**EDP 7058: Behavioral Interventions Research and Evaluation**

**FALL 2013**

Class meets on Thursdays, 5:00–7:40 PM

Location: Graham Center 275 B

Professor: Dr. Martha Pelaez (Office: ZEB 242B).

Phone Number: 305-348-2090

E-mail: pelaeznm@gmail.com

Web Site: http://www.fiu.edu/~pelaeznm/

Office Hrs: Mondays 2:15-4:45 pm

 Thursdays 2:15-4:45 pm

Office Hours: I will make every attempt to be flexible to accommodate your schedule. I can also meet you before or after class sessions and/or on other days by appointment.

**Course Description and Learning Objectives:** This course is designed to develop knowledge and skills needed to design, implement, and evaluate behavioral interventions using single-subject design in research projects. The course learning objectives were designed for those studying/working in educational, psychological, health and clinical/therapy settings, and they include:

1. To articulate the relationship between single case research methodology and behavior analysis, specifically being able to:
	* Describe the operant conditioning model and learning principles
	* Explain all components of the three-term contingency
	* Define and apply positive and negative reinforcement and provide examples of each.
	* Define punishment and provide examples.
	* Define stimulus control, discriminative stimulus and S-delta.
	* Describe, extinction, generalization, ad discrimination
2. To apply single case research procedures to address questions and issues in your applied area(s) of interests and thus empower you to demonstrate competence in making the connection between research questions, design, methods and procedures, methods for analysis of data, and interpretation and discussion of results;
	* Use various single-subject design research methodologies to determine and demonstrate functional relations and apply to the functional behavior assessment plans required for children with disabilities or adults with behavioral and mental health challenges in clinical settings.
	* Develop a research proposal to modify a behavior in an educational, family or clinical settings.
	* To evaluate and critique single case studies for methodological soundness, in particular by describing and resolving methodological concerns and issues related to using single case designs in applied settings
	* Define functional relationship;
	* Describe the considerations relevant in determining priorities for goals and objectives for students with disabilities and/or clients in clinical settings;
	* Develops skills in pinpointing and assessing target behaviors and identify the reasons for conducting a behavioral assessment;
	* Develops skills in displaying, summarizing and interpreting data;
	* Define and use response measures that provide direct, continuous measurement, and dimensional quantities of behavior (e.g., rate, frequency, latency, magnitude, duration, and topography);
	* Define and use response measures that provide indirect, discontinuous measurement and dimensionless quantities of behavior (e.g., percent of occurrence, trials to criterion, partial interval recording, whole interval recording, and momentary time sampling);
	* Select the best graphic display to effectively communicate quantified relationships.

**Required Course Texts**:

Richards, S. B., Taylor, R., Ramasamy, R. (2014*). Single-Subject Research: Applications in Education and Clinical Settings.* Wadsworth, CA. (ISBN-13: 978-1-133-96317-2)

Web-based Reading Material for Learning about “Functional Behavior Assessment”:

Miller, J. (2004). [*Multi-modal functional assessment of behavio*r](http://mfba.net/).Web-assisted tutorial maintained by Duquesne University at this URL address: <http://mfba.net/> [http://mfba.net/forms.html]

American Psychological Association. (2005).*The publication manual of the American Psychological Association*, 5th ed. Washington, DC: Author.

