

SOCSCI 2UR3: Single Subject Research Design

### Course information:

- Virtual Classroom Thursday 7p-10p
- Instructor: Mary Hume, MEd, MHA(CC), BCBA
- Office: online or by appointment
- Office hours: online or by appointment
- Email: humem@mcmaster.ca

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### **Course Overview**

# **Course Description:**

This course presents an introductory examination to single subject design and its applications in the field of applied behaviour analysis.

### **Course Objectives:**

Upon completion of this course, students will be able to:

- 1) Identify the features of different types of single subject design and their application.
- 2) Explain the differences between various types of single subject designs.
- 3) Explain how treatment effectiveness is determined through single subject designs.
- 4) Develop a research-based proposal for using single subject design.

### **Developing Transferable Skills**

You will work on developing academic skills that are transferable to your other university courses as well as to the workforce. These skills include:

- critical reading and thinking;
- communication (oral, written and visual);
- self and peer evaluation;
- research skills; and
- group work skills.

### **Course Format**

# Course will utilize the Zoom platform to ensure synchronous course sessons on pre-determined dates and times.

This semester we will be incorporating interteaching into class time. Interteaching is an evidence based behavioural approach to learning that requires active student engagement. Students will be required to engage with each other and the materials to build fluency.

Class time will include a traditional lecture led by the facilitator followed by an interteaching session led by students. Students will be required to break up into small groups to go over and complete. "Prep Guides". These guides will be made available prior to class and are filled out by students after they have review class material. At the beginning of each class, the facilitator will use the previous weeks guides to create a clarifying lecture based on student response.

After each interteaching session students will be required to hand in a feedback form to evidence their participation and to inform the following weeks clarifying lecture.

# Sample Class Schedule (times approximate):

- 7-715p Housekeeping
- 715-8p Clarifying Lecture
- 8:05-9p Traditional Lecture
- 9:05p-10p Interteaching Session

### **Required Texts:**

	ISBN	Textbook Title & Edition	Author & Publisher
Required		Single Case Research Designs	O'Neill, R.E., John J. McDonnell,
	9780130623218	in Educational and Community	Felix F. Billingsley, & William R.
		Settings	Jenson (2011). Pearson.
Recommended	9781138685260	Research methods in applied	Bailey, J. S., & Burch, M. R.
	9781138083200	behavior analysis 2 <sup>nd</sup> Edition.	(2017). Pearson. ISBN:
Recommended		Behavior Analysis for Lasting	G. Roy Mayer, Beth Sulzer-Azaroff,
	ISBN: 978-1-59738-050-8	Change, Third Edition	and Michele Wallace Pearson;
			Sloan Publishing

#### **Evaluation Components:**

Evaluation Components.			
Assessment Activity	% of Grade	Date Due	Notes
Hypothetical Research	1) Topic Proposal (3%)	1.September 18, 2020	See Description and
Paper	2) Abstract and	2. October 2, 2020	Rubrics
	Introduction (5%)	3.October 23, 2020	
	3) Methods (7%)	4. November 13, 2020	
	4) Results and	5. December 4, 2020	
	Discussion (5%)		
	5) Final Draft – Hand		
	in with revisions		
	(20% total)		
Quizzes (X3)	20% - 4 x 5%	Dates listed below	Not cumulative
Inter-teaching Prep	20%	Every class	See Description and
Guides and Feedback			Rubrics
TCPS 2: Core Modules	10%	October 9, 2020	To be completed
			online
Graphing Tip Sheets	10%	Assigned dates	See Description and
			Rubrics
Final Exam (Cumulative)	20%	TBD	Cumulative
1	1	1	

### Quizzes (x4):

Content for the quizzes will be derived from the lectures, readings and prep guides. Quizzes are not cumulative. Quizzes will be completed on A2L.

# **Graphing "Tip Sheet" Assignment:**

Groups will be responsible for creating a short "tip sheet" for you classmates. "tip Sheets" should include a basic introduction to the graph and steps to creating the graph. Students are strongly encouraged to meet with the professor at least a week prior to their submission to review information before it is distributed to classmates.

