



Department of Psychology
Master of Science in Psychology
Behavior Analysis Major

Capstone Project Handbook

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Capstone Research Project Handbook

Attestation

My signature below serves as attestation that I have read the BAMS Capstone Research Project Handbook and have had the opportunity to ask questions about any information it contains.

I understand that I should speak with my Major Professor about any questions that I may have with respect to information contained in this document at any time throughout my research project.

I understand that the capstone research project is an essential component of the BAMS curriculum and as such must be satisfactorily completed in order for me to graduate from the program. I further understand that I am responsible for meeting the capstone research project requirements specified in this handbook and elsewhere and that failure to do so may result in disciplinary action, including dismissal from the BAMS program, and/or failure to graduate from the program.

Student Name

Signature

Date

Capstone Research Project Handbook

Introduction

Welcome to your capstone research project experience! This handbook was created to help guide you through a year-long project. You should refer to it often throughout the development and execution of your project. You will also have a team of expert behavior analysts to support you through each phase of the process. Each member of your team is a valuable resource for the successful completion of your capstone research project. It is up to you to make the most of the resources and support you receive, beginning with this handbook. Please read it carefully and contact your supervised research professor if you have any questions.

Capstone Research Project Overview

The completion of a capstone research project that is equivalent to a master's thesis is an essential component of the BAMS curriculum and a requirement for graduating from the program. The project will consist of original behavior analytic research that employs single-case research design and methodology and will culminate in an APA style research paper and final presentation. The project is designed to meet the accreditation standards of the Association for Behavior Analysis International for master's degree programs. Through the completion of the project, you will:

Develop competence in defining a research problem, designing a method to address the problem, and conducting and reporting an investigation that carries out the method to conclusion.

(ABAI Accreditation Board, Accreditation Handbook, 1/2024, p. 29)

The development and implementation of the project will take place over the course of three consecutive semesters, beginning in the second semester of the BAMS program. The project will be completed at your assigned practicum site. The time devoted to the project at your practicum site may count toward supervised fieldwork or concentrated supervised fieldwork hours, so long as the standards of the Behavior Analyst Certification Board (BACB) are met.

Capstone research projects will include, but may not be limited to, the activities listed below.

- Topic selection
- Literature search and review
- Conceptualizing and refining research ideas
- Selection of the research design
- Selection/development of independent variable and data collection procedures
- Selection/design of the consent form and training materials
- Obtaining approval of the project from the BAMS program and practicum site
- Obtaining approval from the FIU Internal Review Board (IRB)
- Selection/construction of data collection, assessment, and survey instruments
- Participant recruitment and obtaining informed consent
- Implementing procedures
- Collecting data, including inter-observer agreement and treatment integrity
- Processing, graphing data, analyzing, and interpreting data
- Drafting and editing of manuscripts
- Final project presentation

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Supervised Research Course

Capstone research projects are completed as part of EAB 5917, Supervised Research in Behavior Analysis, beginning in the second semester of the of the program. Key components of the project will be graded course assignments. Students will be enrolled in the course with one of two supervised research instructors for their cohort. Both supervised research instructors will serve on the students Capstone Project Committee, as described below.

Roles & Responsibilities

The successful completion of your capstone project will require the participation of multiple individuals, each of which will fill a particular role. The roles and the unique responsibilities of each are described below.

Principal Researcher

You will be the Principal Researcher (PR) of your project. Your responsibilities as the PR are aligned with the FIU guidelines for principal investigators. As the PR, you are expected to do the following with guidance and support from your BAMS research supervisor and others:

- Submit complete and detailed research plans.
- Ensure that no study participant is enlisted without prior informed consent.
- Take all necessary safeguards to minimize risks and to protect the interests of vulnerable populations.
- Maintain the confidentiality of participants' identity and data.
- Promptly report, in writing and verbally to your BAMS research supervisor any injuries or other unanticipated problems.
- Assure that you and others who assist with implementing research procedures have received adequate training to do so.
- Employ high ethical standards by adhering to the Ethics Code for Behavior Analysts, Section 6: Responsibility in Research.
- Read, sign, and comply with the Affirmation of Compliance on the applicable IRB Application Form.
- Adhere to the FIU IRB Guidelines for Investigators: [irbInvestigatorManual.pdf \(fiu.edu\)](https://www.fiu.edu/irb/InvestigatorManual.pdf)

Capstone Project Committee

Your project must be approved by a Capstone Project Committee (CPC) during the project proposal stage and the final product stage. The CPC will consist of four members. Each member of your CPC will review the project. Their approval is required before you engage in research activities, including obtaining informed consent from study participants.

Major Professor

Your supervised research instructor will be your Major Professor and will serve as the chair of your CPC. They will be the primary source of guidance and feedback throughout the course of your project. Your Major Professor will make a substantial contribution to your project by advising you on and approving each element including topic selection, development of the research question(s), the experimental design, procedural and data collection methods. They will provide feedback on written products and will grade all related assignments in your supervised research class. You should consult with your major professor if you encounter any difficulties while completing your capstone project.

Project Reader

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The second supervised research instructor for your cohort will also serve on your committee as the Reader. They will review your research proposal, final written product and final capstone presentation. Your Reader may provide feedback directly to you or to your Major Professor on any matters related to your capstone project.

BAMS Practicum Supervisor

Your BAMS Practicum Supervisor will serve as a third CPC member. They will provide support and training that is relevant to your capstone project and may provide guidance related to the implementation of your research procedures in the context of your practicum experience.

Responsible Supervisor

Your Responsible Supervisor, at your practicum site, will have primary responsibility for supervising your work. They will sign your Practicum Supervision Contract, sign off on your supervised fieldwork hours, and will serve as an ex officio member of your CPC. They must approve all practical elements of the project including participant selection, experimental design, intervention, and data collection procedures to ensure that your project is appropriate for the practicum setting. Your Responsible Supervisor will help you identify participants and project assistants.

Project Assistants

It will be necessary for you to recruit project assistants for the purpose of obtaining inter-observer agreement (IOA) and treatment fidelity data. The selection and participation of project assistants must also be approved in advance by your Responsible Supervisor. The participation of project assistants should be limited to only data collection activities. Therefore, project assistants are not expected to make a substantial contribution to the project.