**Suggested Readings**

* [Article Title: Perhaps it would be better not to know everything](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/perhaps-it-would-be-better/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/perhaps-it-would-be-better/)
* Baer, D.M. (1977). *Journal of Applied Behavior Analysis, 10*, 167-172.
* [Article Title: Some current dimensions of applied behavior analysis.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/some-current-dimensions/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/some-current-dimensions/)
* Baer, D.M., Wolf, M.M., & Risley, T.R. (1968). *Journal of Applied Behavior Analysis, 1*, 91-97.
* [Article Title: Some still-current dimensions of applied behavior analysis. More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/some-still-current-dimensions/)
* Baer, D.M., Wolf, M.M., & Risley, T.R. (1987*). Journal of Applied Behavior Analysis, 20*, 313-327.
* [Article Title: Procedural reliability: A rationale and an example.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/procedural-reliability/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/procedural-reliability/)
* Billingsley, R., White, O.R., & Munson, R. (1980*). Behavioral Assessment, 2*, 229-241.
* [Article Title: Inconsistent visual analysis of intrasubject data. More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/inconsistent-visual-analysis/)
* DeProspero, A., & Cohen, S. (1979). *Journal of Applied Behavior Analysis, 12*, 573-579.
* [Article Title: The effects of code complexity and of behavioral frequency on observer accuracy and interobserver agreement. More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/effects-of-code-complexity/)
* Dorsey, B.L., Nelson, R.O., & Hayes, S.C. (1986). *Behavioral Assessment, 8*, 349-363.
* [Article Title: A method for combining occurrence and non-occurrence interobserver agreement scores.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/combining-occurrence-and-non-occurrence/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/combining-occurrence-and-non-occurrence/)
* Harris, R.C., & Lahey, B.B. (1978). *Journal of Applied Behavior Analysis, 11*, 523-527
* [Article Title: Methods of time sampling: A reappraisal of momentary time sampling and partial interval recording.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/methods-of-time-sampling/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/methods-of-time-sampling/)
* Harrop, A., & Daniels, M. (1986*). Journal of Applied Behavior Analysis, 19*, 73-77.
* [Book Title: Single case experimental designs: Strategies for Studying behavior change.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/single-case-experimental-designs/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/single-case-experimental-designs/)
* Herson, M., & Barlow, D. H. (1984). New York: Pergamon Press.
* [Article Title: The use of single-subject research to identify evidence-based practice in special education.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/use-of-single-subject-research/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/use-of-single-subject-research/)
* Horner, R.H., Carr, E.G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005*). Exceptional Children*, 71, 165-179.
* [Book Title: Replication. Strategies and tactics of human behavioral research](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/replication-strategies-and-tactics/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/replication-strategies-and-tactics/)
* Johnston, J.M., & Pennypacker, H.S. (1980). (pp. 303-324). Hillsdale, NJ: Lawrence Erlbaum.
* [Book Title: The development of behavioral research methods: Contributions of B.F. Skinner. Readings for Strategies and Tactics of Behavioral Research](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/development-of-behavioral-research-methods/).
* Johnston, J.M., & Pennypacker, H.S. (1993). 2nd Ed. (pp. 8-17). Hillsdale, NJ: Lawrence Erlbaum.
* [Article Title: The integrity of independent variables in behavior analysis. More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/integrity-of-independent-variables/)
* Peterson, B.S., Homer, A.L., & Wonderlich, S.A. (1982*). Journal of Applied Behavior Analysis, 15,* 477-492.
* [Journal Article: A comparison of frequency, interval, and time-sampling methods of data collection. More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/frequency-interval-and-time-sampling/)
* Repp, A.C., Roberts, D.M., Slack, D.J., Repp, C.F., & Berkler, M.S. (1976*). Journal of Applied Behavior Analysis, 9*, 501-508.
* [Article Title: What is the experimental analysis of behavior?](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/what-is-the-experimental-analysis-of-behavior/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/what-is-the-experimental-analysis-of-behavior/)
* Skinner, B.F. (1966). *Journal of the Experimental Analysis of Behavior, 9*, 213-218.
* [Article Title: A brief report on a comparison of time -sampling procedures.](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/brief-report-on-comparison-of-time-sampling-procedures/) [More info...](http://www.library.unt.edu/research-tools/class-pages/edsp-6800-advanced-single-subject-research-methods/suggested-readings/brief-report-on-comparison-of-time-sampling-procedures/)
* Thomson, C., Holmberg, M., & Baer, D.M. (1974). *Journal of Applied Behavior Analysis, 7*, 623-626.

**Additional Supporting References:**

Alberto, P.A. & Troutman, A.C. (2009). Applied behavior analysis for teachers (7th ed.). Upper Saddle River, NJ: Pearson Education, Inc.

