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## An Interdisciplinary Experience

Reyna Vergara  
revergara@muw.edu

Michael Dodson  
Mississippi University for Women, tmdodson@muw.edu

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# An Interdisciplinary Experience

*Dr. Reyna Vergara and Mr. Michael Dodson*

## Introduction

“Cacao and Chocolate: A Powerful Legacy,” organized during Hispanic Heritage Month in 2023, explored the legacy of cacao and chocolate in Latin America from various perspectives. This event was then expanded into the Spanish classroom and further mentorship. Dr. Vergara and Mr. Dodson aim to showcase interdisciplinary collaboration and research integration through student involvement, blending faculty-led research components with experiential learning activities. The project has several components, but overall, it could serve as a model for possible ways to integrate research and interdisciplinary collaboration.

## Part I: Faculty-Led Research Components

*Alyssa Vernon, Public History Major*

Ms. Vernon's project focused on research within the theme of cacao and chocolate. She applied and was accepted as a Summer Scholar. Under Dr. Vergara's advisement for five weeks (135 hours), she completed her Special Topics course "Cacao and Culture in Latin America," earning 3 credits. The course was structured around a syllabus and a tentative timeline. Her final outputs included an annotated bibliography, a research poster, and a library display. She also presented her findings at the September 21st event alongside her peers at the Culinary Arts Institute.

Ms. Vernon provided weekly updates which she uploaded to a shared drive, maintaining a log of her hours, a summary of key accomplishments, detailed reports, and the articles and summaries related to her research. These documents facilitating targeted feedback and support from her instructor. Weekly face-to-face sessions with Dr. Vergara focused on progress review, resource guidance, and exploration of topics related to her research.

Dr. Vergara guided Ms. Vernon in utilizing library resources and, building upon the Summer Scholar programming, discussed digital tools like library databases, tools for managing her research, poster design, and encouraged her to become familiarize with other library support systems in place, like personal consultations with librarians.

Ms. Vernon went beyond her coursework to create a library display, with financial and logistical support from the library staff, particularly Ms. Hillary Richardson and Ms. Anita Pintado. The display, which stood at the Fant Memorial Library from September 15-October 15, visually complemented her research and was featured during the Hispanic Heritage Month events.

Ms. Vernon's annotated bibliography was divided into four main sections: Health and Medical Connections; The Columbian Exchange; Indigenous and European Use of Cacao and Chocolate;

and Mexican, Latin American, or Spanish Recipes. Her findings provided a comprehensive overview of the historical and cultural legacy of cacao and chocolate, emphasizing its significance in medicine, economy, and culinary traditions.

### Ethan Wilkins, Chemistry Major

Mr. Wilkins conducted research on the Columbian Exchange, focusing on the impact of cacao and chocolate in the New and Old Worlds, as well as their health and medicinal connections. Under the guidance of Mr. Dodson, he worked on this project as an extracurricular activity. He began his research over the summer with Mr. Dodson guiding him through the annotated bibliography process. He was able to share some of his sources with Ms. Vernon. In September, he collaborated with his other peers to refine his presentation and received valuable feedback. A trial run of his PowerPoint presentation allowed him to make adjustments based on advice from Mr. Dodson, Dr. Vergara, and his peers. Emphasis was placed on communicating effectively to a non-expert audience. Demonstrating adaptability and receptiveness, Mr. Wilkins continuously improved his presentation. He seemed commitment to clear and engaging communication.

Mr. Wilkins' presentation for the Hispanic Heritage Month event was titled "Chocolate: The Future of Medicine?" It focused on the historical and medicinal aspects of chocolate. The presentation covered the following components: Pre-Hispanic Usages of Cacao and Chocolate; European encounter and Spread; Medicinal Influences in Europe; Modern Research on Cacao; Cardiovascular Effects; Immunomodulatory Properties; Prevention of Tryptophan Breakdown; and Respiratory Effects. Overall, Mr. Wilkins presentation provided an overview of the historical and medicinal significance of cacao and chocolate, highlighting its potential in medicine. His work complemented Ms. Vernon's research by providing a more in depth scientific and medicinal perspective on the cultural, historical, and scientific legacy of cacao and chocolate.

## Part II: Experiential Learning

### Olivia Eubanks: Spanish Minor - Cultural Documentation

Ms. Eubanks' involvement, guided by Dr. Vergara, focused on cultural documentation through interviews, resulting in a booklet that complemented the research components led by Ms. Vernon and Mr. Wilkins. While Ms. Vernon's work provided a historical and cultural overview of cacao and chocolate, and Mr. Wilkin's research explored the scientific and medicinal aspects, Ms. Eubank's booklet offered a personal and contemporary perspective, showing how cacao and chocolate are integrated into the lives and traditions of heritage speakers.

