



Georgia Gwinnett College Teaching, Learning, and Research  
Symposium 2022

January 12 – 13, 2022

Co-hosted by:

Business, Economic, & Applied Research Center (BEAR)  
Center for Teaching Excellence (CTE)

## Welcome

Welcome to the second annual Georgia Gwinnett College Teaching, Learning, and Research Symposium. It is undeniable that the last two years have been a tumultuous time across the world. As circumstances initially thought to be temporary settle into foreseeable permanency, the question becomes ‘how do we move forward?’ Although we must answer this question in every area of our lives, we gather together now to focus on ‘how do we move forward as educators, scholars, and researchers?’

This year’s theme of Aftermath: Higher Education in a pandemic-altered world, provides us with an opportunity to discuss moving forward. Over the span of two days we will share in a wealth of works featuring the latest pedagogical methods and new and evolving research. For the first time, we are joined by undergraduate researchers who are engaged in a variety of scholarly pursuits.

We are delighted to offer a hybrid format this year, and we look forward to engaging with everyone virtually and in-person. The Symposium continues to draw participants from all over the map. Again we have strong participation from multiple institutions in the state of Georgia, along with participants from Texas, Virginia, Maryland, Ohio, West Virginia, and Mississippi, and for the first time we have gone international with participants from Peru, India, Thailand, Japan, and the United Kingdom.

Enjoy yourself and enjoy each other as we spend time refreshing, renewing, and learning. We are glad that you are here, and we hope to see you again next year as we move forward together.

### Co-Chairs

**Dr. Reanna Berry**, Director of Accounting BEAR Center, Assistant Professor of Accounting

**Dr. Rolando Marquez**, Associate Director for CTE, Assistant Professor of Instructional Technology



## Welcome to the Second Annual GGC Research Symposium

---

### A message from the Business, Economic, and Applied Research (BEAR) Center

We at the BEAR Center are delighted to co-sponsor the second annual GGC Teaching, Learning, and Research Symposium which aims to inspire and disseminate scholarly research and practices across many fields of relevant research. We look forward to continuing to host this important event while increasing the scope and outreach to the research community. We want to express our sincere gratitude for all the faculty and administrative support we have received in planning this event as well as thank those who are participating as reviewers, presenters, and speakers.

The mission of the GGC BEAR Center, located within the School of Business Administration, is to support the local business community, the state of Georgia, and beyond with economic and business-related research and to provide outreach services including statistical and business-related training in the community. The BEAR Center is also committed to furthering the mission of the School of Business Administration by fostering continuous improvement in faculty scholarship and student engagement in original research.

The BEAR Center accomplishes its mission through various activities including publication of scholarly journal articles, research services, and the Symposium. We especially look forward to the Symposium each year because it is an opportunity for scholars to interact with scholars in a friendly and supportive environment. Conducting research is of great importance, but being able to share your research in an uplifting and collegial forum is also of great importance. We strive to ensure that the Symposium is a positive place for scholarly engagement.

We welcome you, and we look forward to hosting you now and in the future!

Warm regards,

Dr. Mark Partridge, BEAR Center Director

Dr. Reanna Berry, BEAR Center Director of Accounting, 2022 Symposium Co-Chair

Dr. P. Wesley Routon, BEAR Center Director of Undergraduate Research

Dr. Tracey Schaller, BEAR Center Director of Marketing



The mission of Georgia Gwinnett College's Center for Teaching Excellence is to provide programming that promotes the design and implementation of creative learning environments. The CTE supports the implementation of effective instructional practices, facilitates an environment of instructional experimentation, and enhances the skills needed to engage students in the learning process. We provide a community forum for the exchange of ideas and innovative instructional practices that lead to high levels of student learning.

CTE welcomes you to the Symposium. This symposium gives us an opportunity to share the knowledge we acquire about what's happening in the classroom both inside and outside, with peers. This allows us to expand the body of knowledge beyond the walls of classroom and toward an increasing world view.

We look forward to meeting you and making this symposium a memorable event.