### **Interteach Prep Guides:**

To encourage reading all assigned articles and chapters before class we will be using Interteach Prep Guides this session. Interteach Prep Guides are to be completed prior to class Interteach discussions. Students will be placed in discussion groups (Zoom Breakout groups) to go over over assigned materials and flesh out guides. These guides will be used to facilitate class discussion and notes for quizzes and exams. The faciliatator will join these discussion groups intermittently during the session.

At the end of the Interteach Session students will complete a feedback form and return to the faciliatory. These forms will be used to create clarification lecture for the following class. Activities will be conducted either during the first hour of class or the last half hour, late arrival or absence from class that day will result in a 0, there are no make-ups. Feedback will be submitted through A2L.

### **Hypothetical Research Paper:**

This project will be completed in groups of 2. The purposes of this assignment is for students to gain experience in (a) designing a study using single-case methodology, and (b) writing a research paper. The approximate page length of a journal brief report article (Max. 3000 words). Projects must be APA-formatted. The project should use either a withdrawal design, a variation of the multiple baseline design, changing criterion design, a variation of the alternating treatments design, or a combination design.

You will choose a topic and look into the literature for at least 10 peer-reviewed articles on the topic. You will propose a single-subject design study for a fictitious problem in class, during seminar and hand in a 1-page justification of your topic. The papers should demonstrate synthesis and evaluation of key course concepts related to single-case research design.

Sections of the research paper will be handed in separately throughout the semester (due dates indicated below). Feedback will be provided per section. A revised final draft of the research paper will be handed in on the final day of class (with revisions highlighted). If revisions meet the criteria of the rubric, grades will be changed to reflect final revisions. Templates and Rubrics will be provided via A2L.

### **TCPS 2: Core Modules:**

The purpose of completing these modules is to provide students with a broad overview of conducting human subject research. The online tutorial is an introduction to the 2nd edition of the Tri-Council Policy Statement: Ethical Conduct for Research Involving Humans (TCPS 2). It consists of eight modules focusing on the guidance in TCPS 2 that is applicable to all research regardless of discipline or methodology. Students must provide proof of completion via email. The modules can be accessed here: <a href="http://tcps2core.ca/">http://tcps2core.ca/</a>

### Final Exam (cumulative):

The final exam is cumulative and will include content covered in class and in the readings over the course of the semester. Exam will be administered via A2L.

# **Assignment Submission Guidelines**

### Guidelines:

Written Assignments: All written assignments are to be typed and double-spaced. Please include a title page with your name, student number and email address, the topic title of the assignment and the date submitted. Please submit a paper copy to the Instructor at the start of class on the due date as well as submit one file copy per group to the appropriate Dropbox in Avenue 2Learn. Submitting Assignments Electronically: Individual assignments submitted electronically must include your last name in the filename: e.g. Smith\_Assignment\_5\_Article\_Assessments.rtf.

Late Submissions: All work is due on the date stated, at the beginning of class, unless other arrangements have been made in advance with the instructor. A late penalty of 5 percentage points per day will apply after the due date (weekends included).

Class Participation and Engagement: Class participation and engagement is an important component of this course (and of active learning). Therefore, we expect all students to be 'active' participants in this course. This means attending all classes, being actively involved in class activities and thoughtful discussion, and completing all assignments. The success of this course depends on you! Students who are most successful in this course fulfill these expectations and engage in all aspects of the course!

Group Assignments: For all group assignments, ALL students in the group must be contributing members of that assignment. The expectation is that each student will be an active and respectful member of their group and contribute to the assignment - in a fair and equitable way. Group work is sometimes challenging, but it can also be rewarding in a number of ways, including providing you with opportunities to develop valuable 'working-as-a-team' skills that will serve you well in this and other courses, as well as more broadly in your academic, professional, and personal life.