Throughout the month of July, Ms. Eubanks and Dr. Vergara engaged in weekly Zoom meetings to discuss progress and align efforts, supplemented by regular email correspondence. This collaboration ensured that Ms. Eubank's work was well-integrated with the broader project objectives, while maintaining cultural sensitivity and respect when interacting with the participants. Ms. Eubank's meticulous approach to transcription and her use of digital tools like

QR codes and Canva for media accessibility and booklet compilation demonstrated her commitment to presenting the information in an engaging and informative manner.

Ms. Eubank's work played an important role in enhancing the project's overall narrative. By capturing personal stories, recipes, and cultural expressions surrounding cacao and chocolate, she highlighted the interconnectedness of cultural insights with academic research. She complemented and enriched the project's exploration of the topic by adding depth and contemporary relevance.

#### [Reggi Pech: Graphic Design Major – Creative Design](#)

Mr. Pech's responsibility for creating the visual components, such as the research poster, booklet, and event flyer, was integral to communicating the project's themes effectively. He ensured that the visuals were culturally sensitive and aligned with the historical and thematic context of cacao and chocolate in Latin America.

His collaboration with team members, particularly Ms. Vernon and Ms. Eubanks, ensured consistency and coherence between the visual elements and the research content. Mr. Pech's ability to incorporate feedback from both Mr. Dodson and Dr. Vergara, while also contributing his expertise in color theory and design, enhanced the overall presentation of the project. His work demonstrated his creative talents and the importance of visual communication in academic research.

#### [Erik Vasquez-Diaz: Culinary Arts Major – Culinary Demonstration](#)

Mr. Vasquez-Diaz's culinary demonstration on chocolate, guided by his instructor, Chef Mary Hawkins, provided a practical exploration of the themes researched by Ms. Vernon and Mr. Wilkins. Mr. Vasquez-Diaz's presentation brought these concepts to life through the culinary arts. He educated the audience on the diverse uses of chocolate, from savory dishes to sweet desserts, echoing the variety found in traditional recipes. His demonstration not only complemented Ms. Vernon's academic findings that traditional food and drink recipes with cacao or chocolate can have distinct differences in various parts of Latin America and Spain, but also offered a sensory experience. Overall, Mr. Vasquez-Diaz's contribution added an engaging element to the project, enhancing the comprehensive understanding of the theme.

#### [Hailey J. McCool, Family Science Major - Program Evaluation and Data Collection.](#)

Ms. McCool's role in the project, under Dr. Cecilia "Cecy" Brooks' guidance, focused on evaluating the impact and effectiveness of the program as part of the Hispanic Heritage Month activities. Her work involved developing and administering a Qualtrics survey to assess participants' experiences and knowledge gained from the events. This evaluation component was crucial for understanding the program's success.

As the undergraduate research assistant of Dr. Brooks, Ms. McCool assisted in the development and data collection process for the grant reporting portion of the program. Dr. Brooks is an assistant professor in the family science program, and Ms. McCool was selected to participate

in this data collection process because her Summer Scholar's project experience was focused on facilitating family life education programming.

Under the guidance of Dr. Brooks, Ms. McCool was first tasked with creating an online Qualtrics survey using the Mississippi Humanities Council program evaluation form that is provided to all grant awardees. The questions related to grantor awareness were kept with small word modifications to fit the Hispanic Heritage Month program.

Ms. McCool then tested the reliability of in-depth questions regarding the quality of the program and knowledge acquired because of participating in the program events. The goal of these questions was to identify aspects of the program that were most liked among participants. Dr. Brooks developed the questions based on the activities for the week-long program and Ms. McCool uploaded and shared the questions via Qualtrics with peers.

Since the questionnaire was focused on assessing the entire program, Ms. McCool was tasked with attending each session and soliciting participation in the survey by ensuring the QR code was working for those in attendance and had paper questionnaires for those who preferred to complete the survey without using mobile data.

Ms. McCool was also tasked with assisting Dr. Brooks' Cultural Discussion and Q&A session on September 22nd at the Fant Memorial Library. During the discussion, she walked around and ensured participants understood the questions and were able to complete their cultural competency self-assessment. Upon completion of the session, she collected the forms for future analysis.

Ms. McCool's participation has provided her with additional knowledge in survey question reliability and uploading questions to the Qualtrics system. She has also acquired a deeper understanding of creating meaningful assessments that can provide the feedback necessary to strengthen future educational programming and activities.