Backman, C.L. & Harris, S.R. (1999). Case Studies, Single-Subject Research, and N of 1 Randomized Trials. Comparisons and Contrasts. American Journal of Physical Medicine & Rehabilitation, 78(2), 170–6.

Bobrovitz, C.D. & Ottenbacher, K.J. (1998). Comparison of Visual Inspection and Statistical Analysis of Single-Subject Data in Rehabilitation Research. Journal of Engineering and Applied Science, 77(2), 94–102.

Busse, R.T.; Kratochwill, T.R. & Elliott, S.N. (1995). Meta-analysis for single-case consultation outcomes: Applications to research and practice. Journal of School Psychology. 33, 269–85.

Chen, C.W. & Ma, H.H. (2007). Effects of the treatment of disruptive behaviors: A quantative synthesis of single-subject designs using the PEMS Approach. The Behavior Analyst Today, 8(4), 380–97 BAO

Cooper, J.O.; Heron, T.E.; Heward, W.L. (2007). Applied Behavior Analysis (2nd ed. ed.). Prentice Hall. ISBN 0-13-142113-1.

den Noortgate, W. & Onghena, P. (2003b). Hierarchical linear models for the quantitative integration of effect sizes in single-case research. Behavior Research Methods, Instruments, & Computers, 35, 1–10

Gresham, F., McIntyre, L.L., Olson-Tinker, H., Dolstra, L., McLaughlin, V. & Van, M. (2004). Relevance of functional behavioral assessment research for school based behavioral intervention and positive behavioral support. Research in Developmental Disabilities, 25, 19–37.

Kazdin, Alan (2010). Single-Case Research Designs: Methods for Clinical and Appplied Settings. New York: Oxford University Press.

Nishith, P.; Hearst, D.E.; Mueser, K.T. & Foa, E. (1995). PTSD and Major Depression: Methodological and Treatment Considerations in a Single-Case Design. Behavior Therapy, 26(2), 297–9

Thompson, C. K. (1986). Flexibility of Single-subject Experimental Designs. Part III: Using Flexibility to Design or Modify Experiments. The Journal of Speech and Hearing Disorders, 51(3), 214–25

Tripodi, T. (1998). A Primer on Single-Subject Design for Clinical Social Workers. Washington, DC: National Association of Social Workers (NASW) Press.

Yu-Jing Gao & Hsen-Hsing Ma (2006). Effectiveness of Interventions Influencing Academic Behaviors: A Quantitative Synthesis of Single-Subject Researches using the PEM Approach. The Behavior Analyst Today, 7(4), 572–8. BAO

Van den Noortgate, W. & Onghena, P. (2007). Aggregating Single-Case Results. The Behavior Analyst Today, 8(2), 196–209. BAO.

**Graph paper**: This will be needed to practice the many graphing skills learned in class and for collecting your data.

**Internet Access**: You are required to have access to the Internet, to use line graphs programs, email, and ability to access course notes, quiz reviews/questions, and websites.

**Conceptual Framework:** The conceptual framework of this course is derived from pragmatism, reinforcement theory, ethics, and applied behavior analysis. Single subject research designs provide an alternative for educators and clinicians who want to study the impact of selected environmental conditions and/or treatments on the behaviors of individuals. The single subject design is particularly well suited for studying those behaviors that are considered idiosyncratic, i.e., do not occur often within the so-called normal distribution of behaviors and thus is a good model for studying individuals with disabilities or clinical problems. In this course, the application of single subject designs will be questioned in light of the 4 frameworks:

**Interculturalism**: Promoting common understandings and addressing issues of diversity with respect (in single subject design language this is referred to as ‘establishing social validity’);

**Interconnectedness**: Valuing the contributions of various cultures;

Inquiry: Using critical thinking, reflective and ethical practices;

Instructional Leadership: Creating meaningful single-subject research proposals.

**3.0** **Course Requirements and Grading**

**3.1** **Exam**: The exam will assess understanding of reading material, lectures, and class activities. Essay exams are intended to ensure that you have acquired the “language” of single-subject research design with emphasis on education, learning and mental health.

