

S Y L L A B U S

Spring 2006

- COURSE: SE 3013-02
Introduction to Single-Subject Research Methodology
- CLASS MEETING: Thursday, 4:10-7:00 PM
Wyatt 122
- INSTRUCTOR: Mark Wolery, PhD, Professor of Special Education
- OFFICE HOURS: By appointment
Phone: 322-8278, e-mail: mark.wolery@vanderbilt.edu
Office: MRL 416C
Note: I often work with my door closed; knock loudly and I will answer if I am available.
- Mailbox Mailbox is on the third floor of MRL building, beside the elevators in a cabinet with drawers.
- CREDITS: Three (3)
- REQUIRED READINGS: Kennedy, C. H. (2004). *Single-case designs for educational research*. Boston: Allyn and Bacon.
Additional readings (see attached reading list) are available on electronic reserve.

COURSE DESCRIPTION

This is an initial course in the use of single subject research methodology within Special Education. It includes an overview of behavioral measurement, single subject research designs, and methods of data analysis. Critical analysis of research articles occurs. Development of a single subject research proposal is required.

COURSE OBJECTIVES

During and upon completion of the course, the learner will (through discussions, activities, written products, and presentations) demonstrate the following knowledge and performance competencies:

1. Describe and apply the logic, foundations, and rationale of single subject research methods.
2. Write research questions for single subject studies from the literature and experience.
3. Define behaviors for measurement and describe methods for measuring those behaviors.

4. Use appropriate methods for calculating inter-observer agreement, including point-by-point, chance formula, and the gross method.
5. Describe the requirements, advantages, uses, and limitations of single subject demonstration designs, including the withdrawal design, reversal design, multiple baseline designs, multiple probe design, changing criterion design, and combinations of these designs.
6. Describe the requirements, advantages, uses, and limitations of comparative single subject designs, including the alternating treatments designs (multi-element designs), multi-treatment designs, adapted alternating treatments designs, and parallel treatments designs.
7. Describe the threats to internal validity and describe methods for detecting, minimizing, and controlling for the effects of extraneous variables.
8. Describe the characteristics of data, display data graphically, and describe data by its characteristics.
9. Conduct formative and summative evaluations of data using visual inspection procedures, descriptive statistics, and inferential statistics.
10. Describe the rationale, uses, measurement, and calculation of procedural fidelity data.
11. Describe the logic for external validity of single subject studies.
12. Define and describe the measurement of the social validity of goals, procedures, and effects of single subject experimental studies.
13. Write the introduction, methods, and data analysis procedures for single subject studies.
14. Discuss ethical issues involved in experimental studies.

COURSE FORMAT

Class sessions will be conducted in a combined format of lectures and discussions. Students are expected to come to class thoroughly prepared to discuss the topics of the readings. This preparation will be assessed through quizzes taken in class, class discussions, and a cumulative final examination. Emphasis will be placed on students acquiring the competencies needed to conceptualize, plan, implement, evaluate, describe, and critique single subject experimental research. Students will be responsible for making applications of the content to their current interests and areas of expertise.

GENERAL REQUIREMENTS AND GRADING

1. The course relies heavily on student participation; thus, class attendance is required as is being ready to start class at the assigned time. Students are expected to ask questions, make relevant comments, listen to peers' comments and questions, and participate in class activities.
2. Cell phones should be turned off during class meetings, with the exception of potential emergencies (e.g., child is sick).
3. All assignments must be submitted at the class meeting on the assigned due date. Email the instructor to request an alternative date.

4. All products must be typed and doubled spaced, including those submitted for early review (tables may be single spaced). Hand written products will not be read or graded. Use the APA style manual as a guide in writing products for the course.
5. Students are expected to retain copies of materials they submit to the instructor.
6. "People first" language should be used in written products and class discussions.
7. Incomplete grades are assigned in accordance with the University regulations. Students must notify the instructor when an incomplete grade is desired. Upon notification, a contract will be devised for the completion of the course activities and filed with in the Departmental office.
8. The major product (research proposal) may be submitted for early review. Early submitted proposals will be read, feedback will be given, and a grade assigned. You may:
 - Accept the grade, or.
 - Based on the feedback, you may revise the proposal and submit it at the regular due date. If you submit a revision, you must also submit the original proposal with the instructor's feedback and the feedback form.
9. All grading will be done as objectively as possible; however, in the case of qualitative assessment, the evaluation will be based on the instructor's judgment.
10. The Vanderbilt University Honor Code will be operational in this course.
11. The instructor may assign bonus points for exceptionally outstanding products.
12. The instructor reserves the right to add readings if new and important papers appear related to the class topics but were not available at the initiation of the course.
13. Students may target a grade of "A" or "B." The amount of work for an "A" is greater than that for a "B." The work must meet quality standards to receive either grade.
14. Students may submit proposals to substitute for given assignments. The proposals should be 1 page describing the substitute activity, the activity it would replace, and the reason(s) the substitute activity should be accepted. Quizzes and class presentations cannot be substituted. Proposals are due on **third class meeting**. The instructor will approve or disapprove all proposals in writing.
15. If you desire accommodations to increase your success in this course, please contact the instructor; the instructor will be happy to make reasonable accommodations.