Note: Recommendations made by any committee member or others at your practicum site must be approved by your Major Professor prior to implementation.

Project Approval

Approval of your capstone research project is a multi-step process that begins with approval from your major professor and culminates in approval from the FIU Internal Review Board (IRB). You will consult with your major professor and responsible supervisor to identify a research project based on behavior skills training. Once a project has been identified, you must submit the following documents.

BAMS Capstone Approval Form (CAF)

The CAF includes the names of your Capstone Project Committee members and describes your project including the research design, participants, setting, dependent variable, independent variable, data collection, and a description of how project assistants will contribute to the study and how they will be trained. The CAF must be approved by each of your CPC members prior to requesting IRB approval.

FIU Internal Review Board

After the CAF is approved, your project must be approved by the FIU Internal Review Board prior to starting any research activities, including obtaining informed consent and collecting any type of assessment or baseline data. Like the CAF, your IRB proposal will specify the details of your research project. Your major professor will provide guidance with the IRB approval process.

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Note: Once your CAF and IRB protocol are approved, changes cannot be made to the project without additional written approval. Most changes will require resubmitting both documents. Consult with your Major Professor If you believe a change is necessary. Please be aware that changes will delay the progress of your study.

Authorship Policy

The Behavior Analysis Master of Science program follows the authorship guidelines of the American Psychological Association Ethical Principles of Psychologists and Code of Conduct (2017), which includes the following:

8.12 Publication Credit

(a) Psychologists take responsibility and credit, including authorship credit, only for work they have actually performed or to which they have substantially contributed. (See also Standard 8.12b, Publication Credit.)

(b) Principal authorship and other publication credits accurately reflect the relative scientific or professional contributions of the individuals involved, regardless of their relative status. Mere possession of an institutional position, such as department chair, does not justify authorship credit. Minor contributions to the research or to the writing for publications are acknowledged appropriately, such as in footnotes or in an introductory statement.

Substantial Contribution & Affiliation

In accordance with the APA standards above, an individual who makes a substantial contribution to the project will be named as an author on any subsequent presentation and/or publication that results directly from the research project, provided the individual consents to the authorship. The student must obtain the individual's written consent to be identified as an author. The student and the primary investigator will be responsible for determining if contributions made by others are substantial. Any presentation or publication of the research will state each author's affiliation at the time the research was conducted. If an author's affiliation has since changed, the new affiliation may be acknowledged in a note.

Research Ethics

Students conducting research must be well-versed in the ethics of conducting research. You will be required to complete the CITI Social/Behavioral Human Subjects Research Course and be familiar with the BACB Ethics Code for Behavior Analysts; in particular, section 6 Responsibility in Research. A links for the CITI training and the Code will be provided in your supervised research course. Additionally, you are expected to adhere to the FIU Student Conduct and Honor Code at all times.

Capstone Research Project

Your project will consist of three major phases. In the Proposal phase you will identify a research topic, develop a research question, develop the methodology for your study. In this phase you will write the first draft of the literature review and methods sections of your research paper. This phase will culminate in obtaining approval of a written research proposal.

Once your proposal has been approved, you may begin the research phase. This phase will consist of participant recruitment, implementation of the independent variable(s), and data collection. During this phase, you will continue to refine the literature review and methods sections of your paper.

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In the conclusion phase of your project, you will complete the collection and graphing of data, conduct the final analysis and interpretation of the data and write the final draft of your research paper, adding the results and discussion sections. You will also prepare the formal presentation of your study.

Expected Timeline

The table below shows the three capstone research project phases. The phases align roughly with each semester of the project. The listed of related tasks and assignments represents major steps toward the completion of the project. The list is not comprehensive.

Phase	Major Tasks/Assignments
Proposal	Complete CITI training: http://research.fiu.edu/irb/training-requirements/
	Complete APA style training: https://apastyle.apa.org/instructional-aids/tutorials-webinars
	Select topic, state the study purpose and research question
	Literature search & review
	First draft of introduction
	Methods section: research design, procedures, data collection, etc.
	Create informed consent form
	Present study proposal
	Submit the Capstone Approval Form (obtain project approval from the program)
	Obtain IRB approval
Research	Recruit participants & obtain informed consent
	Begin data collection on DV, IOA and treatment fidelity
	Expand introduction section
	Revise introduction and methods sections
	Graph data
	Present preliminary data
Conclusion	Conclude data collection & finalize graphs
	Write results and discussion sections
	Submit final paper
	Final presentation

Capstone Research Project: Proposal Phase

Identifying a Project

Your research project will be on the topic of behavior skills training (BST). You will select a research question, target behavior, participant population, and may design a study to explore variations of the standard BST procedures with guidance from your major professor.

Project Types

- A) Innovation – Involves a modification of an existing procedure in a way that may improve effectiveness (e.g., achieves greater behavior change), convenience (e.g., requires fewer

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resources to implement), or efficiency (e.g., achieves faster behavior change), when evaluated against published data.

- B) Expansion – Application of an existing procedure to a new target behavior, setting or other environmental conditions.
- C) Replication – Repeating a previous study. This is an important way to demonstrate if previous findings are repeatable. There are several types of replication studies.

Direct Replication - Repeating the study using the same methods and procedures as the original.

Conceptual Replication - Testing the same hypothesis but using different methods or procedures.

Approximate Replication - Making slight modifications to the original study's methods while maintaining the core elements.

Types of Research Questions

Demonstration – Evaluates the effectiveness of the systematic application of one independent variable on the dependent variable(s).

Parametric – Evaluating the efficacy of varying degrees or intensity of a treatment (e.g., the effects of weekly versus daily graphic feedback on mask wearing behavior)

Combination – Contains elements of two or more above.

Project Proposal

Once your topic and research question have been approved, you will begin writing your capstone research project proposal paper. The proposal will consist of the following sections.

Introduction: The introduction provides the context for your research, including the significance and purpose of your study. In this section you will state the research question, in terms of what problem or need the research seeks to address, and your hypothesis.

Literature Review: In the literature review you will discuss the relevant studies and theoretical frameworks of your research. The goal is to cover the breath of empirical evidence on the topic and identify gaps and inconsistencies in the existing literature that your research aims to address.