**3.2** **Research Proposal**: You will conduct a research project designed to investigate the effects of an intervention on a specified student or individual behavior using single-subject design research strategies. The project will include a literature review on the behavior selected, research question(s), methods, hypothetical results, discussion section, and references prepared in accordance with APA guidelines. The results of the reversal phase(s) (in the instructor’s approved cases) could be represented with *graph* data (the baselines and intervention) under exempt IRB category (and requires instructor’s approval).

**3.3 Single–Subject–Research Presentation**: You will select, present, a critique of one article from the literature suggested above representing a specific single-subject design (e.g., ABAB withdrawal, multiple baseline, alternating treatments, or changing criterion design). This critique should identify weakness in the design or its implementation and ways to improve it. Each of your two presentations is to be no longer than 20 minutes and should include time for at least 2 questions from the class. A presentation is to be accompanied by a short powerpoint (slides) and copies should be distributed among all students. Make sure you include a graph representing results from the selected research article.

**3.4 Data Collection/Graphing Projects**: You will learn various types of direct observation strategies. You will be required to collect data in real situations using these strategies and then to graphically represent the data.

**3.5 Class Discussions**: Participation in each session requires that you have read the assigned material and are be prepared to ask/answer questions.

**3.6 Functional Assessment of Behavior (FAB) Project**: **One** of the final project questions for this course will require you *to apply* the content and concepts of this course by elaborating on a **Functional Assessment of Behavior (FAB**).

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| **Course Requirements and Learning Outcomes:** | **Max Total Points (400)** |
| **Research Project (APA written Paper**):

|  |  |
| --- | --- |
| \*Cover Page &\*Literature Review on: Single Subject design, and area/topic assigned--the Target behavior  | (20) |
| \*Formulation of Research Question(s): Functional Assessment of Behavior (FAB) | (10) |
| \*Description of Method (Design) and Intervention Steps (IV) | (20) |
| \*Description of Resultsincluding graphs, and tables  | (20) |
| \*Discussion and Conclusion | (10) |
| \*List of References  | (20) |

 | **100**  |
| Single Subject Research Project to be presented in-class:A Clear Powerpoint Presentation |   **50**  |
| Midterm Exam (100 points) |  **100**  |
| Submit Project to COE Research Conference following submission instructions--via Internet. Confirmation letter/mail required for your final grade. |  **150** (300 out of the 400 points relate to your project= 75%) |

Course grades are based on the percentage of number of points earned. In keeping with the FIU/COE grading system, final letter grades will be assigned as follows:

95 -100 = A 90 - 94 = A- 87 - 89 = B+

84 - 86 = B 80 - 83 = B- 77 - 79 = C+

74 – 76 = C 70 - 73 = C- 67 - 69 = D+

64 – 66 = D 60 - 63 = D- < 60 = F

|  |  |
| --- | --- |
| **Earned Grade** | **Calculate on basis of Percent of 400 points** |
| A- to A  | 90-94% of 400, 95-100% of 400 |
| B- to B to B+ | 80-83% of 400, 84-86% of 400, 87-89% of 400 |
| C- to C to C+ | 70-73% of 400, 74-76% of 400, 77-79% of 400 |

**Academic Honesty:** Academic honesty is the expected norm. Cheating, plagiarism, falsifying one’s reports, and other forms of academic dishonesty will not be tolerated and will be referred to the University’s Committee on Academic Misconduct; *this action that is required of all instructors*. Regarding the consequences of dishonest academic practice, *the instructor shall make an academic judgment* about the participants’ grade on that work and in that course and shall report such incidents to the Primary Administrative Office *In addition, participants are expected to adhere to the code of ethics in the conduct of research and professional practice for school psychologists (*[*http://www.nasponline.org/certification/ethics.html*](http://www.nasponline.org/certification/ethics.html)*) or special educators (*[*http://www.cec.sped.org/ps/ps-ethic.html*](http://www.cec.sped.org/ps/ps-ethic.html)*).*