DESCRIPTION OF LEARNING ACTIVITIES

Purpose of Activities

The learning activities for this course are designed to serve three functions: (1) ensure students acquire the competencies needed to conduct rigorous single subject research; (2) reflect students' individual experiences, expressed interests, and perceived needs; and (3) assist students in becoming contributing members of the special education research community.

Types of Activities

Activities completed by all students: (a) homework exercises, (b) quizzes on the content of the readings and discussions, (c) written research proposal for a single subject study, and (d) final examination. Activities completed by students seeking a Grade of "A": Complete the IBR application for the study in your proposal.

Overview of Activities

Below is an overview of the activities for the course. A detailed description of the background, purpose, procedures, products, and evaluation criteria for each activity (other than quizzes and homework) is presented in the description of activities; read these detailed descriptions.

1. Homework exercises. Homework exercises will be described in class and will focus on applying the constructs and practices discussed in class and described in the readings. Six assignments will be given, and each is worth 3 points for a total of 18% of the course grade.
2. Quizzes. Four (4) quizzes are scheduled and are worth 9% of the course grade. The quizzes will be cumulative for the readings and class discussions. The quizzes will be objective using a variety of item formats, including short answer questions, multiple choice questions in which multiple choices may be correct, true and false items in which the false statements must be rewritten to make them true, matching questions, and data analysis and calculation questions. The lowest quiz score will be dropped.
3. Research proposal. Each student will submit a research proposal similar to a dissertation or thesis proposal. The proposed study must use single subject research methods. The product should include (a) an introduction—short (4-5 pages) review of the literature and rationale for the study; (b) purpose statement and research question(s) (concluding portion of the introduction); (c) complete and detailed method section; (d) a series of steps for both formative and summative data analysis; and (e) reference list.
4. Final examination. A cumulative final examination will occur during the final examination period and is worth 10% of the course grade.

Activities for Grade of A

Students seeking a grade of A complete an additional assignment, which is the IRB application for their proposed study. Forms for the application can be obtained from the VU website. The application should include the consent forms.

Learning Activity, Point Values, and Due Dates

Learning Activity	Point value	Due Dates	
Class participation	8	All class sessions	
Quiz (four total, lowest score is dropped; 3 points each)	9	2/2, 2/16, 3/16, 3/30	
Homework (6 assignments, 3 points each)	18	2/2, 2/9, 2/16, 2/23, 3/2, 4/13	
Major research proposal (45 points)	45	Early submission	3/23
		Final submission	4/6
IRB application	10	4/20	
Final examination	10	To be scheduled	
Total	100		

TENTATIVE SCHEDULE

Below, the tentative schedule for class topics, quizzes, and product due dates are presented.

