

# EDT 858-618

## Research and Evaluation of Educational Technology

In this course, students investigate methods for determining if a given technology contributes to a stronger educational experience. Reviewing the body of research on educational technology, students will probe the merits of different methodologies. Students learn how to develop good research questions and choose methodologies to conduct their own investigations.

### Course Goals

- Comprehend the major trends and questions in educational research, with a focus on technology
- Use data mining and business intelligent techniques to spot trends in data and implement continuous improvement
- Read common statistical terms and measures (e.g. ANOVA)
- Use digital tools for analyzing data (spreadsheets, SPSS, SQL databases)
- Use digital tools for visualizing and reporting numerical information
- Design measures to evaluate the success of technology initiatives
- Implement online surveys
- Read and evaluate qualitative educational research:
  - Ethnographic approaches
  - Interviews
  - Action research and design research
  - Conversation and discourse analysis
  - Mixed methods

### Required

All readings available on Moodle or as an eBook from the Swirbul Library.

**Instructor**

Aaron Chia Yuan  
Hung

**Email**

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**Office Hours**

Alumnae Hall 234  
Mon 2-3:30 PM  
Tues 4-6 PM  
(ONLINE)

Wed 1-2 PM  
(ONLINE)

**slack**

#research

## Class Sessions

date	venue	topic	reading(s)	assignments due
Jan 28	NEX*378	Introduction	Syllabus (this page) Grading Scheme Progress Report (shared with your Adelphi student email by January 15th)	Create a CITI account and Mendel ey account.
Feb 4-Feb 10	Online	Inquiry	Babione (2015) Developing a concept of practitioner teacher inquiry. Babione (2015) Developing a concept of practitioner teacher inquiry. Harter (2006) The challenge of framing a problem. Heck (2006) Conceptualizing and conducting meaningful research studies in education.	
Feb 11	NEX*378	Reading Research I	Hill (2010) Educational research: The challenge of using an academic discipline.	
Feb 18-Feb 24	Online	Reading Research II	Identify a topic and read an article from the Review of Research in Education.	Set up your Literature Map
Feb 25	NEX*378	Reading Research III	Ng'ambi and Bozalek (2016) Learning with technologies in resource-constrained environments. Wright and Parchoma (2011) An actor-network theory critique of affordances in research on mobile learning.	
Mar 4-Mar 10	Online	Ethics	Babione (2015) Guidelines for collecting data. CITI Training.	
Mar 11-Mar 17		Spring Break		IRB Certification
Mar 18-Mar 24	Online	Research Methods I	Wang and Park (2016) Reviewing the literature. Wang and Park (2016) Research questions and methods.	Literature Map (draft)

date	venue	topic	reading(s)	assignments due
Mar 25	NEX*378	Research Methods II		
Apr 1-Apr 7	Online	Research Methods III	Wang and Park (2016) Steps of quantitative and qualitative research designs.	Literature Map (final)
Apr 8	NEX*378	Data Collection		
Apr 15-Apr 21	Online	Data Analysis I		Literature Review (draft)
Apr 22	NEX*378	Pilot Study		Present sample data from your pilot study
Apr 29-May 5	Online	Data Analysis II		
May 6	NEX*378	Presentation		Present the preliminary findings of your project
May 13	Online	The End		<b>Literature Review (final)</b> <b>Pilot Study</b> <b>Research Report</b>

## Research Paper

### IRB Certification

To ensure that you follow proper ethical procedures while working with human subjects, you will acquire IRB certification through the Office for Human Research Protections.

### Literature Map

The literature map is a visual organizer that shows the connections between different readings. You can create this organizer on a spreadsheet or a tool of your own choosing. You will be evaluated on how easy it is to understand and how comprehensive it is.

### Literature Review

The literature map is a visual organizer that shows the connections between different readings. You can create this organizer on a spreadsheet or a tool of your own choosing. You will be evaluated on how easy it is to understand and how comprehensive it is.

## **Pilot Study**

You are assessed on the organization and execution of your research proposal. You will be asked to share the way you collected and organized the data, and include any artifacts you used, such as how you organized their spreadsheets or field notes, how you labeled your data, and how you sorted them.

## **Research Report**

You have to complete a preliminary report based on your pilot study data. The report should have the major components of a formal research study, including a review of literature (which you will have completed), a discussion on design and methods, data analysis, discussion, and preliminary conclusions and directions for future research. These will be presented to your class in the final session.