Methodology: In this section, you will describe the research design of your study, the intended participants including selection criteria such as age, and behavioral characteristics, the data collection methods that will be used, the dependent variable(s), and a detailed explanation of the dependent variable(s) and how it will be implemented.

LITERATURE SEARCH

The writing of the introduction and literature review begins with a thorough search review of the relevant literature that has been published in peer-reviewed journals. This will require reading

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many research articles to determine which should be included in your paper. Your review should capture the full range of relevant literature including seminal studies of historical significance and more recent work leading up to the latest publications on the topic. Then number of articles that should be included in your literature review will depend on how much literature exists that is relevant to your topic.

PsycInfo

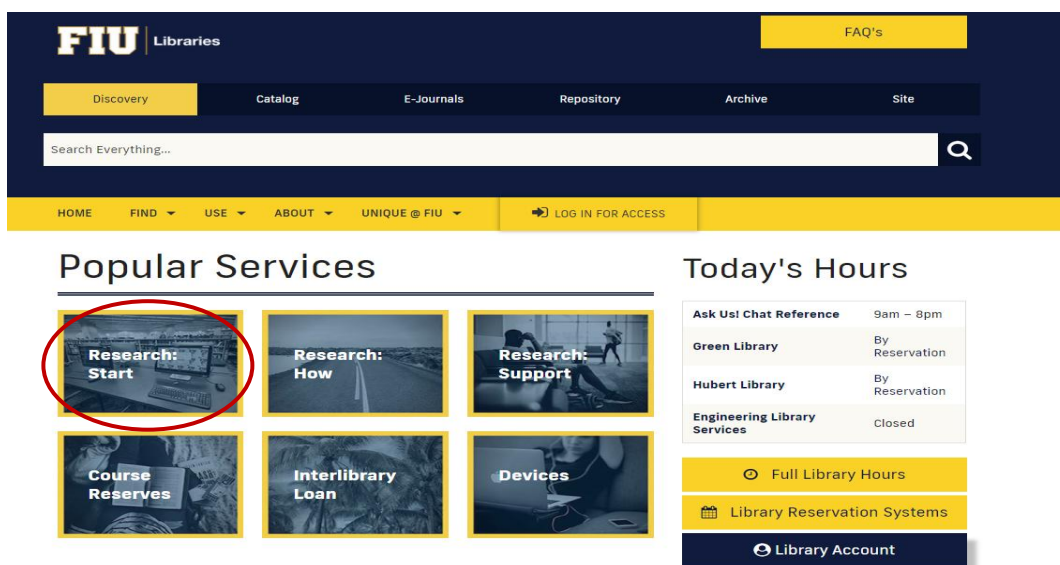
The university offers a rich set of resources through the library's online literature reserves. You should take full advantage of the resources provided in this medium, and you should not rely on other sources or search engines, as they are less complete and have more limited functionality. While there are multiple databases for publications in psychology, PsycInfo is the most robust database available for finding behavior analytic literature. The FIU library provides resources for conducting a PsycInfo search, including a brief instructional video.

[Home - PsycINFO Guide - FIU Libraries at Florida International University](#)

PsycInfo Search Instructions

Below are step-by-step instructions for searching PsycInfo.

1. Go to [ALL GUIDES - FIU Libraries at Florida International University](#)
2. Click Research: Start



3. Click A-Z Data bases

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FIU Libraries | LibGuides | A-Z List | Access From Home | Help | Search for... | Go!

FIU Libraries / LibGuides / Research: Start / Frequently Used Tools

Research: Start: Frequently Used Tools

frequently used tools | step-by-step guides | subject resources | research support

Background Information: Reference Sources

quick links

- Access From Home
- A-Z Databases**
- LibGuides
- Citation

Credo Reference

Online reference service made up of over 500 full-text books; includes in-depth Topic Pages, Content Mapping, and linking to other library resources.

Popular or Hot Topics Research

Opposing Viewpoints In Context

Database covering viewpoints on a variety of social topics. It includes articles, topic overviews, government and organizational statistics court cases, profiles, and more.

4. Click P then scroll to and click PsychINFO

FIU Libraries | FAQ's

Discovery | Catalog | E-Journals | Repository | Archive | Site

Search Everything...

HOME | FIND | USE | ABOUT | UNIQUE @ FIU | LOG IN FOR ACCESS

FIU Libraries / A-Z Databases

A-Z List

An alphabetical listing of the databases available through FIU Libraries

Browse & Filter

All Subjects | All Database Types | All Vendors / Provide

A B C D E F G H I J K L M N O **P** R S T U V W Y Z

#

1167 Databases found

A

AAA Digital Library

Through 2013; Full text of select journals published by the American Accounting Association: See Business Source Complete database for more recent issues.

Search

DATABASES | Search

New / Trial Databases

The following databases are newly acquired or being evaluated for a future subscription.

Chinese National Knowledge Infrastructure (CNKI)

Chinese National Knowledge Infrastructure (CNKI), initiated in 1999 by Tsinghua University and Tsinghua Tongfang Co., Ltd., is both the largest institutional repository in China and a near-monopoly provider of for-pay academic databases with a higher profit margin than Elsevier or Wiley, among other services. With promotion and support from the government, CNKI keeps developing its track towards open access. CNKI offers free access to millions of

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5. Login with your FIU Username and Password

The screenshot shows the FIU Libraries website. The top navigation bar includes links for Home, Find, Use, About, Unique @ FIU, and Log In for Access. A sidebar on the left contains an Important Message about electronic content and EZProxy Help links. The main content area is titled 'Off-Campus Access' and includes a 'Log In for Access' section. Below this, there is a 'Choose Your Log In Method' section with two options: 'FIU Email Account' and 'FIU Library Account'. The 'FIU Email Account' form includes fields for Username (with a placeholder '@fiu.edu') and Password, and a 'Log In' button.

On the main search page, enter search terms, **check Peer reviewed**, and apply other desired filters. Use the drop-down menus on the right to select where to search for the term. For example, in the document title, document abstract or journal title. You may also sort by various other fields on this page. Example:

The screenshot shows the FIU Libraries Advanced Search page. The search criteria are: 'social skills' AND 'autism' AND 'behavior analysis'. The search is limited to 'Peer reviewed' (highlighted with a red circle) and 'Impact statements'. The publication date is set to 'All dates'. On the right, there are dropdown menus for 'Document title -- TITLE', 'Anywhere', and 'Publication title -- PUBLICATION'. A 'Search' button and a 'Clear form' link are at the bottom right.