Session	Topic	Reading (see reading list)	Products/Quizzes
1/12	Intro and initial content: Context, origins, characteristics of single subject research methods	None	None
1/19	Foundational constructs: threats to internal validity, procedures for detecting and controlling threats	Horner et al. (2005) Kennedy, Chapters 1, 2, & 3 (emphasis on Chapter 3)	None
1/26	Research questions, description of procedures, procedural fidelity	Kennedy, Chapter 5 Lane et al. (no date) <i>Logan et al. (1998)</i> <i>Bryan & Gast (2000)</i>	None
2/2	Data collection: observational systems, electronic data collection, IOA, semi-logarithmic data presentation	Kennedy, Chapters 6, 7, and 8	Quiz Homework # 1
2/9	Data display and analysis	Kennedy, Chapter 15	Homework # 2
2/16	Demonstration designs: reversal and withdrawal	Kennedy, Chapter 9 <i>Austin et al. (2005)</i> <i>Ivey et al. (2004)</i>	Quiz Homework # 3
2/23	Demonstration designs: Multiple baseline	Kennedy, Chapter 11 <i>Tate et al. (2005)</i> <i>Wood et al. (1998)</i>	Homework # 4
3/2	Demonstration designs: Multiple probe designs, changing criterion designs	Hartman & Hall (1976) Horner & Baer (1978) <i>Keel & Gast (1992)</i> <i>Ganz & Sigafos (2005)</i>	Homework # 5
3/9	Spring break		
3/16	Comparison designs: Issues (reversibility, separation of treatments, multi-treatment interference) and the alternating treatments (multi-element) design	Holcombe et al. (1994) Kennedy, Chapters 10 and 12 <i>Dawson et al. (2000)</i> <i>Ryan & Hemmes (2005)</i>	Quiz
3/23	Comparison designs: multi-treatment design, multi-sequence variant of the multiple baseline design, adapted alternating treatments design	Noell & Gresham (2001) <i>Firman et al. (2002)</i> <i>Saunders et al. (2005)</i> <i>Wolery et al. (2000)</i> <i>Miracle et al. (2001)</i>	Early submission of major proposal
3/30	Comparison designs: Parallel treatments design, interactions	Hains & Baer (1989) Gast & Wolery (1978) <i>Tekin, & Kjrcaali-Iftar (2002)</i> <i>Rohena et al. (2002)</i>	Quiz
4/6	Replication and external validity	Birnbrauer (1981) Kennedy, Chapter 4	Major proposal
4/13	Social validity and IRB	Kennedy Chapter 16 Wolf (1978)	Homework # 6
4/20	Statistical analysis of data	Kazdin (1984)	IRB protocol
Final			

READING LIST BY DATE DUE

NOTE:

- The readings from the text are listed on the tentative schedule.
- The readings below are on electronic reserve.

January 19, 2006

Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S. L., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practices in special education. *Exceptional Children, 71*, 165-179.

January 26, 2006

Lane, K., Wolery, M., Reichow, B., & Rogers, L. (no date). *Describing baseline conditions: Suggestions for study reports*. Manuscript in progress. (Will be emailed; not on electronic reserve)

Articles for discussion; read one of the following:

- Logan, K. R., Jacobs, H. A., Gast, D. L., Murray, A. S., Daino, K., & Skala, C. (1998). The impact of typical peers on the perceived happiness of students with profound multiple disabilities. *Journal of the Association for Persons with Severe Handicaps, 23*, 309-318.
- Bryan, L. C., & Gast, D. L. (2000). Teaching on-task and on-schedule behaviors to high-functioning children with autism via picture activity schedules. *Journal of Autism and Developmental Disorders, 30*, 553-567.

February 16, 2006

Articles for discussion; read one of the following:

- Austin, J. L., & Agar, G. (2005). Helping young children follow their teachers' directions: The Utility of high probability command sequences in pre-k and kindergarten classrooms. *Education and Treatment of Children, 28*, 222-236.
- Ivey, M. L., Helfin, L. J., & Alberto, P. (2004). The use of social stories to promote independent behaviors in novel events for children with PDD-NOS. *Focus on Autism and other Developmental Disabilities, 19*, 164-176.

February 23, 2006

Articles for discussion; read one of the following:

- Tate, T. L., Thompson, R. H., McKerchar, P. M. (2005). Training teachers in an infant classroom to use embedded teaching strategies. *Education and Treatment of Children, 28*, 206-221.
- Wood, S. J., Murdock, J. Y., Cronin, M. E., Dawson, N. M., & Kirby, P. C. (1998). Effects of self-monitoring on on-task behaviors of at-risk middle school students. *Journal of Behavioral Education, 8*, 263-279.

March 2, 2006

Hartmann, D. P., & Hall, R. V. (1976). The changing criterion design. *Journal of Applied Behavior Analysis, 9*, 527-532.

Horner, R. D., & Baer, D. M. (1978). Multiple-probe technique: A variation of the multiple baseline design. *Journal of Applied Behavior Analysis, 11*, 189-196

Articles for discussion; read both:

Ganz, J. B., & Sigafoos, J. (2005). Self-monitoring: Are young adults with MR and autism able to utilize cognitive strategies independently? *Education and Training in Developmental Disabilities, 40*, 24-33.

Keel, M. C., & Gast, D. L. (1992). Small-group instruction for students with learning disabilities: Observational and incidental learning. *Exceptional Children, 58*, 357-368.