Submitting Assignments Electronically: Individual assignments submitted electronically must include your last name in the filename: e.g. Smith\_Assignment\_5\_Article\_Assessments.docx

Policy for Returning Assignments/Posting Grades: In accordance with regulations set out by the Freedom of Information and Privacy Protection Act, the University will not allow the return of graded materials by placing them in boxes in departmental offices or classrooms so that students may retrieve their papers themselves; all tests and assignments must be returned directly to the student.

And since it is important for student learning and skills development that students receive feedback on their assignments as they progress through the course, you can expect to receive feedback (comments

and a grade) on each of your examinations and the group assignment in a timely fashion. This will allow you the opportunity to see how you performed on each assignment and time to discuss any questions you might have with your instructor.

Arrangements will be finalized for the return of assignments from the options listed above by the instructor during the first class.

Grades for examinations and the group assignment will be posted in Avenue2Learn. Final grades for the course will be posted on Mosaic.

# **Academic Integrity:**

You are expected to exhibit honesty and use ethical behaviour in all aspects of the learning process. Academic credentials you earn are rooted in principles of honesty and academic integrity. It is your responsibility to understand what constitutes academic dishonesty. Academic dishonesty is to knowingly act or fail to act in a way that results or could result in unearned academic credit or advantage. This behaviour can result in serious consequences, e.g. the grade of zero on an assignment, loss of credit with a notation on the transcript (notation reads: "Grade of F assigned for academic dishonesty"), and/or suspension or expulsion from the university.

It is your responsibility to understand what constitutes academic dishonesty. For information on the various types of academic dishonesty please refer to the <u>Academic Integrity Policy</u>, located at <a href="http://www.mcmaster.ca/academicintegrity">http://www.mcmaster.ca/academicintegrity</a>

The following illustrates only three forms of academic dishonesty:

- 1. Plagiarism, e.g. the submission of work that is not one's own or for which other credit has been obtained.
- 2. Improper collaboration in group work.
- 3. Copying or using unauthorized aids in tests and examinations.

### A Note About the use of Avenue to Learn in this Course:

In this course we will be using Avenue to Learn for the online components of the course. Students should be aware that when they access the electronic components of this course, private information such as first and last names, user names for the McMaster e-mail accounts, and program affiliation, may become apparent to all other students in the same course. The available information is dependent on the technology used. Continuation in this course will be deemed consent to this disclosure. If you have any questions or concerns about such disclosure please discuss this with the course instructor.

### **Authenticity/Plagiarism Detection:**

Some courses may use a web-based service (Turnitin.com) to reveal authenticity and ownership of student submitted work. For courses using such software, students will be expected to submit their work electronically either directly to Turnitin.com or via an online learning platform (e.g. A2L, etc.) using plagiarism detection (a service supported by Turnitin.com) so it can be checked for academic dishonesty. Students who do not wish their work to be submitted through the plagiarism detection software must inform the Instructor before the assignment is due. No penalty will be assigned to a student who does not submit work to the plagiarism detection software. All submitted work is subject to normal verification that standards of academic integrity have been upheld (e.g., on-line search, other software, etc.). For more details about McMaster's use of Turnitin.com please go to <a href="https://www.mcmaster.ca/academicintegrity">www.mcmaster.ca/academicintegrity</a>

### **Online Proctoring:**

**Some courses may** use online proctoring software for tests and exams. This software may require students to turn on their video camera, present identification, monitor and record their computer activities, and/or lock/restrict their browser or other applications/software during tests or exams. This software may be required to be installed before the test/exam begins.

### **Conduct Expectations:**

As a McMaster student, you have the right to experience, and the responsibility to demonstrate, respectful and dignified interactions within all of our living, learning and working communities. These expectations are described in the <a href="Code">Code of Student Rights & Responsibilities</a> (the "Code"). All students share the responsibility of maintaining a positive environment for the academic and personal growth of all McMaster community members, whether in person or online.

