

1. Preparing for Doctoral Studies

Getting an Overview of Doctoral Studies

Doctoral study is the highest level of formal education. The process is lengthy and culminates with the completion of an original research project that should add to the knowledge base of an academic discipline. Since the dissertation is a demonstration of scholarly competence, the student is charged with the successful development and execution of the dissertation, and has the primary responsibility to successfully meet all requirements, obtain all necessary signatures, and turn in all required forms. **A book describing the events, process, and responsibilities of those involved in the dissertation process that has been helpful to many students is *Destination Dissertation: A Guide to a Done Dissertation* by Soyna K Foss and William Waters (2007) Rowman and Littlefield, Publishers.**

Starting Dissertation Work

When you officially start working on your dissertation will be determined by the program in which you are enrolled. In some programs faculty advocate starting as soon as you begin taking classes; in other programs, students are advised to wait until after they have completed their research methods courses or after they achieve candidacy by successfully completing their comprehensive examinations. Regardless when one officially begins to work on one's dissertation, acquiring the skills to complete a dissertation must begin as soon as you start classes.

Reading Professional Literature

When you chose to seek a higher degree, it was likely in the context of some issue, interest, or problem you encountered in your studies, at work, at home, or in your community. That interest may guide you throughout your program; it may be modified as you take classes or it may be replaced by some new interest. A key element in that process of redefining your interests is your ability to understand the nature and content of research articles in your field. A good place to begin to encounter your professional research literature is to find out if the interest that brought you to your program is the subject of a body of literature in your prospective field. All dissertations must be based in a body of literature relevant to the question you seek to examine with your dissertation. Therefore, you must learn to read the dense and formulaic format of scholarly research.

This [link](#) will take you to a useful discussion about reading an empirical journal article. The article is appropriate for anyone reading empirical literature and is written in an engaging style. Understanding the nature and purpose of all parts of an empirical article is basic to developing a literature review that will be the foundation of your dissertation. When you have completed reading the paper, find a journal article that interests you and try your hand at abstracting the key information in each section of the article.

Abstracting Empirical Articles

Abstracting is a method by which you can capture the essential details of an article. When you find an article that is central to your interests and may be part of your dissertation literature review, you should abstract it. By abstracting you will come to more fully understand the details and meaning of the study.

On Abstracting by Paul Zelhart:

Abstracting articles is something of a lost art. Modern technology “encourages” students to highlight what they see as the key portions of a photocopied or digitally available copy of an article. However, coloring text is not a demonstration of understanding content. Too often the student assumes that the highlighted material is understood and committed to memory. Both assumptions are questionable. Committing one’s understandings of the key portions of an article to text, in the context of one’s personal construct system, increases the likelihood that the meaning is understood and that it will be remembered. When you defend your dissertation, your committee will expect you to understand much more about a cited study than just the author’s conclusions. You must be able to discuss all aspects of every important article, especially the study’s purpose, methodologies and data analytic techniques.

The goal of abstracting an empirical article is to capture the essential details that are relevant to your literature search in an economical fashion. Scientific writing is formulaic and compressed. The style of written expression for all COEHS dissertations is that of the American Psychology Association (APA Style Manual). The student is responsible for learning APA and using the current version of the manual.

Knowing the purpose of each section of a research article and sorting out the essential elements within each section requires knowledge and practice. To be most useful, abstracts should be brief. Two to four pages (700 to 1000 words) are usually sufficient.

For the title of an abstract, use full APA citation. Included would be the author(s) last name first, date, title, journal name, volume number, and page number(s). Please note for journal articles, normally only the first letter of the title is capitalized. Both the journal name and volume are italicized. By using the citation as the title you have all the information you need for your reference section and to retrieve the article after you lose your photocopy.

Most journal articles have brief abstracts at the beginning of the article. Such abstracts are useful to get a basic sense of the purpose, methods, and findings of the article. However, the abstracts of published articles do not include sufficient detail to understand and evaluate the worth of an article in terms of developing your dissertation literature review.

From the introduction section of the full article a sentence or two should be used to sketch the conceptual framework of the research. The key studies upon which the article is based should be cited and the purpose(s) of the research should be described (usually half a page is sufficient).

Since research design is about control and the appropriateness of the conclusions that control permits, detailed description of the subjects/participants, materials, and procedures should be included (up to one page). Pay particular attention to the research design and methods of data analysis. These should determine the interpretation of findings; describe them in detail.

From the results section, only the key findings should be presented. Note which hypotheses were supported and which were not supported. The methods and results sections are the richest areas for the generation of new research studies. Remember that the introduction section of an article is the author’s interpretation of the literature, and the discussion section is the author’s interpretation of the results of the study. When you begin to create your literature review, it will likely focus upon discussion of method and results rather than an author’s interpretations of their results. Knowledge is advanced through

critical examination of methods and results as a way of resolving disparate interpretations.

The writing style of an abstract should be very compressed. Use the criterion that words should be included only if their omission would destroy understanding. Extra adjectives and articles should be excluded.