The search will return a list of citations that meet the search criteria you selected. Click the **Abstract/Details** button beneath each article you are interested in or click **Show Abstracts** in the upper right corner to show all abstracts. Review articles that seem appropriate for your literature review based on the title and abstract.

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SAVE YOUR SEARCH

You will likely want to save your search and come back to it later. Saving your search will allow you to pick up where you left off instead of starting over.

6. Click Save search/alert in the upper right corner of the search screen.

7. You may need to sign in on this screen or create an account. NOTE: These are not your FIU login credentials. You will create a password when you create the account.

Sign in to My Research

Sign In

Create an account

yours@example.com

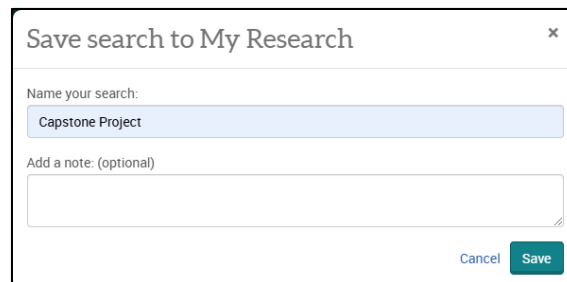
your password

Forgot your password?

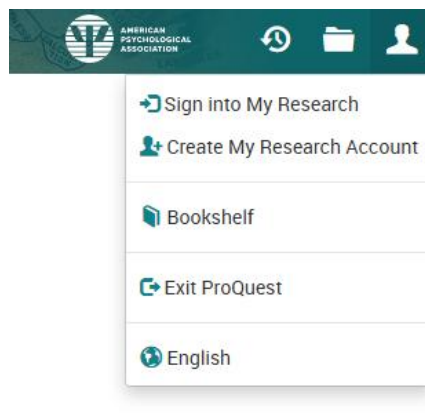
SIGN IN >

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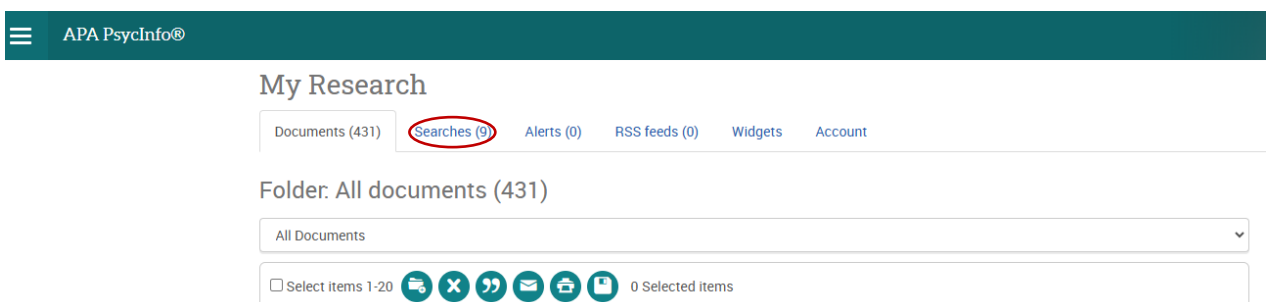
Name your search and click Save.



8. To retrieve your search, log back in to PsycInfo. Click the person icon in the upper right corner and click Sign into My Research.



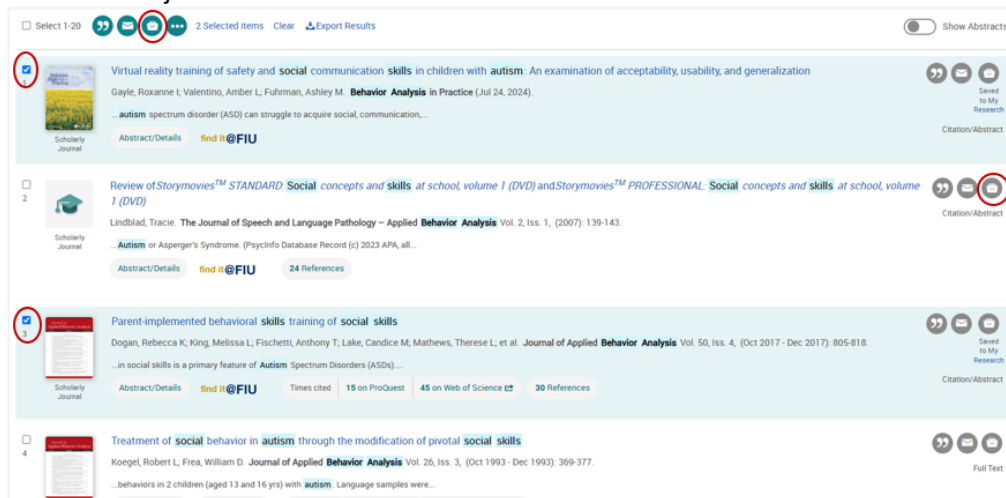
9. Click the searches tab then click on your desired search. This will take you right back to the last search page you were on.



SAVE YOUR ARTICLES

10. Click the check box above the article number to select the articles you wish to save. You can also save one article at a time by clicking the drawer icon the right of the article title. Click the file drawer icon in toolbar above the list of articles.

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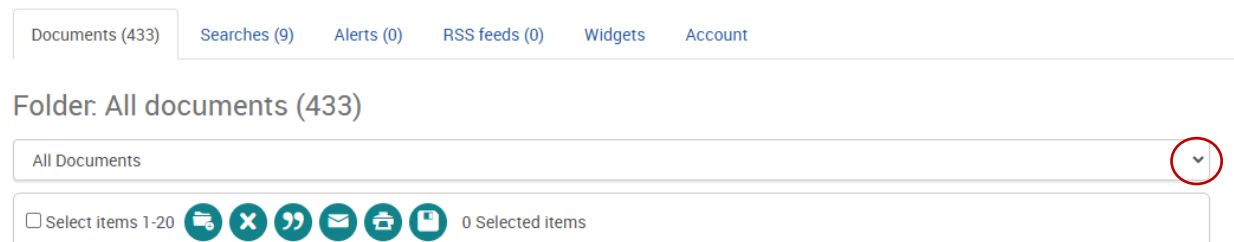


11. In the Save in drop down menu, select the capstone research folder name or “Create a new folder.”

RETRIEVE YOUR SAVED ARTICLES

12. Click the person icon in the upper right corner. If you were signed out, click Sign in to My Research' then click the person icon again. Click 'saved documents', then click the down arrow on the All Documents menu and select your capstone research folder name.