## **Participation**

This is a graduate course where you are expected to complete weekly readings and fully participate in discussions in class and on Moodle. In order for the discussion to flow smoothly online, you should respond to the forum discussion by the dates noted on the syllabus, and spend the remainder of the week responding to what your peers have posted. Your responses to your peers should be thoughtful, critical and substantive. Your participation grade will be based on the timeliness and quality of your posts, your responses to your peers, and any other activities that might be associated with the week. Your participation grade is given out on a weekly basis. You can track your participation grade through your Progress Report. Late or missed points cannot be made up, although you can earn points through Power Ups. Any participation posted two days after the deadline cannot be made up. Participation points can only be made up through doing bonus assignments through Power Ups.

## **Power Ups**

Power Ups give you a chance to earn extra credit points. Specific ways that you can earn (and lose!) points are described in the Progress Report. Power Ups are translated into levels. The higher the level, the more Power Ups you will need to level up (like in a video game). You can get as much as five extra points added to your final grade if you reach Level Five. Power Ups are given at the instructor's discretion.

## **Grades**

IRB certification.....	10%
Literature Map.....	10%
Literature Review.....	15%
Pilot Study.....	20%
Research paper.....	30%
Participation.....	15%

## **University Statement on Academic Integrity**

You are expected to behave with the highest level of academic integrity. Cheating and other forms of dishonesty will not be tolerated and will result in the proper disciplinary action from the university. Classroom behavior that interferes with the instructor's ability to conduct the class or ability of students to benefit from the instruction will not be tolerated. All beepers and cellular phones should be turned off while class is in session. You are expected to come to class prepared – this means having read and studied the assigned chapters before class. By having prepared in this manner, you will be able to maximize your time spent in class.

Adelphi University demands the highest standards of academic integrity. Proper conduct during examinations, the proper attribution of sources in preparation of written work, and complete honesty in all academic endeavors is required. Submission of false data, falsification of grades or records, misconduct during examinations, and plagiarism are among the violations of academic integrity. Students who do not meet these standards are subject to dismissal from the University.

## **Turnitin**

Adelphi University has a license agreement with Turnitin.com, a service that helps prevent plagiarism from Internet resources. All written assignments in this course will be submitted through and reviewed by Turnitin.com. Please see Adelphi's tips for students on preventing plagiarism and student instructions for Turnitin.com for more information.

## **The Writing Center**

If you would like assistance with writing, revising or editing your papers, utilize the resources of The Writing Center. The center is open to any student, of any ability, who wants to improve his or her writing process. The Writing Center is in Earle Hall, Lower Level, (516) 877-3145, email: [writingcenter@adelphi.edu](mailto:writingcenter@adelphi.edu).

## **University Statement on Academic Assistance for Students with Disabilities**

If you have a disability that may significantly impact your ability to carry out assigned coursework, please contact the Student Access Office (SAO) at 516-877-3806 or send an email to [sao@adelphi.edu](mailto:sao@adelphi.edu). The staff will review your concerns and determine, with you, appropriate and necessary accommodations. Please allow for a reasonable time frame for requesting ASL Interpreters or Transcription Services.

## **Student Course Evaluations**

During the last two weeks of the class, you will receive notification, via email and eCampus, that the course evaluation is available for your input electronically. Availability will end at the start of the final examination period. Your feedback is valuable and I encourage you to respond. Please be assured that your responses are anonymous and the results will not be available to the instructor until after the end of the semester and therefore after course grades have been submitted.

## Use of Student Work

All teacher education programs in New York State undergo periodic reviews by accreditation agencies and the state education department. Additionally, all Adelphi University faculties have their work peer-reviewed regularly including reviews of their teaching performance. For these purposes, samples of students' work are made available to those professionals conducting the review. Student anonymity is assured under these circumstances. If you do not wish to have your work made available for these purposes, please let the professor know before the start of the second class. Your cooperation is greatly appreciated.

\*\*New York State requires 15 hours of instructional time for each credit hour. In this 3 credit course, the required 45 hours consists of 30 instructional hours (27.5) clock hours) of in-class instruction and 15 instructional hours (15.0) clock hours) of extended instruction. Extended instruction refers to "outside of the classroom" learning, the delivery and content of which will be determined by the instructor.

\*\*In this course, extended instruction will consist of the following. In this course, extended instruction will be offered through Moodle discussion board. Students will be asked to view a short video clip and then engage in discussion via a Moodle discussion board. Several questions will be posed to the students in order to engage in thoughtful debate. The instructor will monitor the responses and actively participate in the class discussion. Total Moodle Time: 10 hours.