and committee provided good feedback. Riley struggled finding a committee from the start. She said, "Then after all of that was kind of established [chair and committee], there were communication issues. It took months sometime to get feedback. One time in particular, it took two and

one-half months to get feedback on one chapter." Rocellia shared, "Everybody [chair and committee] wanted a different opinion; everybody had a different opinion that read it. Someone said add this and somebody said add that."

Each participant of the study had his/her own experience in relation to feedback and his/her own expectation. Trinity expressed that feedback directed the writing of the dissertation and helped reinforce confidence. The data reflected feedback came from the dissertation chairs and committee members more than from the professors teaching the capstone courses.

Challenges in dissertation writing. The participants of the study were all employed full time and had numerous and demanding responsibilities. See Table 23 for descriptive data.

Table 23
Descriptive data of participants in study

ID	Gender	Marital Status	Age (time of interview)	Job (During EdD Program)
Shaundrika	female	M	57	Teacher, sabbatical last year of writing
Rocellia	female	M	39	Teacher
Edward	male	M	45	Teacher
Timara	female	S	30	Teacher
Zoey	female	S	57	Health Care Field – 12 hour days
Maureen	female	S	33	Teacher
Bentley	male	M	38	School Administrator
Fliece	female	M	34	School Administrator
Riley	female	S	54	School Administrator
Charla	female	M	33	Teacher, sabbatical last year of writing
Amelia	female	S	35	Graduate Assistant
Trinity	female	M	38	Two part time jobs
Katrina	female	M	31	Teacher
Kalib	male	S	64	Graduate Assistant
Essence	female	S	64	Retired
Sofia	female	M	35	Teacher
Shoniece	female	S	27	Teacher

The challenges to completing the writing of the dissertation cited by the participants varied, but three of the 17 said finding time to write the dissertation. Sofia had a family of three small children as well as a full time teaching job. Though she considered herself an average writer, she said, "I don't perceive myself to be a great writer, so there were a lot of times that I would just stare at the computer and say 'I don't know what to write.'" Fliece also had small children and worked 60 – 80 hours a week. Finding the time was her biggest challenge as well. Katrina, a teacher and a mother of small children said, "It wasn't actually the writing; it was making sure I was sitting down and doing it. It was finding the time." All of the students understood the EdD degree would be a challenge but had no prior experience on which to base an estimate of the actual time it would require to complete the dissertation writing.

Kalib said, "The major challenge [in writing the dissertation] was the capstone program in my opinion didn't fit the needs of 12 hours of time to complete a dissertation." Kalib expected to write Chapters 1 and 2 in Capstone I, Chapters 3 and 4 in Capstone II, and polish and edit those chapters in Capstone III along with writing Chapter 5. The structure of the EdD program did not meet Kalib's expectations. He mentioned the importance of having a committee by Capstone I in order to progress with the research writing. Trinity noted, "The writing is a different kind of writing, so that was a little bit of a challenge and just waiting on others to give you the feedback." Rocellia shared her major challenge was "doing all of the literature review. It was finding time to do all the research."

Shaundrika said the biggest challenge to her was "feeling capable." She was the only participant in the study who shared that concern. Amelia indicated that she believed

that she had a tendency to ramble in her writing, "A major challenge to me was I had a

hard time deciding what was important enough to put into my dissertation." The

dissertation chair and committee met with Amelia regularly and gave feedback. In fact

Amelia said, "They [dissertation chair and committee] met with me regularly; they gave

me feedback all of the time, they edited my paper, and they were absolutely wonderful."

Timara, Maureen, and Edward had a challenge in narrowing their topics for their studies.

The biggest challenge for Shoniece was learning APA. Bentley and Riley stated their

biggest challenge was obtaining the data from their research sites. In summary of the

biggest challenges to writing the dissertation, more participants, six out of 17, mentioned

the time required, whether finding time to write, or finding the time required to write a

literature review, or waiting time for feedback.

Qualitative Theme 3: General Evaluation of Doctoral Program

      EdD program.. Five other universities within a 25-mile radius of Sibley

University offer a Doctor of Education, as well as online doctoral degrees. Students

desiring to acquire the doctoral degree have choices; however, if the program a student is

part of is not meeting the needs of the student or student expectations, it is not difficult to

move to a different university. Katrina said, "Overall it [Sibley University's EdD

program] was a good experience. I enjoyed the professors; I felt like they knew what

they were doing, and they knew their topics." Sofia expressed, "If I had it [EdD

program] to do over again I would come back to … [Sibley University]. I looked at

[three other area universities] I chose [Sibley] specifically because I could go at my own

pace and there wasn't a cohort."

Shoniece [strong writer], who earned a master's degree in a mathematics field from a prestigious university, said, "I wouldn't say it was the hardest degree that I ever did, but it was interesting and I learned a lot." Timara stated that at the time she entered the program no admissions criteria had been established, although this has since been changed.