My Research



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List of Behavior Analytic Journals

Your literature review should consist primarily of behavior analytic journal articles. There may be some references from outside the field, but they should only serve to supplement behavior analytic journals. Below is a list of Journals that Publish Behavior Analytic Research. This list is not exhaustive. Additionally, some of the journals listed may publish work that is not behavior analytic in nature.

American Journal on Intellectual and Developmental Disabilities	Journal of Applied Behavior Analysis
Analysis of Verbal Behavior	Journal of Autism and Developmental Disorders
APBA Reporter	Journal of Behavioral Education
Autism	Journal of Developmental and Physical Disabilities
Autism Research	Journal of Early and Intensive Behavior Interventions
Behavior Analysis in Practice	Journal of Experimental Analysis of Behavior
Behavior Analyst / Perspectives on Behavior Science	Journal of Organizational Behavior Management
Behavior and Philosophy	Journal of the Experimental Analysis of Behavior
Behavior and Social Issues	Perspectives on Behavior Science
Behavior Modification	Research in Autism Spectrum Disorders
Behavioral Interventions	Research in Developmental Disabilities
Behavioral Processes	School Psychology Review
Education and the Treatment of Children	The Behavior Analyst (Perspectives on Behavior Science starting in 2018)
European Journal of Behavior Analysis	The Psychological Record
Health Psychology	Topics in Early Childhood Special Education

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Capstone Research Paper Components

1. Title Page

- ☐ Title of the Paper: A concise and descriptive title that clearly conveys the main topic or focus of the research.
- ☐ Author's Name: The name of the individual who conducted the research.
- ☐ Institutional Affiliation: The name of the university and department.
- ☐ Course Number and Name: Information about the course for which the paper was written.
- ☐ Instructor's Name: The name of the course instructor or supervisor.
- ☐ Date: The date the paper was completed or submitted.

2. Abstract

- ☐ Summary of the Research: A brief overview of the research in 250 words or less, including:
 - ☐ Purpose
 - ☐ Participants
 - ☐ Methods
 - ☐ Results
 - ☐ Conclusions

3. Introduction & Literature Review Section

- ☐ Statement of the Problem: The specific issue or question that the research aims to address.
- ☐ Overview of Relevant Research: Summary of existing research related to the topic.
- ☐ Key Concepts and Terms: Definitions of important terms and concepts used in the study.
- ☐ Summary of Major Findings: A synthesis of the findings from previous research.
- ☐ Gaps in the Literature: Areas where further research is needed due to a lack of research or inconsistent findings.
- ☐ Purpose of Your Study: The main goals or objectives of the research.
- ☐ Significance of the Study: The social significance or potential impact of the research on the field of applied behavior analysis.
- ☐ Research Question(s): Specific research question(s) being explored.
- ☐ Hypotheses: Prediction of expected outcomes.

4. Methods Section

- ☐ Participants: Details about the study participants, how they were selected, and their number.
 - ☐ Target population: The types of participants.
 - ☐ Selection Criteria: Inclusion and exclusion criteria used to identify participants.
 - ☐ Sample Size: The number of participants involved in the study.
 - ☐ Characteristics: Participant ages, gender, and other applicable characteristics.
- ☐ Materials and Instruments: Tools or instruments used to in the study (e.g., data collection tools, assessments, stimuli, surveys, etc.).
- ☐ Research Design: Type of single-subject research design that will be used to conduct the research.
- ☐ Data Collection Methods: Specific techniques used to gather data.

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- ☐ Procedures: The steps or processes followed during the research.
 - ☐ IOA training
 - ☐ Treatment fidelity training
 - ☐ Participant assessments
 - ☐ Baseline(s)
 - ☐ Treatment(s)
 - ☐ Social validity

5. Results Section

- ☐ Presentation of Data: How the data is organized and displayed (e.g., graphs, tables, or figures).
- ☐ Tables and Figures: Visual representations of the data to help clarify and summarize results.
- ☐ Descriptive Statistics: Statistical summaries that describe the basic features of the data (e.g., mean, median, range, etc.).

6. Discussion Section

- ☐ Conclusions: Summary of the major findings.
 - ☐ Interpretation of Results: Explanation of the meaning and implications of the research findings.
 - ☐ Significance of the findings: How the results affect the field and their practical applications.
 - ☐ Contribution to the literature: How the findings relate to or differ from previous studies.
- ☐ Limitations of the study: Limitations in the generalizability of the findings and weaknesses in the design or execution of the study that may have affected the results.
- ☐ Future Directions: Recommendations for further investigation based on the findings and limitations of the study.

7. References Section

- ☐ List of the articles cited in the paper: A complete list of all articles referenced in the paper, formatted according to APA guidelines.

8. Appendices (if applicable)

- ☐ Supplementary Material: Additional material that supports the main text but is too lengthy or detailed to include in the main sections.
- ☐ Questionnaires: Copies of any surveys or questionnaires used in the research.
- ☐ Raw Data: Original data collected during the study.

9. General Guidelines:

- ☐ APA Style, 7th edition must be used throughout.
- ☐ Cited articles must be from peer reviewed journals.

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- ☐ Only original source articles may be cited.

Literature Review Rubric Items

The items below will be assessed as part of your grade when submitting your literature review.