March 16, 2006

Holcombe, A., Wolery, M., & Gast, D. L. (1994). Comparative single-subject research: description of designs and discussion of problems. *Topics in Early Childhood Special Education, 14*, 119-145.

Articles for discussion; read one of the following:

Dawson, L., Venn, M. L., & Gunter, P. L. (2000). The effects of teacher versus computer reading models. *Behavioral Disorders, 25*, 105-113.

Ryan, C. S., & Hemmes, N. S. (2005). Effects of the contingency for homework submission on homework submission and quiz performance in a college course. *Journal of Applied Behavior Analysis, 38*, 79-88.

March 23, 2006

Noell, G. H., & Gresham, F. M. (2001). A multiple-sequence variant of the multiple-baseline design: A strategy for analysis of sequence effects and treatment comparison. *School Psychology Quarterly, 16*, 207-221.

Articles for discussion; read one of the following:

Firman, K. B., Beare, P., & Loyd, R. (2002). Enhancing self-management in student with mental retardation: Extrinsic versus intrinsic procedures. *Education and Training in Mental Retardation and Developmental disabilities, 37*, 163-171.

Saunders, R. R., McEntee, J. E., Saunders, M. D. (2005). Interaction of reinforcement schedules, a behavioral prosthesis, and work-related behavior in adults with mental retardation. *Journal of Applied Behavior Analysis, 38*, 163-176.

Articles for discussion; read one of the following:

Wolery, T. D., Schuster, J. W., & Collins, B. C. (2000). Effects on future learning of presenting non-target stimuli in antecedent and consequent conditions. *Journal of Behavioral Education, 10*, 77-94.

Miracle, S. A., Collins, B. C., Schuster, J. W., & Grisham-Brown, J. (2001). Peer- versus teacher-delivered instruction: Effects on acquisition and maintenance. *Education and Training in Mental Retardation and Developmental Disabilities, 36*, 373-385.

March 30, 2006

- Hains, A. H., & Baer, D. M. (1989). Interaction effects in multi-element designs: Inevitable, desirable, and ignorable. *Journal of Applied Behavior Analysis, 22*, 57-69.
- Gast, D. L., & Wolery, M. (1988). Parallel treatments design: A nested single subject design for comparing instructional procedures. *Education and Treatment of Children, 11*, 270-285.

Articles for discussion; read one of the following:

- Tekin, E., & Kjrcaali-Iftar, G. (2002). Comparison of the effectiveness and efficiency of two respond prompting procedures delivered by sibling tutors. *Education and Training in Mental Retardation and Developmental Disabilities, 37*, 283-299.
- Rohena, E. L., Jitendra, A. K., & Browder, D. M. (2002). Comparison of the effects of Spanish and English constant time delay instruction on sight word reading by Hispanic learners with mental retardation. *Journal of Special Education, 36*, 169-184.

April 6, 2006

- Birnbrauer, J. S. (1981). External validity and experimental investigation of individual behavior. *Analysis and Intervention in Developmental Disabilities, 1*, 117-132.

April 13, 2006

- Wolf, M. (1978). Social validity: The case for subjective measurement or how applied behavior analysis is finding its heart. *Journal of Applied Behavior Analysis, 11*, 203-214.

April 20, 2006

- Kazdin, A. E. (1984). Statistical analysis for single-case experimental designs. In D. Barlow & M. Hersen (Eds.), *Single case experimental designs* (pp. 285-324). Boston: Allyn & Bacon.

DESCRIPTION OF LEARNING ACTIVITIES

Home Work

Homework # 1: Identifying Study Procedures

This activity is designed to allow you to read an assigned article and identify the procedural variables in the baseline and intervention conditions of a study. Make a table with three columns titled, procedural variable, baseline condition, and intervention condition. Enter a description of the procedures for each condition of the study. Articles for which you can do this exercise are; they are available on electronic reserve:

- Methe, S. A., & Hintze, J. M. (2003). Evaluating teacher modeling as a strategy to increase student reading behavior. *School Psychology Review, 32*, 617-623.
- Sutherland, K. S., Alder, N., & Gunter, P. L. (2003). The effects of varying rates of opportunities to respond and academic requests on the classroom behavior of students with EBD. *Journal of Emotional and Behavioral Disorders, 11*, 239-248.

