



## School of Education

EDST5101: Interventionist and Experimental  
Design and Analysis

Semester 1, 2018

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### Student Learning Outcomes

Outcome	Assessment/s
1 Analyze data by applying statistical techniques	2, 3
2 Design an experimental study	3
3 Interpret results of quantitative research	1, 2, 3
4 Report the method and results of an experiment	2, 3

### Program Learning Outcomes

	Assessment/s
<b>1 Advanced disciplinary knowledge and practices</b> Demonstrate an advanced understanding of the field of education as it relates to their specialist area of study, and the ability to synthesize and apply disciplinary principles and practices to new or complex environments.	1, 2, 3
<b>2 Research-based learning</b> Demonstrate an in-depth understanding of research-based learning and the ability to plan, analyse, present implement and evaluate complex activities that contribute to advanced professional practice and/or intellectual scholarship in education	1, 2, 3
<b>3 Cognitive skills and critical thinking</b> Demonstrate advanced critical thinking and problem solving skills	1, 2, 3
<b>4 Communication, adaptive and interactional skills</b> Communicate effectively to a range of audiences, and be capable of independent and collaborative enquiry and team-based leadership	3
<b>5 Ethical and responsible professional practice</b> Demonstrate an advanced capacity to recognise and negotiate the complex and often contested values and ethical practices that underlie education	1, 2, 3

### AITSL Professional Teaching Standards (Proficient, Highly Accomplished, Lead)

Standard	Assessment/s
5.1.2	





### **Assessment 1: Pre-course assessment, Online quiz (7 items)**

Understanding different types of research design

- < This online quiz is designed for students to get familiarized with basic statistical terminology and different types of research design.
- < Step 1. Read Chapter 1 of the textbook, Field, A. (2013). *Discovering statistics using SPSS*. London; Sage.
- < Step 2. Take an online quiz in Moodle.
  - o This quiz will be available in Moodle between March 15<sup>th</sup> and 30<sup>th</sup>.
  - o Quiz will consist of multiple-choice items (7 items).
  - o Deadline to complete the online quiz is March 30<sup>th</sup>.

### **Assessment 2: Data Analysis**

Exercise and writing of statistics results

- < A set of data and research questions will be given to students.
- < Students will produce and write results based on SPSS outputs (t-tests and ANOVA tests).
- < Lecturer will provide assistance while students are analyzing the data in class.
- < Tasks to be completed are within what has been covered in this course.

### **Assessment 3: Research Report**

- < Students will be presented with the data but not research questions. Students will need to formulate a set of research questions, using the data provided.
- < Students will analyse the data using the statistical techniques covered in this course.
- < The format of this research report should be:
  - o Research questions to be addressed in the analysis
  - o Conduct and present descriptive statistics (e.g., means and standard deviations)
  - o Conduct and present inferential statistics (e.g., t-test, ANOVA)
- < Description and interpretation of the data should be accurate, appropriate, concise, and readable.
- < Results should be presented in a couple of tables (in the APA style: American Psychological Association).
- < Students will be asked to write the results using a format that is similar to the results sections of a journal article (take a look at journal articles that use experimental design methods).