It is essential that students be mindful of their interactions online, as the Code remains in effect in virtual learning environments. The Code applies to any interactions that adversely affect, disrupt, or interfere with reasonable participation in University activities. Student disruptions or behaviours that interfere with university functions on online platforms (e.g. use of Avenue 2 Learn, WebEx or Zoom for delivery), will be taken very seriously and will be investigated. Outcomes may include restriction or removal of the involved students' access to these platforms.

### **Faculty of Social Sciences E-Mail Communication Policy:**

Effective September 1, 2010, it is the policy of the Faculty of Social Sciences that all e-mail communication sent from students to instructors (including to TAs), and from students to staff, must originate from the student's own McMaster University e-mail account. This policy protects confidentiality and confirms the identity of the student. It is the student's responsibility to ensure that communication is sent to the university from a McMaster account. If an instructor becomes aware that a communication has come from an alternate address, the instructor may not reply at his or her discretion.

### Requests for Relief for Missed Academic Term Work

McMaster Student Absence Form (MSAF): In the event of an absence for medical or other reasons, students should review and follow the Academic Regulation in the Undergraduate Calendar "Requests for Relief for Missed Academic Term Work".

### Academic Accomodations for Religious, Indigenous or Spiritual Observances (RISO):

Students requiring academic accommodation based on religious, indigenous or spiritual observances should follow the procedures set out in the <u>RISO</u> policy. Students should submit their request to their Faculty Office **normally within 10 working days** of the beginning of term in which they anticipate a need for accommodation or to the Registrar's Office prior to their examinations. Students should also contact their instructors as soon as possible to make alternative arrangements for classes, assignments, and tests.

# **Copyright and Recording:**

Students are advised that lectures, demonstrations, performances, and any other course material provided by an instructor include copyright protected works. The Copyright Act and copyright law protect every original literary, dramatic, musical and artistic work, **including lectures** by University instructors.

The recording of lectures, tutorials, or other methods of instruction may occur during a course. Recording may be done by either the instructor for the purpose of authorized distribution, or by a student for the purpose of personal study. Students should be aware that their voice and/or image may be recorded by others during the class. Please speak with the instructor if this is a concern for you.

### **Extreme Circumstances:**

The University reserves the right to change the dates and deadlines for any or all courses in extreme circumstances (e.g., severe weather, labour disruptions, etc.). Changes will be communicated through regular McMaster communication channels, such as McMaster Daily News, A2L and/or McMaster email.