> Some people just wanted to float through. I wanted this degree because I wanted to work for it, so it was a little different for me to experience that. I had good and bad experiences with the program, more so positive at the end, not so positive at the beginning.

Edward spoke along the same vein,

> I can't say I was completely impressed with the program. I enrolled because it was close to home and I could afford it. I was frustrated because most of the time, I was in classes with [school] administrators and the topics discussed were totally different or off the wall with me being a … classroom teacher.

For various reasons including unexpected faculty departures, the doctoral program went through a change of leadership, and additional faculty were hired two years after the program was started. Edward said, "By the time I finished, I was very proud to say I have a doctoral degree from [Sibley University]." Kalib stated, "They [entire faculty] were all wanting to see me succeed and that is the most powerful thing a university can do." Charla's reflections took her back to Sibley University's master level classes and the comparison of the master's program and the doctoral program: "The doctoral level was a lot deeper level, actually analyze and reflect on what you were learning, … definitely higher Blooms Taxonomy [experiences]." However, Riley referenced her

disappointment ranging from entering the program to the end of the program. Finding a

committee was her first challenge, and the second challenge was dealing with two

committee members with different writing styles and different expectations. Riley also

reported "My Capstone I had no expectations in that class, my Capstone II experience

was worthless. Capstone III, I felt like that was another one that did not benefit me."

The professors' expectations were different from her dissertation chair and committee's

expectation. The majority of participants spoke about the doctoral program as a positive

experience with phenomenal people in leadership who care about people.

     Timeline. A misconception was prevalent among the participants based on every

other degree the participants had completed. Many believed that successful completion

of the required coursework should equate to a degree; after all, 12 hours of the doctoral

program are devoted to dissertation writing. On an average, it took the EdD student eight

semesters to complete the program. The range was 4 – 11 semesters. Timara said, "I

wanted to be done when I was done with classes [I wanted to have my dissertation

written when I completed my coursework]. Then I got my writing done the next

semester, but Christmas Break for faculty push[ed] me out to January for my defense."

Timara began her coursework in the fall of 2007 and defended her dissertation in the

spring of 2011; she was in the program 10 semesters. Katrina answered the timeline

question by saying, "I was about a semester off because I didn't realize that you wouldn't

finish [the dissertation] in Capstone III." Edward commented, "The intensity of the

writing and how much writing I had to do was the reason that I did not meet the [my]

deadline." Kalib said, "I should have finished, in the way the timeline was explained to

me, in December of last year [2010], and while I had several drafts [turned] in and

feedback from several drafts, it wasn't completed then. So it took until April [2011] to get it finished. I was disappointed." Riley (nine semesters) and Bentley (10 semesters) were the only two participants in the study who met their timeline; neither of them felt they would be finished by the end of their last capstone course and set their timeline one semester past their coursework.

University's services. Sibley University's librarians provide a variety of services with reference librarians' assistance face-to-face, electronically, and over the phone. Students have access on campus or remotely to a wide variety of scholarly databases, as well as intra library loan for material not housed at the university's library. Zoey said,

> I really had a lot of help from the library. I found them very helpful. I would say
>
> that I am trying to find information specific to this group of students and I am not
>
> having any luck. [specific name] the reference librarian would look up topic, as
>
> well as suggest different key words.

Rocellia said, "I used the library a lot. They were all really helpful in there." Shaundrika, Maureen, Timara, Edward, and Essence acknowledged the importance of the library, as well. Kalib stated, "I used the library quite a lot. I used lionmail [university's student email], which was absolutely wonderful to back up my dissertation drafts." Charla used the electronic databases remotely and the writing center. The Supervisor of Research suggested that Charla schedule an appointment with a tutor in the writing center for assistance with a problem using passive voice. Charla said, "The writing center tutor and I worked on improving my writing and moving to active voice." Trinity confirmed, "Basically my chair, the writing center, and the courses were my helps." The participants

in the study overwhelmingly applauded the contribution of the library resources, as well as the assistance from the librarians.

Dissertation experience taught me… The researcher asked the question, "What did you learn from your dissertation writing experience?" Riley adamantly stated, "What did I learn, how not to do it, how not to have a doctoral program! Sometimes that is just as beneficial as knowing how to, knowing how not to is a good thing." Riley felt she had failed to do her day job well during the time of research writing, as well as failed in producing quality work in her dissertation. She recognized that the majority of EdD students worked full time and had no solution to the division between the job requirements and the dissertation requirements. Zoey said, "The most important thing I learned was accepting criticism, accepting feedback for what it is; it isn't an assault on your character, it really is just feedback." Kalib felt the same way and said, "I re-learned how hard it is to take editorial criticism." Both Charla and Shoniece acknowledged that they now could accomplish what they set their head to accomplish. Edward stated, "I think I am a better thinker than I was prior to my research writing and I still have a lot more to learn." Fliece said she learned "the life lesson of how ever much effort and time you put into something that is exactly what you are going to get out of it."