Example of an Abstracted Article by Geronimo Perez:

Collins, J., & Pascarella, E. T. (2003). Learning on Campus and Learning at a Distance: A Randomized Instructional Experiment. *Research in Higher Education, 44*(3), 315-326. Retrieved from http://people.uncw.edu/caropresoe/EDN523/Collins_Pascarella_TED.pdf

Background:

This study examined the effects of knowledge of firefighter recertification when course content was presented in face-to-face or telepresence formats. Research in education typically uses a quasi-experimental approach. This research takes a true experiment approach by randomly assigning students to a face to face (FTF) class or a class taught at a distance. In addition, the confounding variable of self-selection found in many educational studies is addressed by including a distance only class.

Keywords:

Research in education, true experiment, random assignment, face to face classes, self-selection, teaching environment, educational studies, distance classes, experienced instructors, pretests, instructional format, technical content

Objectives:

Previous studies on the difference between face to face classes and distance classes showed inconsistent results. This study was designed to determine which teaching environment produces better learning and data retention. Self-selection was recognized as a confounding variable and was addressed by including self-selected distance class in the study. The self-selected students all attended class at a distance.

Methods/ Setting/Work Done:

Students enrolling in FTF classes were randomly assigned to classes that met on campus (N = 19) once a week from 6-9 PM on Thursday nights taught by experienced instructors or to a class (N = 18) that met on campus once a week from 6-9 PM on Wednesday, but was taught on a video presentation by the same instructors. Students from around the state who enrolled in the distance only class (N = 9) were not randomly assigned and received the same course instructions from the same course instructors as the other two classes via video presentation.

The dependent variable was the results of pretests and final exam administered to all students at the end of the course. The independent variable was the instructional format of the course material. Four other variables included as statistical controls were: (a) postsecondary credit hours completed, (b) previous fire science credits earned, (c) licensed emergency medical technician (EMT), (d) certified firefighter I.

Results:

The randomly assigned distance course and FTF instructional groups were similar on all variables including pretest and posttest. However, the self-selected distance group was between one or two

standard deviations higher on the pretest than the randomly assigned groups. It also tended to average more postsecondary credits and previous fire science credits earned, and to have a higher percentage of licensed emergency medical technicians and certified firefighters. In summary, self-selection led to a substantially different sample of individuals taking the distance course than did random assignment.

Randomly Assigned Distance Group ($N = 14$) Pretest $M = 24.50$, $SD = 8.17$. Posttest $M = 38.36$, $SD = 5.72$
Randomly Assigned Face-to-Face Group ($N = 15$) Pretest $M = 24.60$, $SD = 4.81$. Posttest $M = 38.47$, $SD = 4.61$
Self-Selected Distance Group ($N = 9$) Pretest $M = 33.00$, $SD = 4.18$, Posttest $M = 48.22$, $SD = 6.63$

Conclusion:

The research shows FTF and distance instructional formats will yield similar results to randomly selected students. The biggest difference in results comes from the students who self-selected to take the class opposed to students who were randomly assigned. The difference between self-selected students' results and randomly selected students' results is the students' motivation for taking the class and not the instructional format. In other words, class format did not affect grade outcomes as much as the students' motivations to take the class.

Below is the same abstract with brain storming added. The comments in the text are designed to promote understanding of the language, concepts, and issues of research. Additional suggestions for further research suggested by this study are provided below.

Collins, J., & Pascarella, E. T. (2003). Learning on Campus and Learning at a Distance: A Randomized Instructional Experiment. *Research in Higher Education*, 44(3), 315-326. Retrieved from http://people.uncw.edu/caropresoe/EDN523/Collins_Pascarella_TED.pdf

Background:

This study examined the effects of knowledge of firefighter recertification when course content was presented in face-to-face or telepresence formats. The confounding variable of self-selection, sometimes referred to as the volunteer effect, was also addressed in the study. Research in education typically uses a quasi-experimental approach.

Research Issues:

1. *In what ways do quasi-experimental designs and true experimental designs differ?*
2. *Why is the quasi-experimental approach so prevalent in educational research?*
3. *What are the limitations in interpretation of results that may occur from the use of quasi-experimental designs? Here is a link defining quasi and true experiments: <http://www.researchconnections.org/childcare/datamethods/experimentsquasi.jsp>*
4. *How does random assignment help insure groups are equivalent? Here is a link to information on random assignment: http://ori.hhs.gov/education/products/sdsu/rand_assign.htm.*

This research takes a true experiment approach by randomly assigning students to a face to face (FTF) class or a class taught at a distance. In addition, the confounding variable of self-selection found in many educational studies is addressed by including a distance only class.

5. *What is a confounding variable? Here is a link for a definition of confounding variable: <https://www.iwh.on.ca/wrmb/confounding-variables>*

Keywords:

Searching by keywords used in the article can lead to articles that researched the same topic: Research in education, true experiment, random assignment, quasi-experimental, face to face classes (FTF), self-selection, teaching environment, educational studies, distance classes, experienced instructors, pretests, instructional format, and technical content

Objectives:

Previous studies on the difference between face to face classes and distance classes showed inconsistent results.