# **Course Schedule**

Topic, Lecture Details & Homework	Chapter	BACB Content Areas
Introduction to course and course requirements	1	B-01, B-02, B-03, FK-47, FK-48
Article:		TK 17, TK 10
Byiers, B. J., Reichle, J., & Symons, F. J. (2012). Single-subject experimental design for evidence-based practice. <i>American journal of speech-language pathology</i> .		
O'Neil et al. (2011): Chapter 1: Historical Background and Development of Single Case Research Methods		
Ontario Association of Behaviour Analysis (2017). Evidence-Based Practices For Individuals with Autism Spectrum Disorder: Recommendations for Practitioners, Caregivers and Policy Makers Retrieved from http://www.ontaba.org/pdf/ONTABA%20OSETT- ASD%20REPORT%20WEB.pdf		
Interteaching		
Article: Saville, B. K., & Zinn, T. E. (2011). Interteaching. New Directions for Teaching and Learning, 128, 53-61.		
How to read Scholarly Articles Article: Durbin, C. G. (2009). How to read a scientific research paper. Respiratory Care, 54(10), 1366-1371.		
Hudson-Barr, D., & Hudson-Barr, D. (2004). How to read a research article. <i>Journal for Specialists in Pediatric Nursing</i> , 9(2), 70-72.		
Socolofsky, S. A. (2004). How to write a research journal article in engineering and science. <i>Refereed Journal Article</i> , 1-17.		
Subramanyam, R. V. (2013). Art of reading a journal article: Methodically and effectively. <i>Journal of Oral and Maxillofacial Pathology: JOMFP</i> , <i>17</i> (1), 65.		
Interteach Feedback Due		
Social Validity and Selecting Variables  O'Neil et al. (2011): Chapter 2: Defining What to Measure and How to Measure	2	B-01, B-02, H-01, H-02, H-03, H-04, H-05, J-15
Bailey & Burch (2002):		
	Article: Byiers, B. J., Reichle, J., & Symons, F. J. (2012). Single-subject experimental design for evidence-based practice. American journal of speech-language pathology.  O'Neil et al. (2011): Chapter 1: Historical Background and Development of Single Case Research Methods  Ontario Association of Behaviour Analysis (2017). Evidence-Based Practices For Individuals with Autism Spectrum Disorder: Recommendations for Practitioners, Caregivers and Policy Makers Retrieved from http://www.ontaba.org/pdf/ONTABA%20OSETT-ASD%20REPORT%20WEB.pdf  Interteaching  Article: Saville, B. K., & Zinn, T. E. (2011). Interteaching. New Directions for Teaching and Learning, 128, 53-61.  How to read Scholarly Articles Article: Durbin, C. G. (2009). How to read a scientific research paper. Respiratory Care, 54(10), 1366-1371.  Hudson-Barr, D., & Hudson-Barr, D. (2004). How to read a research article. Journal for Specialists in Pediatric Nursing, 9(2), 70-72.  Socolofsky, S. A. (2004). How to write a research journal article in engineering and science. Refereed Journal Article, 1-17.  Subramanyam, R. V. (2013). Art of reading a journal article: Methodically and effectively. Journal of Oral and Maxillofacial Pathology: JOMFP, 17(1), 65.  Interteach Feedback Due  Social Validity and Selecting Variables  O'Neil et al. (2011): Chapter 2: Defining What to Measure and How to Measure It	Introduction to course and course requirements  Article: Byiers, B. J., Reichle, J., & Symons, F. J. (2012). Single-subject experimental design for evidence-based practice. American journal of speech-language pathology.  O'Neil et al. (2011): Chapter 1: Historical Background and Development of Single Case Research Methods  Ontario Association of Behaviour Analysis (2017). Evidence-Based Practices For Individuals with Autism Spectrum Disorder: Recommendations for Practitioners, Caregivers and Policy Makers Retrieved from http://www.ontaba.org/pdf/ONTABA%20OSETT-ASD%20REPORT%20WEB.pdf  Interteaching  Article: Saville, B. K., & Zinn, T. E. (2011). Interteaching. New Directions for Teaching and Learning, 128, 53-61.  How to read Scholarly Articles Article: Durbin, C. G. (2009). How to read a scientific research paper. Respiratory Care, 54(10), 1366-1371.  Hudson-Barr, D., & Hudson-Barr, D. (2004). How to read a research article. Journal for Specialists in Pediatric Nursing, 9(2), 70-72.  Socolofsky, S. A. (2004). How to write a research journal article in engineering and science. Refereed Journal Article, 1-17.  Subramanyam, R. V. (2013). Art of reading a journal article: Methodically and effectively. Journal of Oral and Maxillofacial Pathology: JOMFP, 17(1), 65.  Interteach Feedback Due  Social Validity and Selecting Variables  O'Neil et al. (2011): Chapter 2: Defining What to Measure and How to Measure It