Review of extant literature must include:
Clear statement of the problem that the literature being reviewed addresses
Literature reviewed is relevant to topic of concern
Literature reviewed is primarily published work found in peer-reviewed journals
Literature is organized into useful sections that promote readability
Literature of historical interest is mentioned briefly, but not excessively
More recent literature is emphasized (more than one published paper can be condensed into a single paragraph and even a single sentence)
Empirical literature is emphasized (more than one study can be condensed into a single paragraph and even a single sentence)
Particularly relevant empirical literature is <i>highly</i> emphasized (single studies that are important are detailed for design, results, and discussion points)
Literature is summarized to draw attention to what has been discovered and what seems the next logical steps that a researcher would want to take to further build important scientific knowledge in this area
<i>Purpose:</i> a statement of the purpose of your investigation and the exact experimental question you are asking is stated.
<i>Hypothesis:</i> a statement of the hypothesis of your investigation is stated
The literature cited is primarily or exclusively behavior analytic in nature. Non-behavior analytic literature is used appropriately as background information.
APA Style:
Sources are appropriately and correctly cited in text
Title page
Running head
Page numbers
Page format including (1-inch margins, 11-point Arial font, double spaced, paragraph indents, etc.)
References
Writing:
Written using student's own words and paraphrasing. NO QUOTES USED
Grammar and punctuation
Turnitin match is less than 15%

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Methods

Once you have conducted a thorough search of the literature and have fully defined your research question and hypothesis it is time to develop the methods section of your paper. This section will describe the participants, setting and materials, dependent variables (i.e., target behavior), experimental design and procedures including data collection and how the independent variable (i.e., treatment) will be carried out. The actions of the experimenter, assistants, and research participants should be described to the extent that a reader will be able to replicate your study exactly as you executed it. In the proposal phase, the methods section may be written in the future tense. Once the study has been completed, the methods section will be written in past tense.

Selecting Procedures

The selected intervention should seek to extend the existing literature to a new behavior, participant group (e.g., age or diagnosis), environmental condition (e.g., individual vs. group instruction) or procedure.

Selected procedures should rely exclusively on the application of reinforcement and should be minimally intrusive.

Selecting Participants

Your practicum site supervisor should help you identify multiple individuals who could benefit from participating in your study. A minimum of **three** participants are required. Participants may be caregivers of the primary recipients of behavior analytic services or agency staff. Participants must be independent adults with the legal authority to consent to participation in a research study. Select participants who are likely to remain with the agency for the duration of your project (three semesters). Select participants who reliably keep appointments and follow treatment recommendations.

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Methods Section Rubric Items

The items below will be assessed as part of your grade when submitting your methods section.

Methods section must include:
Method section is broken into sections and subsections to promote readability
Participants are clearly identified
Setting is clearly specified
DVs are operationally and technologically defined
IVs are defined technologically
Procedure for implementing the IV is described technologically
Experimental Design is clearly articulated
Procedures for collecting and checking data are clearly described, including:
Rationale for type of data collected (frequency, rate, interval)
Data Accuracy (training of human data collectors or calibration of measuring instruments)
Data Reliability (Inter-Observer Agreement) procedures identified
Fidelity of implementation (Treatment or Procedural Integrity)
Functional Assessment procedures are identified (where appropriate)
Preference Assessment procedures are identified (where appropriate)
Social validity procedures are identified (where appropriate)
Style and APA Formatting:
Organization
Well-organized, sections flow well together
Logical narrative
Leads naturally to results section
Mechanics of Grammar
Punctuation, spelling, capitalization
Italics, bolds, underline
Abbreviations, numbers
Mechanics of Formatting
Line spacing, font, margins
Running head, headings, page numbers
Tables and figures/captions
Clarity
Writing is concise
Writing is humble and bias-free
Writing is scientific/behavior analytic
References
Citing references in text
Quoting and paraphrasing
Bibliography

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[Data Collection and Graphing](#)

Design

This study must abide by the logic of single-case research designs, including the collection of baseline data and continuing in baseline or treatment phases until stability has been reached. The study must utilize a multiple baseline design.

Treatment Integrity

The student, as the primary researcher (PR), should implement all research procedures. Treatment integrity data should be collected for at least 25% of all data in each phase of the study. Treatment integrity data may be collected in vivo, via remote observation (e.g., Facetime or Zoom), or from a video recording. The use of remote observation and/or video recording must be included in the consent form and agreed to by the participant. Recordings must be destroyed at the conclusion of the capstone project.

Data collection and IOA

Data should be collected as frequently as possible and must be quantitative. Data may be collected by the student, caregiver, or agency employee, as appropriate. All data collectors must be trained to criterion. Training should continue until IOA reaches at least 80%. IOA should be calculated for at least 25% of all data collected in each phase of the study. All training procedures must be included in the methods section of the capstone project paper and training materials must be appended.

Graphing

All results should be displayed graphically based on the design selected. Please utilize all resources provided in the supervised research course to learn how to graph data for the selected design. As with all other components of your paper, figures and tables must be displayed using APA 7 guidelines.

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[Graphing Rubric](#)

The items below will be assessed as part of your grade when submitting your graphs.

General
Properly titled (top or caption)
Easy to read and interpret
Vertical/Y axis/Ordinate
Shows value of DV
Origin at zero
Scaled with equal intervals
Full range of data captured
Properly labeled
Scale break used if needed
Horizontal/X axis/Abscissa
Shows time/sessions/opportunities
Data point above tick marks
Scaled with equal intervals
Properly labeled
Scale break used if needed
Phase(s)
Properly Labeled
Condition/phase change line
Data Paths
Clear symbol(s) for each data path
Clear line(s)
Multiple data paths clearly labeled
Data points properly connected
Data points NOT connected:
o Across conditions/phases
o Data are discontinuous

Results

You will add the results section to your paper once treatment data has been collected. The results section will include graphic display of the data, as well as figures and tables as needed. You will conduct a visual inspection of the data and report the level, trend and variability of the data with and across study phases. You will also report summary statistics, as appropriate, such as mean, median and modal response levels.

Discussion

The discussion section of your paper will be written after you have completed the analysis of your result. In the discussion you will summarize and interpret the research findings. You will explain the implications of your research, how they contribute to the body of knowledge on the research topic, practical applications, and if the finding support or differ from prior research.

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Limitations

The discussion section will also include the limitations of your study. Limitations refer to the extent to which study findings can be generalized, as well as weaknesses in the design and/or execution of the study that may affect the internal and external validity of the results. All studies have limitations. Reporting limitations is a critical component of the research process, because it helps future researcher improve up the work that has already been done. Do not shy away from reporting the limitations of your study.