Homework # 2: Research Questions

This activity will be described in class. For the study in your research proposal, write a short paragraph (3-5 sentences) describing the purpose of the proposed study, and then write the research question and label the type of research question. In addition, write three other research questions and identify the type of question—these should be for the remaining types of research questions from Kennedy (2005, chapter 5). These additional questions may be related to the study in your research proposal or may focus on other topics.

Homework # 3: Procedural Fidelity Assessment

Using direct observation, propose a method for measuring the procedures listed in the article used for Homework # 1 (Methe & Hines, 2003; Sutherland et al., 2003). Your product should include (a) a definition of each procedure to be measured, and (b) a description of the methods you would use to measure each procedure.

Homework # 4: Data Analysis

You will receive a handout with a series of graphs. You will be asked to apply specific visual analysis judgment aids to those graphs and make judgments about whether changes existed across the condition, and if so, what the nature of those changes were.

Homework # 5: Describing Graphed Data

You will receive a series of graphed data. Your task will be to write a description (a paragraph or two) of the changes in the data patterns.

Homework # 6: Replications

For your major proposal, you will be asked to describe three replication studies. The replication studies cannot include using different types of (a) participants on diagnostic and demographic variables, (b) settings, or (c) implementers. Write a paragraph (3-5 sentences) indicating what you expect the results of your study (major proposal) to be, and then list a research question and a short (3-4 sentences) description of each subsequent study. You may list the assumed results from each study if that is helpful to you, but you are not required to do so.

Research Proposal for a Single Subject Experimental Study (Major Proposal)

Background

The single subject research methods have emerged over the last 40 years as a major approach for investigating environment-behavior relationships (e.g., interventions, treatments). Applied behavior analysts drove this emergence, but the methods have utility to special educators because individuals with disabilities are a heterogeneous group, even within diagnostic categories. Thus, special education scientists should be competent in reading, critiquing, and conducting such studies.

Purpose

This activity is to help you refine your skills in developing research proposals for single subject experimental studies. The activity simulates a proposal for a thesis or dissertation study. Other

purposes are to assist you in narrowing your research interests, refining a technical writing style, and demonstrating acquisition and application of course competencies.

Procedures

You must propose an experimental study using a single subject design; do not propose a study with any other research method. You should propose the most rigorous methods possible and include citations to the literature, when appropriate, in the method section.

1. Identify a topic of study. If you use this assignment to start on your actual thesis or dissertation proposal, talk with your advisor about the topic and research questions(s).
2. Review the relevant literature and write a 4- to 6-page summary of the reports building a rationale for your study.
3. Based on the review of literature, identify and describe the purpose of your study and list the relevant research questions (usually less than three questions).
4. Determine and describe the method section of your study, taking care to use operational terms and precise and detailed descriptions. Ensure the description of the method is feasible, operational, and replicable. To be replicable, a colleague should be able to take the method section and do the study in a manner identical to your intentions without your consultation. Thus, give your product to a classmate to read and give feedback.
 - a. Describe the participants, setting, and materials (if any) that would be used. In the description of the participants identify the number involved; and describe the inclusion and exclusion criteria, demographic criteria, functional criteria, and any measures you would collect for describing the participants. For the setting and materials, describe them precisely and completely. Use metric measures.
 - b. Describe and define the responses you will measure, including examples and non-examples. Identify the type of measurement system you will use and describe how it will be implemented, how observers will be trained, and how interobserver agreement data will be collected and calculated.
 - c. Describe the experimental design to be used and include a justification for using the design rather than potential alternatives. Describe the procedural and parameters of each experimental condition, and describe how and on what procedural fidelity data will be collected.
5. Develop a table (of procedural and contextual variables) with at least three columns: procedural/contextual variable, condition 1, condition 2. For the first column, (e.g., location, time of day, instructor, aspects of the setting, peers present, materials, experimental procedures, and all others that are relevant to your study). For the conditions columns, list how each procedural variable will be implemented in the respective condition. This table should help you think broadly and precisely about every potential variable that may be responsible for any differences existing in the collected data under your study conditions. If your study has more than two conditions, add a column for each additional condition.
6. Describe in precise terms, the steps you will take to conduct formative and summative data analyses. Include any criteria and formula you will use when analyzing your data. Rely heavily on the handout provided in class on formative and summative evaluation.