Sofia said, "If I had it to do over again, I would be so much better at it. I learned so much about citation, and I learned a lot about passive voice." Amelia believed writing a dissertation required the expertise of a research writer. The style of scholarly writing is a style not assessed in writing assignments even in the EdD program. Amelia said, "I enjoyed learning about writing, … and the process of writing the dissertation." Katrina's learning was about putting many different thoughts together in one cohesive story; "The

dissertation flows from paragraph to paragraph and from chapter to chapter." Timara said, "I learned you have to edit something a lot before it can be something that is really good." Maureen stated,

> Before [writing the dissertation] I really didn't know what a dissertation should look like, how you would even go about writing about research, how you would use statistics, or how you would talk about it in writing. I definitely have a better idea now.

Shaundrika said, "I learned that research was really everything, even more so than writing. First I had to research to find out what I was thinking or build on what I was thinking before I could get it written down." The experience of writing a dissertation compares to no other experience.

Summary

The three null hypotheses presented in this study were not rejected following analysis of the data; therefore, the alternative hypotheses were not supported. The study did not find statistical differences in comparing the average grade levels, percentage of passive sentences, and characters per word, words per sentence, and sentences per paragraph of documents submitted for each of four major benchmarks in the dissertation writing process. In order to find out whether there were significant differences, analysis of variance (ANOVA) was applied to data collected from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation. The ANOVA was applied to data generated by the initial sample of students, and to four additional graduates who did not participate in the qualitative portion of the study. The results of these statistical analyses were the same for the

sample of 16 students who also participated in the qualitative portion of the study and the

sample of 20 that included four additional students who did not. In both instances, the

data did not support the alternative hypotheses that significant differences in writing

characteristics would occur through the dissertation writing process.

The research question was, "How do doctoral graduates perceive their writing has

changed through the program, and to what do they attribute these changes?" Three

distinct themes evolved from the interview transcripts: (a) self-perception of writing

skills, (b) writing concerns, (c) general evaluation of the doctoral program. Each theme

had subthemes emerge discussed in this chapter. In the concluding chapter, the

researcher will outline the interpretation of the data, programmatic suggestions, and

possible future studies.

Chapter Five: Discussions

The purpose of the study was to explore and measure the possible changes in doctoral students' writings, both perceived and measurable. The exploratory research was to gain a deeper understanding and possibly uncover information faculty could use to improve the doctoral students' writings. The study consisted of participants from Sibley University's May 2011 EdD graduates plus five EdD students who defended their dissertations from May of 2011 through December of 2011 and four additional students who defended in spring of 2012. All but one had voluntarily submitted drafts of writings from Year 1 (Capstone I or earliest draft), Year 2 (Capstone II), the committee-approved dissertation draft, and the final published dissertation. Seventeen participants agreed to a 19-question taped interview, one of whom failed to submit drafts of writings. An additional four participants submitted the required writings but, due to time constraints, were not interviewed. In addition, the researcher kept a reflective journal during the study and included a few entries in the *Researcher's Reflection* section.

Interpretation of the Data

This study analyzed perceived and measurable changes in students' writings through the doctoral coursework and the dissertation writing process, along with interviews to measure students' perception of changes in their writings. Students submitted drafts of dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation. In order to discover whether there were significant differences among the means of grade level, percentage of passive sentences, sentences per paragraph, words per sentence, and characters per word, the researcher used ANOVA to analyze the data. The analysis of the

students' 30-minute audiotaped interviews provided data for the research questions: How do doctoral graduates perceive their writing has changed through the program? To what do they attribute these changes?

A deliberately planned set of writing strategies delivered in coursework offered from the dissertation chair and committees, and shared in workshop settings, such as those held in Capstone III, are independent variables in the study. The writing characteristics measured by the Flesch-Kincaid included the reading level, number of syllables per word, number of words per sentence, number of sentences per paragraph, and percentage of passive sentences in documents submitted by participants in the study were dependent variables. The reading level is the number of years of education it takes to understand the writing.

Alternate Hypothesis # 1: There will be a difference in grade level, measured by the Flesch- Kincaid Inventory, when comparing measures of the drafts of graduates' dissertations from four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Alternate Hypothesis # 2: There will be a difference in percentage of passive sentences utilized when comparing measures of the drafts of graduates' dissertations four points in the program: Capstone I or earliest available draft, Capstone II, committee-approved draft and the completed dissertation.

Alternate Hypothesis # 3: There will be a difference in average characters per word, average words per sentence, and average sentences per paragraph when comparing measures of the drafts of graduates' dissertations from four points in the program:

Capstone I or earliest available draft, Capstone II, committee-approved draft, and the completed dissertation.

The grade level of the EdD students' writings did not change statistically from the beginning of the dissertation process through the writing of the final document for any of the measured characteristics of grade level, percentage of passive sentences, characters per word, words per sentence, and sentences per paragraph. Therefore, data did not support Alternate Hypotheses # 1, 2, or 3. The Flesch-Kincaid measurement of each variable did not reveal any significant changes in the EdD students' writings. Sibley University did not require or offer a scholarly writing class at the time of this study, yet EdD students are required to write 100 pages or more in a scholarly style. Perhaps the professors assumed EdD students already had strong writing skills, and, therefore, did not teach writing. However, the EdD students' writing remained static throughout the dissertation writing process.