Future Directions

Finally, the discussion section will include suggestion for future research. This can include recommendations for changes in the design and/or execution of the study to address limitations, extending the research to other populations, behaviors or settings that have not already been studied, and changes in the procedures to answer questions raised by the research findings.

References

The reference section will be a complete list of all articles cited in the text of your paper, following APA style formatting guidelines. It is important to also ensure that any article that appears in the reference section has been cited in text at least once.

WRITING YOUR PAPER

The final product of your capstone research project will be an APA style research paper consisting of multiple sections. A template of the paper is available below. You will write the paper over three semesters, in accordance with the timeline above. Planning and time management will be essential to submit a high-quality final product. The most important thing to remember as you write your paper is that you must follow applicable ethical standards. While you may receive assistance with the mechanics of writing, all ideas expressed in your paper must be your own or be properly attributed to others.

APA Style

Your paper must be written in APA style, 7th edition, using the format for student papers. You are encouraged to purchase the APA style manual, which is available in multiple formats. APA also, generously, publishes basic style guidelines on their website. You may refer to these guidelines (linked below) if you do not have the manual.

The Publication Manual of the American Psychological Association, 7th Ed. is available here: [Publication Manual of the American Psychological Association, Seventh Edition \(2020\) \(apa.org\)](https://www.apa.org/pubs/authors)
A sample student paper is available here. [student-paper.docx \(live.com\)](#)

Basic APA Style & Writing Guidelines

Basic APA Style and grammar guidelines are available here: [APA Style](#)
Refer to each of the following sections throughout the writing process, as applicable

[Paper Format](#)

[In-Text Citations](#)

[Mechanics of Style](#)

[Bias-Free Language](#)

[Tables and Figures](#)

[References](#)

[Grammar](#)

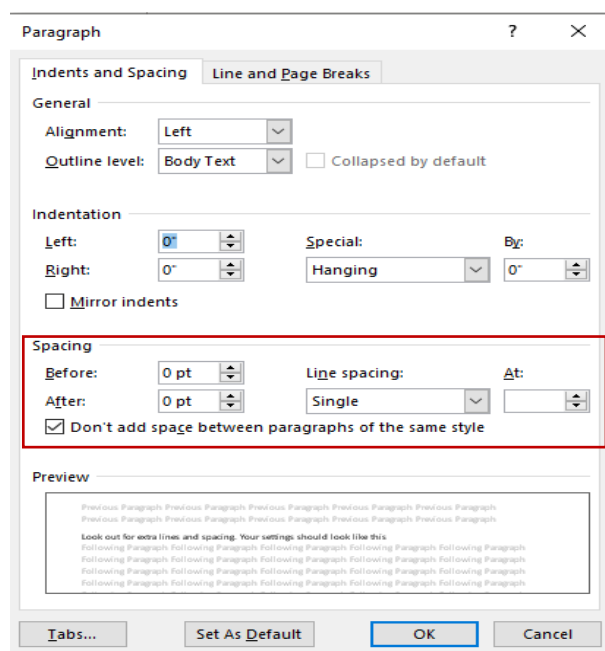
TIPS

BAMS APA Style Requirements and Tips

- **Use 11-point Arial font only.**
- Use all resources provided in the Supervised Research course, including the APA 7th ed Student Paper Setup Guide, linked here [Student Paper Setup Guide, APA Style 7th Edition](#)
- Use APA Style **7th Edition** only. Be careful not to follow information based on prior editions.

Look out for default page settings, which are usually different from APA style.

Make sure your ruler is visible at the top of the page, so that you can easily see if margins and paragraph indents are correct. Check Ruler in the View menu. Look out for extra lines and spacing. Your Spacing settings should look like this:



Writing Tips

- Be succinct. Convey information in a clear and complete fashion while using as few words as possible.
- Write using formal, professional, technical language. Do not write as you speak.
- Focus on observable behaviors. Avoid referencing private events such as anxiety, wanting, thinking, etc. Instead, describe public behaviors that suggest such private behaviors.
- Report only the facts. Avoid the use of adverbs such as, sadly, surprisingly, fortunately when reviewing the literature.
- When feedback is provided or a correction is made to your paper, apply it throughout your paper, even if it is not noted again.
- **PROOFREAD YOUR WORK MULTIPLE TIMES**

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Writing Resources

Clear and concise professional writing can be a difficult skill to master, particularly if one has not had much practice and feedback. Students are highly encouraged to take advantage of writing resources available through the BAMS program and university.

BAMS Writing Consultants

A BAMS writing consultant (WC) is available to assist you with key writing assignments related to your capstone project. The WC will provide feedback to improve your writing and use of APA style. Some assignments will require you to receive feedback from a WC before turning it in. This will allow you the opportunity to improve your writing prior to receiving a grade for the assignment. The WC will not grade assignments nor provide information to your instructor that will be used for grading. You may request assistance from a WC at any time. It may be essential for some students to improve their writing to successfully complete the capstone project. In these cases, the students will be referred to a WC by their major professor. If you receive a writing support referral, make an appointment with a WC as soon as possible. Appointments may be held in person or remotely, as agreed to by you and the WC. Contact information for the WCs is posted on the Home page of your supervised research course Canvas.

Center for Excellence in Writing

The FIU Center for Excellence in Writing (CEW) offers a variety of tools and services to help you develop your writing skills. You are encouraged to visit the web page (linked below) and to take advantage of this valuable resource. You may make an appointment with a CEW writing consultant when a BAMS WC is not available or in addition to meeting with a BAMS WC.

[Center for Excellence in Writing | College of Arts, Sciences & Education | Florida International University \(fiu.edu\) \(Links to an external site.\)](#)

Time Management

The Office of Student Affairs offers resources to assist students with planning and managing their time.

<https://studentaffairs.fiu.edu/health-and-fitness/student-health/healthy-living/resources/time-management/index.php> (Links to an external site.)

AVOID PLAGIARISMPlagiarism Defined

- ¹ The deliberate use and appropriation of another's work without any indication of the source and the representation of such work as the student's own.
- ² Assisting another student in the deliberate use and appropriation of another's work without any indication of the source and the representation of such work as the student's own.

Plagiarism and Generative Artificial Intelligence

Misrepresenting work produced by generative artificial intelligence (GenAI) products, such as ChatGPT and Copilot, as your own is plagiarism. It is no different than copying work from a human author. In the BAMS program, GenAI may only be used to complete an assignment when the written assignment instructions explicitly allow it.

