 SPC ED 619

The Application of Applied Behavior Analysis to

Academic Research in Special Education

# Fall 2014

# Weekly Schedule of Readings & Tasks

**Reading**s that are numbered (i.e., 1, 2, 3) are required and should be read before class. Readings marked with an asterisk\* will provide additional information on the topics discussed in class or mentioned in the text but are not required readings.

**Tasks** related to the readings/topics are listed for each week. These involve some type of question for class discussion or materials for a class activity. Read these carefully and bring any needed materials to be ready to participate in class.

**NOTE**: Not all of the citations below are in correct APA style due to page constraints. So please do NOT use these as a model for how to correctly format references. Instead, use the *APA Manual of Style* (6th ed) for all papers.

| **Week** | **Readings** | **Tasks** |
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| Week 1 | 1. Baer, D. M., Wolf, M. M., & Risley, T. R. (1968). Some current dimensions of applied behavior analysis. *Journal of Applied Behavior Analysis, 1*, 91-97. (**We will discuss key ideas from this foundational article but you will not be expected to have read it before Class 1; be sure you have read it prior to Class 2.**) | *What educational or clinical issues interest you: what are you curious about? What skills could your students/clients benefit from learning? Or what behaviors might they benefit from changing? What interventions have you thought you might like to try with your students or clients? Begin considering which of these might pose research questions that could be appropriately investigated using single case research methods.*  |
| Week 2 | 1. Gast, D. L. (2010). Chapters 1 & 2. (pp. 1-31). *Single subject research methodology in behavioral sciences*. New York: Routledge.2. Gast, D. L. (2010). Chapter 3 (pp. 32-56)3. Hardicre, J. (2014). An overview of research ethics and learning from the past. *British Journal of Nursing, 23*(9), 483-486.4. Kratochwill et al. (2010). Single-case design technical documentation. (pp. 1-4). Retrieved from the What Words Clearinghouse website: <http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf>5. Hawken, L. (2011). Common steps and barriers you may have to deal with in conducting a research study (pp. 67-78). In R. O’Neill, J McDonnell, F. Billingsley, & W. Jenson (Eds.) *Single case research designs in educational and community settings*. Boston: Pearson. | *What do you see as the goal of research/scholarship? How is research different from practice? Where does single case research fit among the various research methodologies?**What are the ethical principles that apply to research? Be ready to defend your opinions.* |
| Week 3 | 1. Fisher, M. H., Burke, M. M., & Griffin, M. M. (2013). Teaching young adults with disabilities to respond appropriately to lures from strangers. *Journal of Applied Behavior Analysis, 46*, 528-533.
2. Gast, D. L. (2010). Chapter 4 (pp. 67-81). *Single subject research methodology in behavioral sciences*. New York: Routledge.
3. Horner, R. H., Carr, E. G., Halle, J., McGee, G., Odom, S., & Wolery, M. (2005). The use of single-subject research to identify evidence-based practice in special education. *Exceptional Children, 71*, 165-179.