Chapter 2, the literature review, provided an evolution of models of writing, thus a timeline of the writing process. Some participants of this study could have been in middle school or high school at the same time other participants were in the early stages of their teaching career. Because of the wide age range of the participants, the writing instruction would have been different. For instance, in 1980, composition theorists Hayes and Flower's objective was to find ways to instruct others on how to write. At that time, reading had been researched and emphasized in the K-12 setting; few studies had concentrated on writing. Even though some participants were middle school or high school students while others were classroom teachers, the teachers were not all communication arts teachers. Typically, instruction in writing is the responsibility of the

communication arts teacher, and few teacher education programs require specific

coursework in writing for teacher certification (Norman & Spencer, 2005).

However, the EdD students' perceptions about their writings changed. In Chapter

4, Qualitative Theme 1: Self-perception of writing skills, participants of the study shared

information about changes that took place during the process of writing the dissertation.

The feedback from the dissertation chair and committee played a strong role in

participants' perception of the development of their writing skills. Participants

referenced improvements with paraphrasing, applying APA style citations and

bibliographical records, learning to select the language for the perceived academic

audience, developing paragraphs, and editing. Participants credited edits from the

dissertation chair and committee for improvements in their writings skills. After the

completion of the dissertation, the self-assessed strong writers admitted their perception

of their writing skills at the beginning of the dissertation process was strong but they

questioned whether they had self-assessed correctly. Scholarly writing was a new

experience. In hindsight, the participants reevaluated what they thought they knew and

compared it to how the dissertation process improved their scholarly writing. Though

there was no improvement according to the Flesh-Kincaid measurement, the participants

acknowledged that they believed that they were a stronger writer due to the dissertation

writing process. The tool used to analyze the writings cannot measure the quality of the

writing.

Researcher's Reflections

The Sibley University researcher compared the experience of writing the required

five chapters for the dissertation to writing in five different genres, with guidance, but not

direct instruction, on how to write in each genre. Kania-Gosche (personal

communication, September 11, 2012) connected the five dissertation chapters with five

genres (see Table 24).

Table 24

Dissertation chapter titles and writing genres

Dissertation Chapter Title	Genre
Introduction/Overview	Expository
Methodology	Procedural
Results: Quantitative	Technical/Scientific writing
Results: Qualitative	Narrative
Discussion	Persuasive

During the process of writing the dissertation, the researcher kept a writing journal to

compare her own experiences to those of the participants. The following entries are a

selected few from the writing journal.

January 24, 2011. The definition of feedback in this study: feedback can be

delivery of specific instructions, encouragement, or statements from the dissertation

committee chair and/or members. At the point of this entry, I am in my first capstone

course, spring 2011, and one year after I started the EdD program. Early in the semester,

I wrote the beginning of the dissertation following the directive of the instructor. At the

beginning of the dissertation process, I felt confused. I completed assignments related to

parts of the dissertation, for instance working exercises in the course textbook, but the

building of the dissertation document appeared to be an isolated work. I wanted feedback

that equated to direction about my specific dissertation rather than encouragement or

overall advice about dissertation writing.

March 24, 2011. I have managed to write several pages; however, I am unsure of

the quality of the work. The document has an introduction, short literature review, and

the beginnings of the planned methodology for the study. Even though I have read or

skimmed several dissertations, I am still unclear whether I am on target. As an

inexperience writer, I need feedback to validate I am on target with the dissertation

process. I have received handouts from my chair, as well as articles related to my study.

I have had verbal contact, but I need specific feedback on my writing.

April 25, 2011. FEEDBACK! My chair has returned the document that is in the

very early stages of a draft of chapter one, two, and three. A professor in a Capstone

class can model the general expectations of what goes in a chapter of a dissertation, but it

does not equate to specific feedback from the dissertation chair. When my chair says,

"This seems really specific for the first two sentences of the paper. I like the next

sentence better, especially the word 'explore.'" I have specific directions to my

document and can make the adjustment accordingly. Here is an example of

encouragement: "Excellent, put this sentence on your IRB rationale." Another example,

"This seems pretty random, the intro should be more general. Why would the average

person off the street care about your topic? You have to persuade the reader of the

relevance." This feedback directs and challenges me to make important, necessary

changes in the document.

September 13, 2011. At the point of this entry, I am in my second capstone

course, fall 2011. It has been a while since I have taken time to journal anything about

my writing. I have submitted the prospectus and have received a review. Two members

of my committee have been very helpful in reviewing the prospectus. My dissertation

chair encouraged me to go ahead and work on the IRB. This writing was much easier

than the other writings because I had talked enough with my chair to understand

specifically what I was to do, and there were also specific questions to answer. I still

have an overwhelming sensation about the massiveness of the writing of the dissertation.