Plagiarism is a form of academic misconduct, and it can lead to dismissal from the program. Academic Misconduct is defined as: "Any act or omission by a Student, which violates the

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concept of Academic Integrity and undermines the academic mission of the University in violation of the Code¹." Even if the plagiarism is unintentional, you may still be found responsible for committing Academic Misconduct. Therefore, you must actively prevent plagiarism and other forms of academic misconduct. As members of the BAMS program, you are expected to uphold the standards of academic integrity and student conduct outlined in the university [Student Affairs' Webpage](#).

Furthermore, plagiarism is also a violation of the Ethics Code for Behavior Analysts, which you are also expected to uphold as a BASM student.

6.08 Appropriate Credit (see 1.01, 1.11, 1.13)

Behavior analysts give appropriate credit (e.g., authorship, author-note acknowledgment) to research contributors in all dissemination activities. Authorship and other publication acknowledgments accurately reflect the relative scientific or professional contributions of the individuals involved, regardless of their professional status (e.g., professor, student). <https://www.bacb.com/wp-content/uploads/2022/01/Ethics-Code-for-Behavior-Analysts-240830-a.pdf>

Avoid plagiarism by understanding what it is and by learning how to effectively paraphrase. The following online resources are available to help you identify plagiarism, practice paraphrasing, and even test your own work to determine if it meets criteria to avoid being flagged for plagiarism.

Plagiarism Checkers:

1. [PapersOwl](#): A free plagiarism checker that provides a detailed report.
2. [Scribbr](#): Offers a free plagiarism checker similar to those used by universities.
3. [Grammarly](#): Detects plagiarism and checks for other writing issues.

How to Paraphrase:

1. [Paraphrasing - Purdue OWL® - Purdue University](#)
2. [How to Paraphrase to Avoid Plagiarism - Wordvice](#)

***** Remember that all ideas expressed in your paper must be your own or must be appropriately attributed to the author. AI tools may not be used to generate ideas or text. *****

Plagiarism Detection Software

Be aware that your professor may use plagiarism detection software (PDS) such as Turnitin, to help them identify improperly sourced materials. If you have concerns with the instructors' use of PDS, please communicate directly with your instructor or program administration.

¹ Florida International University - Digital Communications. (n.d.). FIU and Plagiarism. Retrieved December 07, 2020, from <https://case.fiu.edu/opportunities/internships-jobs/clinical-experiences/plagiarism-tutorial/fiu-and-plagiarism/index.html>

² Florida International University - Web Communications. (n.d.). Student Conduct and Honor Code. Retrieved December 07, 2020, from <https://studentaffairs.fiu.edu/get-support/student-conduct-and-academic-integrity/student-conduct-and-honor-code/index.php>

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Campus Resources

There are excellent resources on campus for students who need additional support in mastering the art of academic writing. Be proactive and take advantage of these resources prior to turning in your assignments to avoid potential mishaps. The [FIU library](#) provides a variety of online resources to help prevent plagiarism.

[The Center for Excellence in Writing](#) provides online resources for everything from how to use APA style, to writing your literature review and even using Refworks to help with building your references list. They also provide workshops and offer individual consultation for major writing projects, such as the capstone research project.

[The Center for Academic Success](#) provides tutoring and study tips and guides and has a video on paraphrasing and other useful skills for graduate students.

Scribbr

The [Scribbr YouTube Channel](#) offers a series of very helpful videos to assist you throughout the process of writing your research paper.

Summary of Project Guidelines

General

1. Your final written product is expected to be of sufficient quality for publication in a peer-reviewed journal.
2. Discuss all aspects of your project in advance and regularly with your practicum site supervisor.
3. Your research may begin only after receiving approval from: your research supervisor, site supervisor, capstone committee, and FIU IRB.
4. You will have approximately 20 weeks to complete your research.

Topic Selection

1. Identify topics of interest to you. Consider gaps in the literature and inconsistent research results.
2. Consult with your Responsible Supervisor and major professor.

Target Behavior Selection

1. Select a target behavior that is readily available for measurement.
2. Select a target behavior for which the relevant functional variables can be controlled.
3. Select a socially valid behavior.

Participant Selection

1. Your responsible supervisor should help you identify multiple individuals who could benefit from participating in your study. A minimum of three participants are required.
2. Participants may be caregivers of the primary recipient of behavior analysis services, or agency staff.
3. Participants must be 18 years or older and have the legal authority to provide informed consent to participate in a research study.
4. Select participants who are likely to remain with the agency for the duration of your project (three semesters).

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5. Select participants who reliably keep appointments and follow treatment recommendations.

Behavior Change Program

1. The contingent application, removal or change in a stimulus condition for the purpose of reducing a target behavior (i.e., punishment) is not allowed.
2. Aversive antecedent manipulations and negative reinforcement contingencies may not be used.
3. The intervention should seek to extend the existing literature to a new behavior, participant group (e.g., age or diagnosis), environmental condition (e.g., individual vs. group instruction) or procedure.

Experimental Design

1. A multiple baseline design must be used. Multiple probe designs are discouraged.
2. Data must be quantitative.

Data Collection

1. Collect data as often as possible.
2. The Principal Researcher should collect all data.
3. Data may also be collected by an agency employee or caregiver with approval from your major professor.

Treatment Fidelity

1. As the primary researcher, the student is responsible for implementing procedures.
2. Treatment fidelity should be collected by a trained observer whenever possible.
3. Treatment fidelity data should be collected for at least 25% of all data collected in each phase of the study.

Reliability

1. Each study must include the participation of at least one secondary observer, for purposes of collecting reliability (interobserver agreement) data.
2. Secondary observers must be trained prior to collecting data, and the training procedures must be included in the methods section of the capstone project paper.
3. Written training materials must be included as appendices to the capstone project paper.
4. Training should continue until interobserver agreement (IOA) reaches at least 80%.
5. IOA should be calculated for at least 25% of all data collected, in each phase of the study.
6. Anyone implementing procedures must be trained to criterion.
7. All training procedures must be included in the methods section.

Social Validity

1. Social validity should be assessed via objective measures when possible (e.g., evaluating preference for the intervention through concurrent arrangements).