## Part III: Classroom Integration & Further Mentorship

### Dr. Vergara's Application

FLS 201, Spanish III, and FLS 202, Spanish IV

For their intercultural assessment, students either attended sessions and wrote a reflection essay or analyzed Ms. Vernon's annotated bibliography along with Ms. Eubanks' booklet. For this second option, they were tasked with synthesizing the insights from both, the cultural narratives and historical perspectives, examining how personal stories in the booklet complemented or illuminated the historical information in the annotated bibliography. They then reflected on what this could potentially revealed about the cultural and historical aspects of cacao and chocolate in Latin America.

FLS 311, Survey of Hispanic Literature I, and FLS 312, Survey of Hispanic Literature II

*FLS 311:* Dr. Vergara's students explored the Columbian Exchange using the research by Ms. Vernon and Mr. Wilkins. Dr. Vergara aimed to provide historical context before delving into

some of the authors from the colonial era. After an initial overview, she invited Mr. Wilkins to share his research, offering students a deeper understanding of the topic. Students were then tasked with reading an assigned article on the Columbian Exchange and presenting their findings to their peers. These presentations aimed to foster a comprehensive grasp of the subject and its historical impact. Additionally, students were encouraged to find and present over another publication related to their specific interests within the topic, such as tracing the journey of sugar during the exchange. They were also required to take notes on their classmates' presentations, as this information would be part of the content reviewed for their final assessment.

*FLS 312:* Dr. Vergara integrated two of the authors discussed during the key note speaker's presentation for the Hispanic Heritage event. Dr. Margarita Vargas' research wrapped up the day of presentations on September 21<sup>st</sup> at the Gordy Honors College forum. Her presentation was titled "Transforming Traditional Feminine Spaces in El eterno femenino, "La muñeca menor," and Como agua para chocolate." Focusing on the 'Powerful Legacy' part of our event's title, "Cacao and Chocolate: A Powerful Legacy," Dr. Vargas navigated texts by Rosario Castellanos, Rosario Ferré, and Laura Esquivel, emphasizing these authors' remarkable ability to transform spaces traditionally assigned to women and viewed as 'less than.' Using Dr. Vargas' research as a point of departure, students in Dr. Vergara's class read, analyzed, and discussed Rosario Castellano's essay, "Y las madres que opinan?" (What is the Mother's Opinion?) and Rosario Ferré's "La muñeca menor" (The Youngest Doll). They explored themes of feminism, identity, and societal norms.

#### [Mr. Dodson's Continued Mentorship](#)

In addition to his research and presentation, Mr. Ethan Wilkins continued to collaborate with Mr. Dodson post-event, resulting in their co-presentation at the Association of Science Teacher Education (ASTE) Annual Conference in New Orleans, LA, held on January of 2024. Most of the funding for this conference was provided through the Ina E. Gordy Honors College's Funds to Support Research Related Activities. Their poster highlighted the benefits of interdisciplinary learning, emphasizing the integration of STEM and Humanities to create impactful educational experiences. This opportunity allowed Mr. Wilkins to further develop his science communication skills and engage with educators from various universities.

During the preparation stages for the conference, Mr. Wilkins explored concepts such as autoethnography and positionality, which were integral to his research and presentation. These tools and resources, provided by Mr. Dodson, enhanced his understanding of qualitative research and allowed him to reflect on his own experiences and perspectives within the context of his study. Overall, Mr. Wilkins exceeded expectations by not only contributing to the Hispanic Heritage Month project but also by extending his involvement to a professional conference.

## Reflection: Academic Excellence

The model presented in this proposal aligns with the W's priority of academic excellence, by providing a comprehensive educational experience, and preparing students to be lifelong learners and contributing members of today's global society.

This model encourages interdisciplinary collaboration, bringing together students and faculty from various academic fields. This collaboration reflects academic excellence by providing students with a well-rounded understanding of a complex topic from multiple perspectives.

The project is a combination of research and experiential learning, with students investigating the topic from their area of expertise. This aligns with academic excellence as it fosters critical thinking, analytical skills, and the ability to synthesize information from diverse sources.

## Conclusion

By integrating diverse disciplines, this initiative not only enriches the educational journey of students but also prepares them for the multifaceted challenges of their global world. The involvement of faculty and students in collaborative research and experiential learning further underscores the commitment to creating a dynamic and inclusive learning environment. Mr. Dodson's acceptance as a Provost Fellow for the Spring of 2024 serves as an example that this interdisciplinary model can be integrated in various ways. His project, "Creating an Edible Campus and Creating an Interdisciplinary Experience," aims to mentor students from various departments, including languages, history, science, culinary, and art, to work collaboratively, thereby extending the interdisciplinary approach beyond STEM. Dr. Vergara and Mr. Dodson anticipate that this interdisciplinary approach will continue to evolve, offering new opportunities for innovation, discovery, and personal growth. They believe in the potential of this model to inspire others and to contribute to the broader discourse on the importance of interdisciplinary education in the 21st century.