6. *Some past studies comparing the effectiveness of FTF to distance courses showed FTF courses were more effective in producing student learning, while other studies showed distance courses were more effective in producing student learning. What factors may have contributed to research producing inconsistent results?*

This study was designed to determine which teaching environment produces better learning and data retention. Self-selection was recognized as a confounding variable and was addressed by including self-selected distance class in the study. The self-selected students all attended class at a distance. The randomly assigned students attended the FTF and distance classes on the college campus.

Methods/ Setting/Work Done:

Students enrolling in FTF classes were randomly assigned to classes that met on campus (N = 19) once a week from 6-9 PM on Thursday nights taught by experienced instructors or to a class (N = 18) that met on campus once a week from 6-9 PM on Wednesday, but was taught on a video presentation by the same instructors. Students from around the state

7. *Self-selection of students from around the state created confounds of distance, location, demographics, experiences, etc. Why was this group a needed comparison group concerning delivery methods? Here is a link to the definition of self-selection, sometimes referred to as the volunteer effect: http://en.wikipedia.org/wiki/Self-selection_bias*

who enrolled in the distance only class (N = 9) were not randomly assigned and received the same course instructions from the same course instructors as the other two classes via video presentation.

8. *Would larger sample sizes produce different results?*
9. *What kind of results would be obtained by comparing other types of course content with the distant, self-selected and FTF variables? That is to say, does the course topic affect student grades in the three variable settings? Here is a link to information on the importance of sample size: <http://www.conceptstew.co.uk/PAGES/nsamplesize.html>. The dependent variable was the results of pretests and final exam administered to all students at the end of the course.*
10. *What other dependent variable could be measured? Here is a link to the definition of a dependent variable: <http://psych.answers.com/research-methods/the-dependent-variable-and-its-role-in-psychology>. The independent variable was the instructional format of the course material. Here is a link to the definition of independent variable: <http://www.alleydog.com/glossary/definition.php?term=Independent%20Variable>.*

Four other variables included as statistical controls were: (a) postsecondary credit hours completed, (b) previous fire science credits earned, (c) licensed emergency medical technician (EMT), (d) certified firefighter I.

Results:

The randomly assigned distance course and FTF instructional groups were similar on all variables including pretest and posttest scores, but the self-selected group scored higher.

11. *Why does self-selection produce more able, more experienced, and better educated participants?*
12. *Does NOT getting a choice produce the equal results for the FTF group?*

However, the self-selected distance group was between one or two standard deviations higher on the pretest than the randomly assigned groups. It also tended to average more postsecondary credits and previous fire science credits earned, and to have a higher percentage of licensed emergency medical technicians and certified firefighters. In summary, self-selection led to a substantially different sample of individuals taking the distance course than did random assignment.

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Conclusion:

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Further doable research stemming from this study:

The study could be replicated using different subjects or content:

1. More subjects (minimum 30 per group)
2. Subjects from different age groups
3. Students studying different academic subjects rather than fire safety
4. Subjects from four year colleges rather than community colleges
5. Subjects of both genders rather than just males
6. Subjects from different ethnic groups

The study could be replicated using different or additional modes of content delivery

7. Content could be delivered FTF, via television or online

The study could be replicated using different dependent measures

8. The satisfaction of students finishing the course rather than learning might be measured
9. Student drop-out rates for different modes of delivery could be compared

The study could be go beyond replication

- 10 Different combinations of variables might be used. For example, different modes of delivery could be used to present different content to groups differing on age, gender, ethnicity, and or SES.

Quality of Journals and Articles

Determining the quality of academic articles has been made more difficult by the advent of web-based open access journals and “fake and predatory” journals. The latter are designed to make money for their owners. A brief discussion of methods of identifying quality information can be found at:

<http://libguides.bc.edu/content.php?pid=1192&sid=3053190> .

Open access journals are under examination by Dr. Jeffery Beall, a librarian at the University of Colorado at Denver. A listing of “predatory” journals and poor quality open access journals and the criteria used to identify them can be found at: <http://scholarlyoa.com/abouthttp://scholarlyoa.com/about/>

Plagiarism

Plagiarism is the theft of the intellectual products of others, commonly copying, or by not providing appropriate citation. Plagiarism is a serious ethical and legal issue. Web-based, easy access to academic materials has exacerbated the problem. There are many sources concerned with recognizing and avoiding plagiarism.

The following source gives information on using sources, what plagiarism looks like, avoiding plagiarism, etc. and is from Harvard University: <http://usingsources.fas.harvard.edu/icb/icb.do>

You may also view the most common types of plagiarism as compiled by Turnitin:

http://turnitin.com/assets/en_us/media/plagiarism_spectrum.php

You may take a plagiarism quiz to test your knowledge. From Indiana University Bloomington:

<https://iuplagiarismtest.appspot.com/>

Plagiarism Quiz from Turnitin: http://turnitin.com/assets/en_us/media/plagiarism-quiz/

iThenticate

iThenticate is a program similar to Turnitin that is geared toward thesis, dissertation, and manuscript writers; however, unlike Turnitin, iThenticate does not retain submissions and the comparison documents are scholarly, published sources rather than classroom papers.