 **(We will refer to this article throughout the semester. The quality indicators described in this article will serve as a framework for assessment of the quality of your research proposal.)**\*McDonnell, J., & O’Neill, R. (2003). A perspective on single/within subject research methods and “scientifically based research”. *Research & Practice for Persons with Severe Disabilities, 28*, 138-142.\*Odom, S. L., Brantlinger, E., Gersten, R., Horner, R. H., Thompson, B., & Harris, K. R. (2005). Research in special education: Scientific methods and evidence-based practices. *Exceptional Children, 71*, 137-148. | *What does “evidence-based” mean? Be able to describe a practice that your school/agency uses that your organizations considers “evidence-based”.* *Read the Fisher et al. (2013) article carefully, noting the various sections within the paper and paying special attention to the research question. We will use these in class*. |
| Week 4 | 1. Gast, D. L. (2010). Chapters 5 (pp. 91-109) & 6 (pp. 110-128). *Single subject research methodology in behavioral sciences*. New York: Routledge.2. Kratochwill et al. (2010). Single-case design technical documentation. (pp.5-11). Retrieved from the What Works Clearinghouse website: <http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf> | *Bring a draft research question to class – one based on an intervention you would like to examine using a single case research design. Incorporate into the draft the elements of developing a good research questions that we discussed/ you read about last week. (You will turn these in.)* |
| Week 5 | Gast, D. L. (2010). Chapter 7 (pp. 129-156). *Single subject research methodology in behavioral sciences*. New York: Routledge.2. Kratochwill et al. (2010). Single-case design technical documentation. (pp. 12-17). Retrieved from the What Works Clearinghouse website: <http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf>3. Kennedy, C. H. (2005). Social validity. *Single-case designs for educational research* (pp. 218-233). Boston: Allyn and Bacon.4. Strain, P. S., Barton, E. E., & Dunlap, G. (2012). Lesson learned about the utility of social validity. *Education and Treatment of Children, 25*(2), 183-200.\*Wolf, M. 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.\*Thompson, T., Symons, F. J., & Felce, D. (2000). Principles of behavioral observation. In Thompson, T., Felce, D., & Symons, F. J. (Eds.). *Behavioral observation: Technology and applications in developmental disabilities*. (3-16). Baltimore, P. H. Brookes. | *Be sure to look back over the Fisher et al. (2013) study we examined in Week 3 so you will be ready for Dr. Griffin’s discussion with the class.**Think about the research proposal you will be developing: last week you worked on a research question. This week, consider what might be an appropriate dependent variable(s) (DV) for this proposed study.**How will you measure the social validity of your study’s purpose, the intervention procedures, and its outcomes? Be ready to discuss some ideas for each area.* |
| Week 6 | 1. Gast, D. L. (2010). Chapter 7 (pp. 156-165). *Single subject research methodology in behavioral sciences*. New York: Routledge.2. Gast, D. L. (2010). Chapter 8 (pp. 166-198). *Single subject research methodology in behavioral sciences*. New York: Routledge. \*Kazdin, A. (2013). Graphic display of data for visual inspection. In *Single-case research designs* (pp. 322-351) (2nd ed.). New York: Oxford University Press.\*Thompson, T., Symons, F. J., & Felce, D. (2000). Principles of behavioral observation. In Thompson, T., Felce, D., & Symons, F. J. (Eds.). *Behavioral observation: Technology and applications in developmental disabilities*. (3-16). Baltimore, P. H. Brookes | *Consider the dependent variable(s) (DV) you want to use in your proposed research study. Bring to class a draft of an operational definition for each DV you are considering. (You will turn these in.)**Using these operational definitions, think about how you could reliably measure this behavior: What dimension will you measure? What data collection system might you use? How would you train observers? Conduct IOA? Be ready to discuss your thinking with the class.* |
| Week 7 | 1. Gast, D. L. (2010). Chapter 9 (pp. 199-233). *Single subject research methodology in behavioral sciences*. New York: Routledge. 2. Horner, R. H., Swaminathan, H., Sugai, G., & Smolkowski, K. (2012). Considerations for the systematic analysis and use of single-case research. *Education and Treatment of Children, 35*(2), pp. 269-290.3. Kratochwill et al. (2010). Single-case design technical documentation. (pp. 17-21). Retrieved from the What Works Clearinghouse website: <http://ies.ed.gov/ncee/wwc/pdf/wwc_scd.pdf>\* Kazdin, A. (2013). Graphic display of data for visual inspection. In *Single-case research designs* (pp. 322-351) (2nd ed.). New York: Oxford University Press. | *This week we will practice visual data analysis in class. Be sure you are familiar with the key elements of visual analysis discussed in the Gast, Horner et al., and Kratochwill et al. chapters. Bring your laptop to class; if you don’t own one, please check with Susan.* |