Date	Topic, Lecture Details & Homework	Chapter	BACB Content Areas
	Step 1: Select Your General Topic, Find a Good Setting & Choose Appropriate Participants Step 2: Narrow Down Your Research Question Bosch, S., & Fuqua, R. W. (2001). Behavioral cusps: a model for selecting target behaviors. <i>Journal of Applied Behavior Analysis</i> , 34(1), 123.  Article: Fiske, K., & Delmolino, L. (2012). Use of discontinuous methods of data collection in behavioral intervention: Guidelines for practitioners. <i>Behavior Analysis in Practice</i> , 5(2), 77-81.  LeBlanc, L. A., Raetz, P. B., Sellers, T. P., & Carr, J. E. (2016). A proposed model for selecting measurement procedures for the assessment and treatment of problem behavior. <i>Behavior Analysis in Practice</i> , 9(1), 77-83.  Wolf M. M. (1978). Social validity: the case for subjective measurement or how applied behaviour analysis is finding its heart. <i>J. Appl. Behav. Anal.</i> 11, 203 10.1901/jaba.1978.11-203  TOPIC PROPOSAL DUE		7.11.03
	Interteach Feedback Due  Basic principles of experiments	3	A-01, A-02, A-03,
Week 3 September 24, 2020	O'Neil et al. (2011): Chapter 3: Internal and External Validity and Basic Principles and Procedures of Single Case Research (SCR) Designs  Article: Kazdin, A. E. (1977). Artifact, bias, and complexity of assessment: The ABCs of reliability. <i>Journal of applied</i> behavior analysis, 10(1), 141-150.  Schwartz, I. S., & Baer, D. M. (1991). Social validity assessments: Is current practice state of the art?. <i>Journal</i> of applied behavior analysis, 24(2), 189-204.  Vollmer, T. R., Sloman, K. N., & Pipkin, C. S. P. (2008). Practical implications of data reliability and treatment integrity monitoring. <i>Behavior Analysis in Practice</i> , 1(2), 4- 11.  QUIZ 1 Interteach Feedback Due		A-04, A-05, A-06, A-07, A-08, A-09, A-10, A-11, A-12, A-13, B-01, B-02, B-03, FK-47, FK- 48, J-15
Week 4	Visual Displays	4	H-01, H-03, H-04,
October 1, 2020	O'Neil et al. (2011):		H-05, I-05, FK-47, FK-48, J-15

Date	Topic, Lecture Details & Homework	Chapter	BACB Content Areas
	Chapter 4: Making Sense of Your Data: Using Graphic Displays to Analyze and Interpret It Article: Bulkeley, K., Bundy, A., Roberts, J., & Einfeld, S. (2013). ASD intervention research in real world contexts: Refining single case designs. Research in Autism Spectrum Disorders, 7(10), 1257-1264.		riicus
	Kubina, R. M., Kostewicz, D. E., Brennan, K. M., & King, S. A. (2017). A critical review of line graphs in behavior analytic journals. <i>Educational Psychology Review</i> , <i>29</i> (3), 583-598.		
	Lane, J. D., & Gast, D. L. (2014). Visual analysis in single case experimental design studies: Brief review and guidelines. <i>Neuropsychological rehabilitation</i> , <i>24</i> (3-4), 445-463.		
	ABSTRACT & INTRO DUE Interteach Feedback Due		
	Withdrawal and Reversal Designs	6	B-01, B-02, B-03,
	O'Neil et al. (2011): Chapter 6: Withdrawal and Reversal Designs		B-04, C-01, C-02, C-03, I-01, I-02, I- 01, I-04, I-05, J- 15
	Article: Barrish HH, Saunders M, Wolf MM., (1969).Good Behavior Game: effects of individual contingencies for group consequences on disruptive behavior in a classroom. Journal of Applied Behavior Analysis. 2:119– 124.		
Week 5 October 8, 2020	Carter, C. M. (2001). Using choice with game play to increase language skills and interactive behaviors in children with autism. <i>Journal of Positive Behavior Interventions</i> , <i>3</i> (3), 131-151.		
	Rasmussen, K., & O'neill, R. E. (2006). The effects of fixed-time reinforcement schedules on problem behavior of children with emotional and behavioral disorders in a day-treatment classroom setting. <i>Journal of applied behavior analysis</i> , 39(4), 453-457.		
	Interteach Feedback Due TCPS Core Modules Due		
October 15, 2020	Midterm Break – NO CLASSES		
	Multiple Baseline and Multiple Probe Designs	7	B-01, B-02, B-03,
Week 6			B-07, B-08, C-01,
October 22, 2020	O'Neil et al. (2011): Chapter 7: Multiple Baseline and Multiple Probe Designs		C-02, C-03, I-01, I-02, I-01, I-04, I- 05, J-15