**Class Attendance: It is expected that all participants will be in attendance for all class sessions**. This is a class that requires active participation from each member. If you miss a class, you would be responsible for any material given or changes made during the class period. *If you miss more than 2 classes, you may forfeit your opportunity to earn a grade of A.*

**Office of Disability Services for Students:** If you have a disability and need assistance, please notify me and/or contact the Office of Disability Services for Students (348-3532). Upon contact, the Office of Disability Services for Students will review your request and contact your professors or other appropriate personnel to make arrangements for appropriate reasonable accommodations and modifications and/or assistance.

**Course Schedule (subject to modifications)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Date/ Session** | **Lecture Topic by Dr. Martha Pelaez** |  | **Reading DUE** |
| 8/29 | Historical Perspectives and Important Concepts in Single-Subject Research.Assignment of *Topic and Design* for Research Proposal |  | Chapter 1 |
| 9/05 | Methods for Changing Target Behaviors; Single Subject Research Design for project discussed/topics assigned |  | Read Chapter 1 |
| 9/12 | Methods for Changing Target Behaviors; Single Subject Research Designs assignedMethods for Recording Target Behaviors  |  | Read Chapter 2 – Methods for Changing Target Behaviors Chapters 2 & 3—Methods for Recording Behavior Literature Review (listed APA) and 1 page Research Question and Design of Research Paper/Project |
| 9/19  | Discussion: Each student will briefly describe the topic for his/her research project, target behavior, and the method s/he plans to use to obtain relevant articles.Issues in Single-Subject Research |  | Review Chapter 3 andRead Chapter 4 Read Horner’s article (first half) |
| 9/26  | Withdrawal Designs (ABA, ABAB..) |  | Chapter 5 |
| 9/29 | Functional Assessment of BehaviorGraphing and visual analysis |  | Fill the FAB forms from Miller’s WebsiteChapter 13  |
| 10/03  | Overview of Applications of Withdrawal designs  |  | Chapter 6  |
| 10/10 | **Students´ Presentations begin**: Each student will “explain the research design used, DV, IV, steps of treatment/intervention, how were are being data collected, results in progress, reliability and conclusions. Changing Conditions and Changing Criterion Designs |  | Review Chapter 3 again. Use **Design Form** in the syllabusRead Chapter 7  |
| 10/17  | Overview of Applications of Changing CriterionMultiple Baseline Designs and Applications |  | Chapter 8 Chapter 9 & 10 |
| 10/24 | **MIDTERM EXAM** |  | Study Chapters 1-10 |
|  |  |  |  |
| 10/31 | Alternating Treatments Designs Issues in Analyzing Results from Single-Subject Studies |  | Chapter 11Read Horner´s article (second half) |
| 11/0711/14 11/21 | Submit your Project via e-mail at 5 pm—No-face to-face classApplication of Alternating Treatment DesignsReviewing in Class your Submission for COE research conferenceMethods for Analyzing DATA | **DUE** | First Draft of your 12-page Paper/Project with Graphs results due via E-mail to: pelaeznm@gmail.comChapter 12Chapter 13Review the textbook with the idea of how you will include your assigned single-subject research design as a way of verifying your hypothesis about the function of the participant’s behavior and as a way of determining whether or not the behavioral intervention is having the desired/hypothesized effects.  |
| 11/28 | **NO CLASS****Thanksgiving**  |  |  |
| 12/05 | Methods for Analyzing DATA | DUE | Chapter 13 continues…FINAL **WRITTEN** **RESEARCH REPORT to Dr. Pelaez** |
| 12/12 | FINAL: submission copy of Research Project to COE Research Conference |  |  |

**Suggested Reading Material for Critiques on**

**Single Subject Research Designs and for Projects**

Studies using Withdrawal Designs should be found in the *Journal of Applied Behavior Analysis*. Some references as examples include**:**

Nientimp, E.G., & Cole, C. L. (1992). Teaching socially valid social interaction responses to students with severe disabilities in an integrated school setting. *Journal of School Psychology, 30*, 342-354. (Summarized on pp. 124-129 in textbook).