However, I do not doubt that I can accomplish the task; I am enjoying the process.

March 12, 2012. At the point of this entry, I am in my third capstone course,

spring 2012. Around the beginning of March, I felt that I needed some directive and or

support from my chair. It had been weeks since I had had feedback. Though my chair

was on maternity leave, I did expect to get feedback from her after sending my document

on February 26. On March 10, I sent an email stating that I felt abandoned. My

instructor of Cap III, who is a friend with my chair, said to me in class on Monday,

March 12, a "little birdie" had told her to encourage me to continue writing. Though I

was apprehensive about the content, I had not stopped writing. Perhaps my chair felt that

I was not producing pages. The professor and I had a conversation about my lack of

feedback from my chair. She said that my chair was extremely busy at this time. On

Tuesday, March 13, I composed an email to both the professor and my chair for direction.

I did get a phone call from my professor saying again that she was more than willing to

help, and I received an email from my chair with a few edits and some encouragement.

At this point, my chair explained that if she felt there was a major problem with my

writing that she would have made more contact with me. The feedback was encouraging.

My experience was similar to some of the participants. Shoniece said in her interview, "One of my committee members really helped me lay out exactly what he wanted to see in chapter 2 because that was the one I was really struggling with." Charla's chair instructed her to send the document every time she made a change. Amelia met with her chair and two committee members frequently and received edits and feedback. All three expressed their appreciation of the lead their chair or committee provided.

April 6, 2012. Today I had an email from my chair stating that Chapter 3 was in good shape. That was good to hear, but I had a hard time believing that there would not be many edits when it came to the final read. I had hoped that I would get feedback and edits along the way. I had heard horror stories of EdD students submitting their final draft of the dissertation, and the dissertation returned with feedback that required hours and hours of work before turning the dissertation in again. Part of the feedback was related to literature reviews where a student had researched a topic that the chair and committee felt was not a good fit or appropriate for the dissertation.

Researcher's reflections summary. As I stated at the beginning of my reflections, I felt that writing my dissertation was like writing five different genres with guidance but not direct instruction on how to write in each genre. I believe that the EdD professors assumed the students understood the content and could make a connection between the course content and the writing of the dissertation. Amelia said in her interview, "I think it was assumed that we knew a lot more than we did in the [capstone] classes." I can relate to Amelia's statement. I know my dissertation chair has a great deal of experience with dissertation writing, and at times I had questions but did not

know enough to verbalize my confusion. Kalib said, "As a beginning EdD student, I did

not understand what you had to get done first." The interviews validated that my

experiences were similar to others who have been through the dissertation writing process

a year or more earlier. Writing a dissertation is unlike any other writing experience; each

step is a step of faith believing or questioning that the step is going in the right direction.

This encouragement could be as simple as the dissertation chair or committee member

looking at the table of content and saying, "I have not had time to read every word, but

from what I see at a glance, you are on the right track, keep writing."

Researcher's Personal Application of Flesch-Kincaid

I used the Flesch-Kincaid tool, created to analyze text complexity, for my own

writings, as well as those in my study. After writing 10 to 15 pages, I ran the Flesch-

Kincaid readability test and captured a picture of the results. The combination of

Microsoft Word's grammar and spelling tools and the Flesch-Kincaid readability test

gave me valuable feedback. Table 25 reveals the results of the Flesch-Kincaid readability

test on my dissertation at the same four data points used in my study. I ran the Flesch-

Kincaid readability test more often than is reflected within the table.

Table 25

Flesch-Kincaid analyses of researcher's dissertation drafts

	Sentences per paragraph	Words per sentence	Characters per word	Passive Sentences	Flesch-Kincaid Grade Level
Year 1 (Capstone I)	4.3	21.5	5.3	18%	14
Year 2 (Capstone II)	3.5	21.5	5.4	19%	13.8
Final Draft	5.1	21.8	5.3	4%	13.3
ABP*	5.5	23.8	5.3	4%	13.8

*All but published

I made a concerted effort to minimize the percentage of passive sentences, and the table

reflects the success. Changing the passive voice to active was an easy fix in most

sentences, but the grade level of my writing did not increase, similar to the statistics from

the participants. To increase the grade level using the Flesch-Kincaid readability tool, all

the statistics must increase: the syllables per word, words per sentence, and sentences per

paragraph. Rothman described the readability formulas:

> The formulas [Flesch-Kincaid Grade Level, Flesch Reading Ease, Lively-Pressey
>
> Method] measure text complexity quantitatively using two dimensions:
>
> vocabulary and syntax. They are based on the idea that texts containing a lot of
>
> words unfamiliar to students and long, complicated sentences are more difficult to
>
> understand than texts using common words and shorter sentences. (Rothman,
>
> 2012, p. 2)

The percentage of the passive sentences for the last draft before the APA read for the

researcher was 4%, and the average percentage of passive sentences of the participants'

published dissertation in the study equaled 11.25%. However, the researcher's grade

level of the writings aligned with the average of the participants in the study.