Best regards,

Center for Teaching Excellence

## Reviewers

Dr. Benjamin Akins	Assistant Dean for Operations Associate Professor Legal Studies & Taxation	Georgia Gwinnett College
Charleata Battle	Doctoral Candidate	Georgia State University
Dr. Marvin Bontrager	Assistant Professor of Management	Georgia Gwinnett College
Dr. Christian Brown	Senior Economist Lecturer	Food and Drug Administration Johns Hopkins University
Dr. Alice Collins	Associate Professor of Marketing	Georgia Gwinnett College
Dr. Melinda Cline	Professor of MIS SBA Alumni Data Coordinator	Georgia Gwinnett College
Dr. Juliet D'Souza	Associate Professor of Finance	Georgia Gwinnett College
Dr. Anish Dave	Associate Professor of English	Georgia Southwestern University
Dr. Ashley Douglass	Assistant Professor of Accounting	Trinity University
Prof. Bettina Durant	Assistant Professor of Communication and Journalism	Georgia State University Perimeter College Division
Dr. Amy Fehl	Assistant Professor of Marketing	Georgia Gwinnett College
Dr. Jean Ferguson Ruffin	Assistant Professor	University of West Georgia
Dr. Mario Gonzalez- Fuentes	Associate Professor of Marketing	Trinity University
Dr. Rong Guo	Assistant Professor of Finance	Georgia Gwinnett College
Dr. Joie Hain	Assistant Professor of Marketing	Clayton State University
Dr. Phillip Hartley	Associate Professor of Marketing and Global Business	Georgia Gwinnett College
Prof. Dale Herndon	Visiting Assistant Professor of Finance	Georgia Gwinnett College
Dr. Ava Hogan- Chapman	Associate Professor of Teacher Education Clinical Experiences	Georgia Gwinnett College
Dr. Will Holmes	Associate Professor of Economics	Georgia Gwinnett College
Dr. Shoshana Katzman	Associate Professor of Biology	Georgia Gwinnett College
Mr. AJ Kooti	Instructor of Accounting	Georgia Gwinnett College

Dr. Robert Mason	Assistant Professor of Economics	Georgia Gwinnett College
Dr. Rolando Marquez	Associate Director CTE Assistant Professor of Instructional Tech	Georgia Gwinnett College
Dr. Karen McCarron	Assistant Professor of Accounting	Georgia Gwinnett College
Prof. Michael Morton	Associate Professor of Chemistry	Georgia Gwinnett College
Dr. Amy Mungur	Assistant Professor of Curriculum and Instruction	Georgia Gwinnett College
Dr. Anupam Nath	Assistant Professor of MIS	Georgia Gwinnett College
Dr. Grace Onodipe	Assistant Professor of Economics	Georgia Gwinnett College
Dr. Mark Partridge	Assistant Professor of Economics	Georgia Gwinnett College
Dr. Karen Perell- Gerson	Professor of Exercise Science	Georgia Gwinnett College
Ms. Kathleen Pinson	Assistant Professor of Accounting	Georgia Gwinnett College
Dr. Julianna Ramirez	Director Sustainability Centrum Pucp	Centrum Pucp, Pontificia Universidad Católica del Perú
Dr. P. Wesley Routon	Associate Professor of Economics and Quantitative Analysis	Georgia Gwinnett College
Dr. Carlos Ruiz	Professor of Management AACSB Faculty Coordinator and Diversity Coordinator	Georgia Gwinnett College
Dr. Atul Saxena	Professor of Finance	Georgia Gwinnett College
Dr. Tracey Schaller	Associate Professor of Marketing	Georgia Gwinnett College
Dr. Marieke Schilpzand	Associate Professor of Management	Georgia Gwinnett College
Dr. Thelma Sexton	Assistant Professor of Education	Georgia Southwestern University
Dr. Young Shim	Assistant Professor of Psychology	Georgia Gwinnett College
Dr. Stefan Sleep	Assistant Professor of Professional Sales	Kennesaw State University
Dr. Pingping Song	Associate Professor of Management	Georgia Gwinnett College
Dr. Andrew Stephenson	Associate Professor of Economics	Georgia Gwinnett College
Dr. Luis Torres	Associate Professor of Marketing	Georgia Gwinnett College

Dr. Hasan Uvet	Assistant Professor of Supply Chain Management	Georgia Gwinnett College
Dr. Kinga Varga- Dobai	Associate Professor of Literacy Education	Georgia Gwinnett College
Dr. Philip Vinson	Assistant Professor of Economics	Georgia Gwinnett College
Dr. Jay Walker	Assistant Professor of Economics	Old Dominion University
Dr. Mei Miranda Zhang	Professor of Finance/Internationalization Associate Provost Director of the Center for Teaching Excellence	Georgia Gwinnett College

### **Thank You Reviewers!**

Each submission was blind reviewed by two independent reviewers.  
Many thanks to those who served as a reviewer and utilized their expertise to  
ensure the academic rigor of the conference.

Thank you again.