Muir, K. A., & Milan, M. A. (1982). Parent reinforcement for child achievement: The use of a lottery to maximize parent-training effects. *Journal of Applied Behavior Analysis, 15,* 455-460. (Summarized on pp. 129-133).

Handen, B. C., Parrish, J. M., McCLung, T. J. , Kerwin, M. E. , & Evans, L. D. (1992). Using guided compliance versus time out to promote child compliance: A preliminary comparative analysis in an analogue context. *Research in Developmental Disability, 13,* 157-170. (Summarized on pp. 133-137).

Carnine, D. W. (1976). Effects of two teacher–presentation rates on off-task behavior, answering correctly, and participation. *Journal of Applied Behavior Analysis, 2,* 199-206. (Summarized on pp. 137-143).

**Other withdrawal designs:**

Egner, A., & Pigeon, G. (1972). Increasing completion and accuracy of assignments for a hyperactive first grade repeater. *School Applications of Learning Theory,4*, 24-30.

McKenzie, H., Egner, A., Knight, M., Perelman, P., Schneider, B., & Garvin, J. (1970). Training consulting teachers to assist elementary teachers in the management and education of handicapped children. *Exceptional Children, 36*, 137-143.

Pelaez, M., Virués-Ortega, J., & Gewirtz, J. L. (2012). Acquisition of social referencing via discrimination training in infants. Journal of Applied Behavior Analysis, 45(1), 23–35. (The acceptance rate is 25%. Impact factor is 1.11.)

Pelaez, M., Virués-Ortega, J., & Gewirtz, J. L. (2011). Reinforcement of vocalizations through contingent vocal imitation. Journal of Applied Behavior Analysis, 44(1), 33-40. (The acceptance rate for papers in 2011 was 25%. For 2010, JABA’s impact factor was 1.11.)

Pelaez, M., Virués, J., & Gewirtz, J. L. (2011). Contingent and noncontingent reinforcement with maternal vocal imitation and motherese speech: Effects on infant vocalizations. European Journal of Behaviour Analysis, 12(1), 277-287. (The acceptance rate for papers fluctuates between 40-55%.

**Multiple Baseline Designs:**

Hargrove, P.M., Roetzel, K., & Hoodin, R. B. (1989). Modifying the prosody of a language-impaired child. *Language, Speech, and Hearing Services in the Schools, 20,* 24-258 (Summarized on pp. 174-179).

Yoder, P.J., Yarren, S. F., Kim, K., & Gazdag, G. E. (1994). Facilitating prelinguistic communication skills in young children with developmental delay: II. Systematic replication and extension. *Journal of Speech and Hearing Research, 37,* 841-851. (Summarized on pp. 179-184).

Cushing, L.S., & Kennedy, C. H. (1997). Academic effects of providing peer support in general education classrooms on students without disabilities. *Journal of Applied Behavior Analysis, 30,* 139-151. (Summarized on pp. 184-190).

Nevin, A., Johnson, D., & Johnson, R. (1982). Effects of group and individual contingencies on academic performance and social relations of special needs students*. Journal of Social Psychology, 116*, 41-59.

**Alternating Treatment Designs:**

Caldwell, M.L., Taylor, R. L., & Bloom, S. R. (1986). An investigation of the use of high-and low-prefernce food as a reinforcer for increased activity of individuals with Prader-Willli syndrome. *Journal of Mental Deficiency research, 30*, 347-354. (Summarized on pp. 210-214).

Pelaez-Nogueras, M., Field, T., Cigales, M., Gewirtz, J. Gonzalez, A., Clasky, S., & Sanchez, A. (1997). The effects of systematic stroking versus tickling and poking on infant attention and affect. *Journal of Applied Developmental Psychology, 18*, 169–177.

Weismer, S. E., Murray-Branch, J., & Miller, J. (1993). Comparison of two methods for promoting productive vocabulary in late talkers. *Journal of Speech and Hearing Research, 36,* 1037-1050. (Summarized on pp. 215-220).