Date	Topic, Lecture Details & Homework	Chapter	BACB Content
	Article: Brobst, B., Ward, P. (2002). Effects of public posting, goal setting, and oral feedback on the skills of female soccer players. Journal of Applied Behavior Analysis.35(3):247–257.  Horner, R. D., & Baer, D. M. (1978). MULTIPLE-PROBE TECHNIQUE: A VARIATION OF THE MULTIPLE BASELINE 1. Journal of applied behavior analysis, 11(1), 189-196.  Lerman D.C, Sansbury T, Hovanetz A, Wolever E, Garcia A, O'Brien E, et al. (2008). Using behavior analysis to examine the outcomes of unproven therapies: An evaluation of hyperbaric oxygen therapy for children with autism. Behavior Analysis in Practice. 2:1–9.  Schepis, M. M., Reid, D. H., Behrmann, M. M., & Sutton, K. A. (1998). Increasing communicative interactions of young children with autism using a voice output communication aid and naturalistic teaching. Journal of applied behavior		Areas
	analysis, 31(4), 561-578.  Recommended: Mayer et al. (2019) pp.185-193  QUIZ 2  METHODS Due Interteach Feedback Due		
Week 7 October 29, 2020	Changing Criterion Designs  O'Neil et al. (2011): Chapter 8: Changing Criterion Designs  Article:  De Luca RV, Holborn SW. (1992). Effects of a variable-ratio reinforcement schedule with changing criteria on exercise in obese and nonobese boys. Journal of Applied Behavior Analysis. 25(3):671–679.  Hartman DP, Hall RV. The changing criterion design. Journal of Applied Behavior Analysis. 1976; 9:527–532  Klein, L. A., Houlihan, D., Vincent, J. L., & Panahon, C. J. (2015). Best Practices in Utilizing the Changing Criterion Design. Behavior Analysis in Practice, 1-10.  Meyers, A. W., Artz, L. M., & Craighead, W. E. (1976). The Effects Of Instructions, Incentive, And Feedback On A Community Problem: Dormitory Noise. Journal of Applied Behavior Analysis, 9(4), 445-457.	8	B-01, B-02, B-03, B-06, C-01, C-02, C-03, I-01, I-02, I- 01, I-04, I-05, J- 15

Date	Topic, Lecture Details & Homework	Chapter	BACB Content Areas
	Recommended: Mayer et al. (2019) pp.559-563		
	Interteach Feedback Due		
	Multiple Treatment Designs  O'Neil et al. (2011): Chapter 9: Multiple Treatment Designs (MTD)  Article: Hanley, G. P., Piazza, C. C., Fisher, W. W., Contrucci, S. A., & Maglieri, K. A. (1997). Evaluation of client preference for	9	B-01, B-02, B-03, B-05, C-01, C-02, C-03, I-01, I-02, I- 03, I-04, I-05, J- 15
Week 8 November 5, 2020	function-based treatment packages. <i>Journal of Applied Behavior Analysis</i> , 30(3), 459-473.  Narayan, J. S., Heward, W. L., Gardner III, R., Courson, F. H.,		
2020	& Omness, C. K. (1990). Using response cards to increase student participation in an elementary classroom. <i>Journal of Applied Behavior Analysis</i> , 23(4), 483-490.		
	Patel, M. R., Piazza, C. C., Martinez, C. J., Volkert, V. M., & Santana, C. M. (2002). An evaluation of two differential reinforcement procedures with escape extinction to treat food refusal. <i>Journal of Applied Behavior Analysis</i> , 35(4), 363-374.		
	Interteach Feedback Due		B-01, B-02, B-03,
	Functional Analysis  Hanley, G. P., Iwata, B. A., & McCord, B. E. (2003).  Functional analysis of problem behavior: A review. <i>Journal of applied behavior analysis</i> , 36(2), 147-185.		B-01, B-02, B-03, B-05, C-01, C-02, C-03, I-01, I-02, I- 03, I-04, I-05, J- 15
	Hanley, G. P. (2012). Functional assessment of problem		
Week 9 November 12, 2020	behavior: Dispelling myths, overcoming implementation obstacles, and developing new lore. <i>Behavior Analysis in Practice</i> , <i>5</i> (1), 54-72.		
	Iwata B. A, Dozier C. L. (2008). Clinical application of functional analysis methodology. Behavior Analysis in Practice.1:3–9.		
	Recommended: Mayer et al. (2019) Chapter pp.567-574		
	QUIZ 3 RESULTS & DISCUSSION DUE Interteach Feedback Due		
Wook 10	Alternating Treatment Designs	10	B-01, B-02, B-03,
Week 10 November 19, 2020	O'Neil et al. (2011):		B-05, C-01, C-02, C-03, I-01, I-02, I-05, J-15