Product

The product for the research proposal should be written using the fifth edition of the APA style manual. Proof the product carefully and ensure it is free of mechanical errors. Your target audience is other scientists. The proposal will include:

- (a) An introduction that is a 4- to 6-page review of the literature building a rationale for the study. It should conclude with a purpose statement (one paragraph) and the research questions.
- (b) A method section that includes a detailed and thorough description of the participants, setting, materials, response definitions, measurement procedures, interobserver agreement procedures, experimental design, procedures and parameters of each experimental condition, and methods for measuring procedural fidelity. Look at the subsections used in the method section of most published studies as models; however, your description should be ***more detailed*** than is common in most published reports. The organization the method section should be appropriate to your study; the order of some sections may vary by study.
- (c) A data analysis section with two sub-sections: (a) steps/methods for the formative evaluation of the data, and (b) steps/methods for the summative evaluation of the data.
- (d) Include a graph that would depict all experimental conditions; you do not need to generate hypothetical data, but include a graph with appropriate labels depicting your design.
- (e) An appended table of procedural variables, which should ***not*** be referred to in the proposal.
- (f) Reference list of all cited reports.

Due Dates

- Early submission (optional) for free feedback and review is 3/23.
- Research proposal is due 4/6.

Evaluation

The major research proposal is worth 45 points (45% of the course grade). It is evaluated on the following dimensions.

Dimension	% of 43 points
1. Introduction summarizes exiting literature and is conceptually sound, logical, current, written clearly, and builds a case for the study	5
2. Introduction concludes with purpose statement and research questions that are feasible, stated appropriately (includes participants, dependent variable, and independent variable), and important	5
3. Method section includes	
<ul style="list-style-type: none"> • <u>Participants</u> are described by stating the inclusion and exclusion criteria, demographic characteristics, functional characteristics, and measures for describing the participants 	3
<ul style="list-style-type: none"> • <u>Setting and materials</u> are defined operationally, replicable, appropriate to research questions, and control for plausible threats to internal validity; 	2

metric units are used.	
<ul style="list-style-type: none"> • <u>Experimental design</u> is named, operationally defined, appropriate to the research questions, controls for plausible threats to internal validity, and includes a rationale. 	8
<ul style="list-style-type: none"> • <u>Procedures</u> for each condition (including baseline conditions) are defined operationally, replicable, feasible, appropriate to the research questions, and control for plausible threats to internal validity 	18
<ul style="list-style-type: none"> • <u>Independent variables</u> are defined operationally; feasible; based in the literature; and appropriate to the research questions, participants, and context (this may not be a separate section but be a part of the experimental procedures) 	8
<ul style="list-style-type: none"> • <u>Behaviors</u> to be measured are defined operationally, replicable, feasible, and appropriate to the research question 	3
<ul style="list-style-type: none"> • <u>Measurement system</u> is defined operationally; feasible; replicable; and appropriate for the research questions, behavior, design, and setting 	5
<ul style="list-style-type: none"> • <u>Inter-observer agreement</u> procedures are defined, feasible, and appropriate for the measures and context 	5
<ul style="list-style-type: none"> • <u>Procedural fidelity</u> procedures are defined operationally, feasible, replicable, and appropriate to the study procedures 	3
4. Table of procedural variables is comprehensive and shows control for plausible threats to internal validity	10
5. Data analysis	
<ul style="list-style-type: none"> • <u>Steps and timelines</u> for conducting <u>formative</u> evaluation of the data are described, appropriate, and feasible 	5
<ul style="list-style-type: none"> • <u>Steps</u> for conducting a <u>summative</u> evaluation of the data are described, appropriate, and feasible 	5
<ul style="list-style-type: none"> • Graph, with or without hypothetical data, depicting the experimental conditions is presented 	5
6. The organization, style, and presentation of the product are appropriate and in compliance with the fifth edition of the APA style manual, including the reference list.	10

IRB Proposal
PRODUCT FOR GRADE OF A

Background

To ensure the rights of research participants are protected, the appropriate Institutional Review Board (IRB) must review each study. Approval from the IRB is required before subject recruitment and data collection can begin.

Purpose

The purpose of this activity is to assist the student in completing the IRB application for their proposed thesis study.

Procedures

1. Go to the VU website (www.mc.vanderbilt.edu/irb/) and download the appropriate forms (i.e., form # 1124)
2. Complete the requested information, including the consent forms.
3. Write informed consent forms for each type of participant included.

Product

1. The completed forms protocol forms.
2. Completed consent forms.

Due Date

IRB protocol is due April 20.

Evaluation

The IRB protocol is evaluated on completeness and accuracy of the information provided and is worth 10 points (10 points)