As mentioned earlier, the Flesch-Kincaid Grade Level test cannot evaluate the

quality of the writing or the complexity of a piece. Rothman (2012) cited Earnest

Hemingway's *The Old Man and the Sea* as a prime example. The readability formulas

would rate Hemingway's book as an easy read "because it uses relatively simple

language and short sentences, but it is actually quite challenging because of its metaphors

and the ideas it tries to convey" (Rothman, 2012, p. 2). The Sunlight Foundation,

dedicated to government transparency, used the Flesch-Kincaid readability test on

congressional speeches and found that in 2012, the speeches were at a 10.6 grade level,

while in 2005, the congressional speeches were at the 11.5 grade level (Drutman, 2012).

As I reflect on my study, my question for the faculty of the doctoral program is:

"Is the average readability grade level of the dissertation important?" Another question,

"Do you expect the doctoral student's writing to change throughout the dissertation

writing process?" "The U.S. Constitution is written at a 17.8 grade level and the

Gettysburg Address at the 11.2 grade level" (Rothman, 2012, p. 1). The more I learned

through the research, the more I learned that the assessment of writing is as complex as

the writing process is complex.

Recommendations

The following recommendations are based on the results and conclusions drawn

from the ANOVA assessment of the drafts of dissertations from the four points in the

EdD program. Some of the researchers' recommendations are appropriate for all Sibley

University professors and students, not just the EdD professors and EdD students.

All Sibley University professors, graduate and undergraduate, should model and

evaluate scholarly writing with constructive feedback. Scholarly writing instruction is

rare in graduate programs, the faculty may lack research and writing experience, although

they may be knowledgeable about their content field (Mullen, 2006; Nielsen & Rocco,

2002). In order to contribute to the development of scholarly writers, the researcher

suggest that the professors should have an opportunity to enroll in a scholarly writing

course or attend seminars where scholarly writing is modeled, as well as identified and

analyzed. A seminar is a meeting for discussion or training. Perhaps, the professors

interested in leading the charge to improve scholarly writing at the undergraduate and

graduate levels could be offered a course reduction, in order to develop their expertise,

with the expectation of instructing others (National Writing Project & Carl Nagin, 2006).

Mullen (2006) was clear about universities' responsibilities to students in regards to

improving writing. University faculty members need to examine their instructional goals,

along with the curriculum, and decide where teaching writing best fits within each

program. Scholarly writing is not a remedial class completing worksheets whether it is

for professors or doctoral students, but the course would include integrated APA style,

paraphrasing, analysis of peer-edited works, etc. This course is not designed for non-

native speakers of English; the curriculum would build on basic knowledge of the

English-speaking student. The time factor would not allow for the development of the

non-native speakers of English.

Shoniece, who completed her dissertation within her timeline, spoke about

identifying her dissertation topic early in the program. Shoniece said, "Because I had

chosen my topic, any assignment I had I connected to my dissertation writing." The

researcher recommends each professor, prior to the Capstone courses, informs all

students to work toward identifying the topic of their dissertation, to consider possible

candidates for their dissertation committee and dissertation chair, and to make mention of

the prospectus, the IRB, and CORD meetings. The point of the recommendation is that

while the steps to the dissertation writing process may seem simple to the professors, it

may be unfamiliar and foreign to most EdD students. The curriculum leaders of Sibley

University's doctoral program should consider adding a course in scholarly writing,

which means dropping a course already offered in order to stay competitive with the total

credit hours required by other universities. The writing assignments should have the

flexibility of becoming part of the student's dissertation. For instance, when the literature review is taught and assessed, the student will submit a small review of literature on the topic of his/her dissertation. A chance exists, however, that the EdD student's topic will change before the study, running a risk that any writing they do will be obsolete if their topic changes. Even if the topic changes, the student will still have had the experience/practice that he/she can apply to the new topic.

Technology plays a large part in writing of the dissertation, which may be drastically different from that which was used by professors when they wrote their dissertations. Not only does the researcher use technology to access electronic databases for peer review materials, reserving books, saving an extra digital copy of the dissertation, and communicating with professors, but the researcher also uses the computer to compose the dissertation. Microsoft Word has a variety of tools that can make a difference in grammar and style, if a student understands how to apply the tools to his/her writing. Word also has tools for creating tables, tables of contents, the navigation panel, and a reference list, etc. The researcher recommends students have access via email or face-to-face appointment with a designated person for trouble shooting technological issues. EdD students should be shown the tools available multiple times throughout the program by either the professor or an invited guest lecturer. Another technological tool available, embedded within Microsoft Word, is the Flesch-Kincaid's readability test. I recommend that professors require the Flesch-Kincaid readability test administrated prior to submitting any writing assignment. The result of the Flesch-Kincaid is displayed in a table. The professor can require a snipit or screen capture to be pasted into each writing assignment. The results of the Flesch-Kincaid

readability test will make the EdD students aware of their own writing weaknesses; one

piece of data is the percentage of passive sentences in the document. Scholarly writing

uses the active voice (American Psychological Association, 2010) . The use of the

Flesch-Kincaid readability test would make the EdD student aware of the grade level

required to read and understand the document. If the EdD students' writings were

assessed at the ninth grade level in an early Capstone course, it would be something to

focus on improving. The EdD student could concentrate on improving their vocabulary

and writing sentences that are more complex.