Date	Topic, Lecture Details & Homework	Chapter	BACB Content Areas
	Chapter 10: Alternating Treatment Designs		711003
	Article: Libby M. E, Weiss J. S, Bancroft S, Ahearn W. H. A., (2008). A Comparison of most-to-least and least-to-most prompting on the acquisition of solitary play skills. <i>Behavior Analysis in Practice</i> . 1:37–43.		
	McDonnell, J., & McFarland, S. (1988). A comparison of forward and concurrent chaining strategies in teaching laundromat skills to students with severe handicaps. Research in Developmental Disabilities, 9(2), 177-194.		
	Reinhartsen, D. B., Garfinkle, A. N., & Wolery, M. (2002). Engagement with toys in two-year-old children with autism: Teacher selection versus child choice. <i>Research and Practice for Persons with Severe Disabilities</i> , 27(3), 175-187.		
	Recommended: Mayer et al. (2019) Chapter pp.177-184		
	Interteach Feedback Due		
Week 11 November 26,	Mayer, G. Roy; Sulzer-Azaroff, Beth; Wallace, Michele (2014). Analyzing Behavioral Data with Complex Research Designs, Chapter 25.		A-01, A-02, A-03, A-04, A-05, A-06, A-07, A-08, A-09,
2020	Interteach Feedback Due		A-10, A-11, A-12, A-13, A-14, B-09, B-10, B-11, J-15
Wook 12	Bailey & Burch (2002): Ethics Check and Carrying out Research O'Neil et al. (2011):	5	B-01, B-02, FK- 47, FK-48, K-01, K-02, K-03, K-04, K-05, K-06, K-07,
Week 12 December 3, 2020	Chapter 5: Common Steps and Barriers You May Have to Deal with in Conducting a Research Study		K-08, K-09, K-10, J-15
	QUIZ 4 Final DRAFT Due Interteach Feedback Due		
December 10, 2020	Final Exam Review O'Neil et al. (2011):	11	Review all above
	Chapter 11: Disseminating Your Research Results	1	
TBA	Final Exam		

# **Additional Supplementary Reading:**

Carr J. E, Briggs A. M. (2010). Strategies for making regular contact with the scholarly literature. *Behavior Analysis in Practice*. 3, 13–18.

Deochand, N., Costello, M. S., & Fuqua, R. W. (2015). Phase-change lines, scale breaks, and trend lines using Excel 2013. Journal of applied behavior analysis.

Dixon M. R, Jackson J. W, Small S. L, Horner-King M. J, Mui Ker Lik N, Garcia Y, Rosales R. Creating single-subject design graphs in Microsoft Excel™ 2007. Journal of Applied Behavior Analysis. 2009; 42:277–293.

Hanley G. P. (2010). Toward effective and preferred programming: A case for the objective measurement of social validity with recipients of behavior-change programs. *Behavior Analysis in Practice*.3,13–21.

Martin G, Thompson K, Regehr K., (2004). Studies using single-subject designs in sport psychology: 30 years of research. *The Behavior Analyst.* 27, 263–280.

Vanselow, N. R., & Bourret, J. C. (2012). Online interactive tutorials for creating graphs with Excel 2007 or 2010. Behavior analysis in practice, 5(1), 40.