Singh, N., & Winton, A. (1985). Controlling pica by components of an overcorrection procedure. *American Journal of Mental Deficiency, 90*, 40-45. (Summarized on pp. 221-225).

**Examples from FIU/COE Faculty with students with learning disabilities:**

Barbetta, P., & Heward, W. (1993). Effects of active student response during error correction on the acquisition and maintenance of geography facts by elementary students with learning disabilities. *Journal of Behavioral Education, 3*(3), 217-233.

Jerome, A., & Barbetta, P.M. (2004). The effect of active student responding in computer assisted instruction on social-studies learning by students with learning disabilities. *Journal of Special Education Technology,* *20*(3), 13-23.

**Changing Criterion Designs:**

Davis, P., Bates, P., & Cuvo, A. J. (1983). Training a mentally retarded woman to work competitively: Effect of graphic feedback and a changing criterion design. *Education and Training of the Mentally Retarded, 18*, 158-163. (Summarized on pp. 244-248).

Foxx, R. M., & Rubinoff, A. (1979). Behavioral treatment of caffeinism: Reducing excessive coffee drinking. *Journal of Applied Behavior Analysis*, *12*, 335-344. (Summarized on pp. 248-257).

De Luca, R., & Holborn, S. W. (1992). Effects of a variable-ratio reinforcement schedule with changing criterion on exercise in obese and non-obese boys. *Journal of Applied behavior Analysis, 25,* 671-679. (Summarized on pp. 257-262).

Idol, L., Nevin, A., with Whitcomb, Phyllis Paolucci (1989). *Models of curriculum-based assessment, 3rd ed.* Austin, TX: PRO-ED.

Knight, M., Christie, L., Egner (Nevin), A., Lates, B.J., & Paolucci, P. (1976). Rate of task completion as an evaluation procedure for a field-based graduate training program in special education. In L. Fraley & E. Vargas (Eds.), *Behavior research and technology in higher education* (pp. 99-112). Gainesville, FL: University of Florida.

**Theoretical Papers:**

Novak, G., & Pelaez, M. (2011). *Autism: A behavioral-systems approach*. In E. A. Mayville and J. A. Mulick (Eds.), Behavioral foundations of effective autism treatment (pp. 13-33). Cornwall-on-Hudson, NY: Sloan Publishing.

Pelaez, M., & Novak, G. (In press). “Hidden” Skills and Deficits in the Emergence of Autism*, European Journal of Behavior Analysis (EJOBA*), Special Issue on the Sarasota Symposium honoring S. Murray (MS # 2012-84, E. Arntzen & P. Holth, Editors).

**Organizing for Single Subject Reviews & Methodological Critiques**

**Process**: You will be assigned to one of 5 topics (designs):

1) withdrawal (ABAB, BAB..) designs

2) multiple baseline (MBD) designs

3) changing criterion designs (CCD)

4) alternating treatment designs (ATD)

**Your task** is to find a suitable example of the assigned single subject research design/topic published in either a behavioral, behavior analysis, school psychology, mental health, clinical psychology, or special education field of interest to you. You can conduct this search for suitable examples individually or as a member of a search group (comprised of others who are also assigned to the same design). Your responsibility is to find the 1 articles and provide the author, date, title, journal, volume, issue, and pages and abstract to me on the date listed in the calendar.

**EXAMPLE:** You may search ERIC, Psychinfo, or other data bases. For example, in a search of articles published between 1990p-2011 in ERIC, I used the keywords “multiple baseline” and “special education” published in journals, 6 articles appeared, including this one:

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| --- | --- |
| **ERIC #:** | EJ697210 |
| spacer |
| **Title:** | Effects of Immediate Performance Feedback on Implementation of Behavior Support Plans |
| spacer |
| **Authors:** | [Codding, Robin S.](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_1=au&ERICExtSearch_Operator_1=OR&ERICExtSearch_SearchValue_1=%22Codding+Robin+S.%22&searchtype=authors); [Feinberg, Adam B.](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_2=au&ERICExtSearch_Operator_2=OR&ERICExtSearch_SearchValue_2=%22Feinberg+Adam+B.%22&searchtype=authors); [Dunn, Erin K.](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_3=au&ERICExtSearch_Operator_3=OR&ERICExtSearch_SearchValue_3=%22Dunn+Erin+K.%22&searchtype=authors); [Pace, Gary M.](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&_urlType=action&newSearch=true&ERICExtSearch_SearchType_4=au&ERICExtSearch_Operator_4=OR&ERICExtSearch_SearchValue_4=%22Pace+Gary+M.%22&searchtype=authors)   |
| spacer |
| **Descriptors:** | [Student Behavior](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Student+Behavior%22); [Integrity](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Integrity%22); [Special Education Teachers](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Special+Education+Teachers%22); [Feedback](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Feedback%22); [Behavior Disorders](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Behavior+Disorders%22); [Behavior Modification](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Behavior+Modification%22); [Program Effectiveness](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Program+Effectiveness%22); [Contingency Management](http://www.eric.ed.gov:80/ERICWebPortal/Home.portal?_nfpb=true&_pageLabel=ERICSearchResult&newSearch=true&ERICExtSearch_Descriptor=%22Contingency+Management%22);  |
| spacer |
| **Journal/Source Name:**  | *Journal of Applied Behavior Analysis*, *38*(2), 205-227. |
| spacer |
| **Publication Date:** | 2005 |
| spacer |
| **Publisher:** | Department of Applied Behavioral Science, 1000 Sunnyside Ave., KU, Lawrence, KS 66045-2133. Web site: <http://seab.envmed.rochester.edu>[Back issues FREELY accessed.] |
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**Abstract:** Research has focused on increasing the treatment integrity of school-based interventions by utilizing performance feedback. The purpose of this study was to extend this literature by increasing special education teachers' *treatment integrity* for implementing antecedent and consequence procedures in an ongoing behavior support plan. A *multiple baseli*ne across teacher-student dyads (for two classrooms) design was used to evaluate the effects of performance feedback on the percentage of antecedent and consequence components implemented correctly during 1-hf observation sessions. Performance feedback was provided every other week for 8 to 22 weeks after a stable or decreasing trend in the percentage of antecedent or consequence components implemented correctly. Results suggested that performance feedback increased the treatment integrity of antecedent components for 4 of 5 teachers and consequence components for all 5 teachers. These results were maintained following feedback for all teachers across antecedent and consequence components. Teachers rated performance feedback favorably with respect to the purpose, procedures, and outcome, as indicated by a social validity rating measure.

FORMAT FOR Summary Review of the Research Article of your Research Project using Single-Subject Design (Please submit the complete list of references you have selected after your literature review—be sure to use APA standards for citing the references).

**The [insert type] Design FORM**

Authors, (date), Title of article, *Title of Journal, Vol. # (*Issue#), pp.

(Title of your Research Project)

**Research Question(s)**

# Subjects

**Setting**

**Dependent Variables**

**Independent Variables**

**The Design**

**The Intervention**

**Obtaining the Data and Plotting the Results**

**Results**

**Why Use This Design?**

# Limitations of the Study

**Summary Table**

**Table 1.** Summary of “[insert title of article]”

|  |  |
| --- | --- |
| **Feature** | **Description** |
| Type of Design |  |
| Goal of the Study |  |
| Subjects |  |
| Setting |  |
| Dependent Variables |  |
| Independent Variables |  |
| Results and Outcomes |  |

Student´s research projects will have to be uploaded as TaskStream. Our [FIU COE Website](http://education.fiu.edu/) is a place that you can refer for information on just about everything you need to know—for example, [Current Students Website](http://education.fiu.edu/student_resources.htm) has links for scholarships, financial aid, maps & directions, the advising center, taskstream, etc.  We are posting all syllabi for all courses at: <http://www.fiu.edu/~edpsy/fall09-syllabi/> .