Sibley University's writing center should also provide support through a graduate

writing consultant with skills to translate research into scholarly writing. Scholarly

writing experience and knowledge of APA should be one qualification of the graduate

writing consultant. This writing consultant should meet with EdD faculty regularly to

discuss typical weaknesses and address any concerns about the differences between

dissertation writing and course assignments.

According to the National Writing Project and Nagin (2006), a connection exists

between ability to write and ability to teach and lead schools. Sibley University

contributes to the pool of available candidates who aspire to lead schools or are currently

in leadership positions. The study revealed that participants' writings did not improve

quantitatively throughout the dissertation process. The purpose of the exploratory

research was to gain a deeper understanding and possibly uncover information faculty

could use to improve the doctoral students' writings.

Results of this study did not show a statistical gain in writing proficiencies using

the Flesh-Kincaid measurement. No change in the results of the analysis of grade level,

percentage of passive sentences, characters per word, words per sentence, or sentences

per paragraph of participants' documents from entry point to completion were shown.

See Table 26 for students' grade level assessment of the drafts of dissertations from the

four points in the program.

Table 26

Flesch-Kincaid grade level - category comparison

	Cap I	Cap II	Approved Draft	Published Dissertation
Shoniece	19.4	19.9	19.9	18.4
Riley	14.7	16.1	15.7	15.8
Trinity	13.8	15.5	14.6	14.8
Maureen	12.6	15.8	15.1	14.3
Bentley	15.2	15	14.6	14.3
Essence	13.3	14	13.9	13.9
Zoey	15.1	14.5	14.4	13.8
Kalib	13.5	13	13.7	13.7
Timara	14.7	13.8	14.1	13.7
Amelia	15.3	15.7	13.1	13.7
Sofia	13.3	13.4	13.2	13.1
Rocellia	13.4	13.7	13.5	13
Katrina	12.6	12.7	12.9	12.2
Charla	11.9	11.4	12	11.8
Shaundrika	13	11.2	10.6	11.3
Edward	13.2	8.1	12.2	9.9

The researcher used Flesh-Kincaid measurement to assess a variety of grammar rules and

writing style in each document. Table 27 includes a list of categories assessed by Flesh-

Kincaid, but it is not all-inclusive.

Table 27

Flesch-Kincaid assessment categories

Beginning of sentence	Punctuation	Fragment
Punctuation with quotations	Comma use	Verb confusion
Passive voice	End of sentence preposition	Subject-Verb agreement
Use of contractions	Reflective pronoun use	Number agreement
Non-standard word	Connecting words	Capitalization
Non-standard question	Numbers	Cliché
Wordiness	Colloquialism	"That" or "Which"
Sentence structure		

According to the American Psychological Association (2010, p. 77), "use the active rather than the passive voice . . . The passive voice is acceptable in expository writing when you want to focus on the object or recipient of the action rather than on the actor." The final published draft average percentage of passive sentences was 11.25, while the first draft was 15%. Active voice is the preferred style in academic writing because it makes the verb meaning stronger (American Psychological Association, 2010).

Implications of the Findings

In Chapter 2, the Sibley University researcher referenced that graduates are expected to have already mastered the skill of writing clearly and fluently; therefore, teaching writing in graduate level programs is unique rather than the norm (Abbate-Vaughn, 2007; Alter & Adkins, 2006; Cheng & Steffensen, 1996). Data from this study relayed no statistical changes in participants' writings; this university did not require a scholarly writing course at the time of this study. Though professors are frustrated with the level of academic writing students submit, professors may never have experienced a

course or professional development on how to teach scholarly writing (Rose &

McClafferty, 2001). The data analysis reflected the mean of grade level of the EdD

doctoral dissertation as 13.75, which is interpreted as a reading level for the second year

undergraduate.

In this study, one third of self-assessed strong writers submitted dissertations that

fell above the average grade level of the study. Two thirds of the participants' perception

did not align with the analysis of their dissertation using the Flesh Kincaid grade level as

the measurement. In the opinion of the participants, nine of the participants identified

themselves as strong writers, seven as average writers, and one as a weak writer, as

displayed in Table 22. In this study, the overall average of the scholarly writing of

dissertations appears to be at a low readability grade level for a doctoral level document.

