



## Undergraduate Summer Research Academy

### Project Details

<b>Research Project Title:</b>	<b><u>Project 1</u></b> Secondary English Learners Multimodal Experience in a Digital Story Telling Project
<b>Research Professor:</b>	Dr. Ying <b>Zhang</b> , Education Department, SESS
<b>Research Project Title:</b>	<b><u>Project 2</u></b> Technology Applications in Data Collection in Special Education
<b>Research Professor:</b>	Dr. Vicki <b>Donne</b> , Education Department, SESS
<b>Research Project Title:</b>	<b><u>Project 3</u></b> What makes a premium (un)attractive in influencing the consumer's decision to preorder a video game
<b>Research Professor:</b>	Dr. Chad <b>Wertley</b> , Communication Department, SCIS
<b>Research Project Title:</b>	<b><u>Project 4</u></b> Does Context Matter? A Hands-On Approach to Learning Data Analytics
<b>Research Professor:</b>	Dr. Diane <b>Igoche</b> , Computer & Information Systems Department, SCIS

Application Deadline  
**February 20, 2019**

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## **Project 1 of 4**

**Research Project Title:** Secondary English Learners Multimodal Experience in a Digital Story Telling Project

**Research Project Summary:** This study aims to investigate how digital storytelling affects English learners' (ELs') literacy development, awareness of their own culture and identity. Specifically, the research asks the following questions: 1. What does learning look like in a digital storytelling project? 2. How does literacy development occur in the project? 3. How does digital storytelling create awareness of the students' language, culture, and identities?

In order to answer research questions, researchers will collect data, which includes the participant observation with field notes, audio and video recordings of the session scenes, formal and informal interviews with teacher and EL students, teacher's lesson plans, student final digital product, and other student work connected to the project. Researchers will analyze the data following the data collection. The analysis will include the following steps: 1. Select video and audio data based on research questions (as transcribing every single minute of the video and audio data is not realistic); 2. Code the data based on research questions; 3. Generate themes to answer research questions. The data analysis will occur in Summer, 2019.

**Skills Required:**

1. Excellent English communication skills, including both oral communication and written communication skills.
2. Basic knowledge in educational psychology, sociology, or other related humanity fields.

**After successful completion, students will be able to:**

1. Identify the characteristics of qualitative research.
2. Describe the nature of qualitative data, and identify different data collection strategies in qualitative research, including interview, observation, and artifacts.
3. Practice data analysis techniques such as coding and finding themes.
4. Describe the nature of a literature review.

**Research Professor:** Dr. Ying Zhang, Education Department, SESS



## **Project 2 of 4**

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**Research Project Title:** Technology Applications in Data Collection in Special Education

**Research Project Summary:** Some of the obstacles to collecting data on the behavioral and academic performance of K-12 students with disabilities are the consistency of collection and time involved in taking and analyzing data. Advances in technology applications may remove these barriers. This research project seeks to investigate if and how special education faculty incorporate technology in instruction of pre-service teachers in data collection to assess mastery of behavioral and instructional objectives. In addition, it examines the extent to which student teachers are using technology applications in data collection in their student teaching placements. To address these questions, survey methodology will be used. This project involves identifying and experimenting with technology applications of data collection, developing an online questionnaire, piloting the instrument, analyzing the pilot information, and proposing changes to the instrument.

**Skills Required:**

1. Technology skills
2. Coursework in special education
3. Organizational skills

**After successful completion students will be able to:**

1. Develop and revise a survey instrument based on literature and pilot data.

**Research Professor:** Dr. Vicki Donne, Education Department, SESS



## **Project 3 of 4**

**Research Project Title:** What makes a premium (un)attractive in influencing the consumer's decision to preorder a video game

**Research Project Summary:** The video game industry embraces the use of premiums to incentivize consumers to preorder games. A premium is an added product or service that the consumer receives for free as a "gift" for purchasing the target product. The majority of "AAA" video games (i.e. games produced for the mass market) offer a preorder premium. These incentives run the gamut from wearables (e.g., shirts, and hats), to collectibles (e.g., action figures, and artwork), to in-game bonuses (e.g., extra missions, and characters). Despite the prevalent use of premiums to entice a consumer to preorder, little research has been conducted exploring what characteristics of the premium influence the purchase decision.

Overall, the research suggests that attitudes towards the offer and brand are minorly influenced by immediacy, value, and fit. What is most interesting from the research is the effect that "attractiveness of the premium" has on consumer attitudes and behavior, such that the more attractive the premium offer, the less important immediacy, value, and fit are, and the more likely consumers will purchase the product. Unfortunately, the literature does not adequately explain "attractiveness," and the studies lack a richer understanding of what makes the premium (un)attractive. The purpose of this study is to explore which premium offerings are more "attractive" for gamers, and what characteristics of the premium make them more "attractive."

**Skills Required:**

1. Completed a Research Methods course
2. Has an interest in Marketing
3. Has an interest in gaming (a plus, but not required)

**After successful completion, students will be able to:**

1. Experience conducting a research study from beginning to end
2. Potential conference paper at a national or regional conference
3. Potential publication in an academic journal

**Research Professor:** Dr. Chad Wertley, Communication Department, SCIS



## **Project 4 of 4**

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**Research Project Title:** Does Context Matter? A Hands-On Approach to Learning Data Analytics

**Research Project Summary:** This summer research project is two-fold. This is a hands-on experiential research project that focuses on exposing a learner to data analytics through the process of learning by doing! The student researcher who has never conducted data analytics research will assess two text classification tools to learn about data analytics. The student researcher will conduct novel research on the use of two (2) text classification tools used for opinion mining. The project will explore a use case to highlight the differences between sentiment analytics and semantic analytics-contextual semantic search. Sentiment Analytics is the process of understanding and classifying an opinion about a given subject from written or spoken language. Contextual Semantic Search (CSS) is an intelligent smart search algorithm that analyzes text based on a given concept using various meanings.

The research project will make two contributions to the field. The researcher will report on the experiences of the student researcher conducting data analytics research and learning about data analytics. Secondly, the student researcher will propose the best classification tool that can be used to analyze web data to assist an organization in drawing actionable insights.

### **Skills**

1. Familiar with APA Format for publishing scholarly articles
2. Completed Statistics course or equivalent
3. Completed 3 of the 4 required communications skills courses (B or better)
4. Optional: Completed a computer programming course or have an understanding of HTML

### **After successful completion, students will be able to:**

1. Demonstrate proficiency in data collection, cleansing, and analysis skills needed for Data Analytics/Science research;
2. Explain the difference between contextual semantic search and sentiment analytics for deriving actionable insights, using real data;

**Research Professor:** Dr. Diane Igoche, Computer & Information Systems Depart-