| Week 8 | 1. Gast, D. L. (2010). Chapter 10 (pp. 234-275). *Single subject research methodology in behavioral sciences*. New York: Routledge. 2. Lane, K., Wolery, M., Reichow, B., & Rogers, L. (2007). Describing baseline conditions: Suggestions for study reports. *Journal of Behavioral Education, 16*, 224-234.3. Gresham, F. M., Van, M. B., & Cook, C. R. (2006). Social skills training for teaching replacement behaviors: Remediating acquisition deficits in at-risk students. *Behavioral Disorders, 31*, 363-377. | *We will discuss and examine withdrawal and reversal designs. What are the strengths and weaknesses of these designs? For what type of questions are they best used? Think about your research question: could it be investigated using this type of design?* |
| Week 9 | 1. Gast, D. L. (2010). Chapter 11 (pp. 276-328). *Single subject research methodology in behavioral sciences*. New York: Routledge. 2. Ross, S. W., & Horner, R. H. (2009). Bully prevention in positive behavior support. *Journal of Applied Behavior Analysis, 42*, 747-759.3. Ledford, J. R., Gast, D. L., Luscre, D., & Ayres, K. M. (2008). Observational and incidental learning by children with autism during small group instruction. *Journal of Autism and Developmental Disabilities, 38*, 86-103. | *Tonight we will discuss and examine multiple baseline and multiple probe designs. Think about your research question: could it be investigated using one of these designs?**Dr. Ann-Marie Orlando will be presenting and discussing some of her research tonight. What questions might you have for her related to selecting a design and implementing a study?* |
| Week 10 | 1. Gast, D. L. (2010). Chapter 12 (pp. 329-357. *Single subject research methodology in behavioral* *sciences*. New York: Routledge. 2. Freeman, K. A., & Dexter-Mazza, E. T. (2004). Using self-monitoring with an adolescent with disruptive classroom behavior. *Behavior Modification, 28*, 402-419.3. Tincani, M. (2004). Comparing the picture exchange communication system and sign language training for children with autism. *Focus on Autism and Other Developmental Disabilities, 19*, 152-163. | *We will discuss and examine multitreatment and alternating treatments designs that allow comparisons between interventions. Think about your research question: could it be investigated using one of these designs*? |
| Week 11 | 1. Gast, D. L. (2010). Chapter 12 (pp. 358-381. *Single subject research methodology in behavioral* *sciences*. New York: Routledge. 2. Polychronis, S. C., McDonnell, J., Johnson, J. W., Risen, T., & Jameson, M. (2004). A comparison of two trial distribution schedules in embedded instruction. *Focus on Autism and Other Developmental Disabilities, 19,* 140-151.3. Jones, C. D., & Schwartz, I. S. (2004). Siblings, peers, and adults: Differential effects of models for children with autism. *Topics in Early Childhood Special Education, 24*, 187-198. | *We will discuss and examine adapted alternating treatments and parallel treatments designs that allow comparisons between interventions. Think about your research question: could it be investigated using one of these designs*? |
| Week 12 | 1. Gast, D. L. (2010). Chapter 13 (pp. 382-416). *Single subject research methodology in behavioral sciences*. New York: Routledge. 2. Koegel, R. L., Openden, D., & Koegel, L. K. (2004). A systematic desensitization paradigm to treat hypersensitivity to auditory stimuli in children with autism in family contexts. *Research and Practice for Persons with Severe Disabilities, 29*, 122-134.3. Collins, S., Higbee, T. S., & Salzberg, C. L. (2009). The effects of video modeling on staff implementation of a problem-solving intervention with adults with developmental disabilities. *Journal of Applied Behavior Analysis, 42*, 849-854.4. Schindler, H. R., & Horner, R. H. (2005). Generalized reduction of problem behavior of young children with autism: Building trans-situational interventions. *American Journal on Mental Retardation, 110*, 36-47.  | *We are discussing variations on multiple baseline designs and designs that incorporate more than one design element. Again, thinking of your research question, could it be best investigated using one of these designs?* |
| Week 13 | 1. Gast, D. L. (2010). Chapter 14 (pp. 417-453). *Single subject research methodology in behavioral sciences*. New York: Routledge. 2. Wolery, M. (2013). A commentary: Single-case design technical document of the What Works Clearinghouse. *Remedial and Special Education, 43*(1), 39-43.3. Maggin, D. M., Briesch, A. M., & Chafouleas, S. M. (2013). An application of the What Works Clearinghouse Standards for evaluating single-subject research: Synthesis of the self-management literature base. *Remedial and Special Education, 43*(1), 44-58.\*Kratochwill, T. R., & Levin, J. R. (2010). Enhancing the scientific credibility of single-case intervention research: Randomization to the rescue. *Psychological Methods, 15*, 124-144. DOI: 10.1037/a0017736 | *Why are researchers working to find appropriate and valid means of using statistical analysis for single case research data? What are some of the primary problems that have not yet been overcome? What the benefits and drawbacks of using statistical analysis for single case data?* |
| Week 14 | No Readings |  |