The grade level number can mean the number of years of education it takes to understand

the writing. The implications of the study is if the university wants EdD students to write

like scholars, as well as improve throughout the dissertation process, a plan to help

students' writings improve has to be implemented. Scholarly writing might improve if

the EdD student was required to take a course that teaches scholarly writing style or

required to attend writing seminars throughout the doctoral program. Improvement in

scholarly writing might happen if all Sibley University professors integrated scholarly

writing into current curriculum. I believe the study warrants a discussion on what has to

happen to ensure that each EdD graduate's dissertation is a high quality scholarly

document.

Future Studies

Since the quantitative portion of this study required four drafts of the dissertation, participants were limited. Not all potential participants saved writing samples from the beginning of the program, which excluded potential participants from the study. Future study would be to approach current Capstone I students and request participation in a longitudinal study that would continue through Capstone II, Capstone III, and the final dissertation document. The mixed methodology method used in the current study would be applied to the future study. This longitudinal study would not be limited because participants recalled events from the past when being interviewed; interviews would be requested of participants periodically as they progress in their dissertation writing.

One possible future study would be to work with Sibley University's ABD students. It would be valuable to analyze their writings in order to understand if there is one particular part of the traditional five chapter document that has contributed to the students' frustration. The value of these findings would be to develop or improve instructions on the specific chapter for future EdD students, as well as offer specific support on the problem area. Another possible derailment is the lack of training or available help for technological issues or APA style.

Abbate-Vaughn's (2007) study stated

The outcomes of a study by the American Association of Colleges and Universities revealed that a dismal 11% of college seniors are able to write at the proficient level while holding the belief that college was contributing to their skills in writing and other areas. (p. 52)

The results of Sibley University's qualitative research validated Abbate-Vaughn's study at the doctoral level. Overwhelmingly, students believed that their writing skills were strong at the beginning of the doctoral program; yet throughout the dissertation writing process, the participants made comments about the growth that had taken place. Regardless of how the student self-assessed their writing, this study did not reflect any quantitative growth throughout the program. A limitation to the evaluation tool is that there is no analysis connected to the quality of writing.

Conclusion

Nettles and Millett (2006) said "we are aware of a range of approved [writing] options, from the substitution of three journal articles for a full-fledged dissertation to the requirement that a dissertation represent totally original – ground-breaking, in fact – work" (p. 44). Though not every doctoral program requires the dissertation as the final assignment prior to acquiring the degree, many doctoral programs do. "Writing is hard because it is a struggle of thought, feeling, and imagination to find expression clear enough for the task at hand" (National Writing Project & Carl Nagin, 2006, p. 9). Writing may not be explicitly taught, such as in graduate school or doctoral coursework, because professors assume students already have these skills. The literature review revealed little research about the writing proficiencies of students in graduate school or doctoral candidates. There is a growing concern of writing deficiencies at all levels of learning (Levine, 2005), and researchers should continue to seek a quantitative instrument that more accurately measures the growth and quality of complex writing like dissertations and theses.

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Appendix A

Interview Questions

1. Tell me a little about yourself. (such as current job, age range, family responsibilities, etc.)
2. When did you begin the EdD program?
3. What were your previous experiences with writing before entering the EdD program?
4. In your opinion, how strong a writer were you when you began the program?
5. Tell me about your experience in EdD program.
6. What kind of writing was required for the courses in the program?
7. How many incompletes were assigned due to failure of turning in writing assignments?
8. What type of feedback did you receive on the writing assignments throughout your EdD program? (i.e. edits, check marks, letter grade, etc.)
9. Did you have a timeline anticipating what semester the dissertation would be completed?
    a. Was the timeline met?
    b. Why or why not was the timeline met?
10. What was or is the major challenge, or challenges, in your dissertation writing? Why was or is this a challenge?
11. How did your chair/committee support you when writing your dissertation?
12. What do you wish your chair/committee would have done differently when writing your dissertation?
13. Tell me about your experiences in the Capstone classes. (if possible get semester and year of each one)
14. Was your dissertation on something you cared a great deal about?
15. Has your developing ability to write well been connected to changes in being able to think more clearly?
16. What university services did you access during the writing of the dissertation (peer, chair, writing center, other)? Were there services you were aware of but did not access?
17. Outside of your committee, did you use editors or others to assist you with your writing? (explain)
18. Tell me about your writing process for the dissertation. (prompts could be Where did you do most of your writing? When? Did you have a laptop? Etc.)
19. Looking back, what did you learn from your dissertation writing experience?

Vitae

Yvonne D. Gibbs earned her Bachelor of Arts in Elementary Education and Library Science degree from Southeast Missouri State University. She earned her Masters of Arts in Education from Lindenwood University and her anticipated graduation date from Lindenwood University's Doctoral Program in Educational Leadership with an emphasis in Andragogy is May 2013.

Following elementary classroom experience, Yvonne served as library media specialist in the elementary, middle school, and high school settings. She has held leadership *positions in the Missouri Association of School Librarians, as well as the local St. Louis* Suburban Library Association, and presented at state and Midwest conferences. Ms. Gibbs currently serves as the lead advisor and assistant professor for Lindenwood University's Library Media Specialist Program.