## Schedule At-A-Glance

### January 12, 2022

#### **9:00 – 9:30 AM Opening Ceremony**

9:45 – 10:45 AM Session 1.1 Student Perceptions & Learning

9:45 – 10:45 AM Session 1.2 Diversity, Civic, and Cultural Awareness

9:45 – 10:45 AM Session 1.3 Business Practices

#### **11:00 AM – 12:00 PM Keynote Address**

12:00 – 1:00 PM Lunch Break

1:15 – 2:15 PM Session 2.1 Undergraduate Research I

1:15 – 2:15 PM Session 2.2 Societal Insights

2:30 – 3:30 PM Session 3.1 Undergraduate Research II

2:30 – 3:30 PM Session 3.2 Accounting Reflections

3:30 – 4:30 PM Special Session – SES Panel on Learning Communities

### January 13, 2022

8:30 – 9:30 AM Session 4.1 Pedagogical Resources and Assessments

8:30 – 9:30 AM Session 4.2 Global Citizenship and Social Responsibility

9:45 – 10:45 AM Session 5.1 Pedagogical Engagement and Support

9:45 – 10:45 AM Session 5.2 Storytelling, Writing, and Empathy

11:00 AM – 12:00 PM Session 6.1 Engagement and Community

11:00 AM – 12:00 PM Session 6.2 Mental Health and Motivation in Academia

11:00 AM – 12:00 PM Session 6.3 World Markets

12:00 – 1:00 PM Lunch Break

1:15 – 2:15 PM Session 7.1 Business and Economics

1:15 – 2:15 PM Session 7.2 Institutions, Markets, and Financial Considerations

1:15 – 2:15 PM Session 7.3 Diversity in Business

#### **2:30 – 3:00 PM Closing Ceremony**

The Special Session SES Panel is live in the Heritage Room in Kaufman Library.

All sessions are streamed live. Links appear below in the detailed schedule.

Presenters are live in the Stephens Family Forum for the following:

Sessions 1.1, 2.1, 3.1, 5.1, 6.1, and 7.1

The Opening and Closing Ceremonies and the Keynote Address will be streamed live in the Stephens Family Forum. Virtual viewing is available via links below.

All other Sessions are virtual only.



## **January 12, 2022 – Morning Schedule**

### **9:00 – 9:30 AM Opening Ceremony**

[Join Microsoft Teams Meeting](#)

Stephens Family Forum

*Join us virtually or view the broadcast of the virtual meeting in person*

Greetings from Symposium Co-Chairs Drs. Berry and Marquez  
Welcome from Georgia Gwinnett College Provost Dr. George Low

### **9:45 – 10:45 AM Session 1.1 Student Perceptions & Learning**

**Stephens Family Forum**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Ben Akins

Dr. P. Wesley Routon, Dr. Jay Walker  
Relative Age and Self-Perceived Skill Acquisition During College

Dr. Anish Dave  
Crisis-Induced Illumination: Focusing on Student Learning Above All

Dr. Kyle Huff  
Motivation Made SMART

Dr. Karen Perell-Gerson, Dr. Jeff Pasley, Dr. Caroline Hanson, Dr. Joshua Wludyga  
Student Perceptions of Behavior Change Intervention in Anatomy & Physiology

### **9:45 – 10:45 AM Session 1.2 Diversity, Civic, and Cultural Awareness**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Carlos Ruiz

Dr. Jean Ferguson Ruffin, Dr. Marsha Simon  
Creating Safe Spaces: Examining Teaching and Learning in a Doctoral Diversity Course through Reflective Assignments

Prof. Bettina Durant  
Rising Above the Aftermath Through the Lens of Civic Awareness: Let's Civic Awareness to Student Outcomes

Dr. Ava Hogan-Chapman  
Culturally Responsive Online Student Engagement During Covid

Dr. Marieke Schilpzand, Dr. Matthew Schmolesky, Dr. Patrick Ludolph  
Student and Faculty Perspectives on Critical Thinking: A Qualitative and Quantitative Analysis

**9:45 – 10:45 AM Session 1.3 Business Practices**

[Join Microsoft Teams Meeting](#)

Moderator: TBA

Dr. Anupam Nath

The Role of Context Variables in the Effective use of Social Computing in Organizations for Knowledge Management among Employees: An Empirical Study

Dr. Hasan Uvet, Lt. Col. John Dickens, Lt. Col. Aaron Glassburner  
Examining the Impact of Logistics Service Quality Dimensions on Customer Satisfaction

Dr. Stefan Sleep, Mr. Brent McCulloch  
Being Nimble in a World of No Absolutes: Faculty Coaching in Traditional and Virtual Environments

**11:00 AM – 12:00 PM Keynote Address**

[Join Microsoft Teams Meeting](#)

Stephens Family Forum

*Join us virtually or view the broadcast of the virtual meeting in person*

Introduction by Georgia Gwinnett College President Dr. Jann Joseph  
Address by Dr. Martha “Marti” Venn, Vice Chancellor for Academic Affairs,  
University System of Georgia



**12:00 – 1:00 PM Lunch Break**

**Lobby outside of Stephens Forum**

Boxed lunch provided. Registration badge needed to receive lunch.

Reminder, no food or drink in the Stephens Forum.

Lobby, 1230W, and 1211W available to sit and enjoy lunch with colleagues.

## **January 12, 2022 – Afternoon Schedule**

### **1:15 – 2:15 PM Session 2.1 Undergraduate Research I**

**Stephens Family Forum**  
[Join Microsoft Teams Meeting](#)

Moderator: Dr. P. Wesley Routon

Karri Blalock, Dr. Rebecca Cooper, Dr. Samantha Mrstik

Faculty Sponsor: Dr. Rebecca Cooper

The Development of Computer Simulations for Educator Preparation Programs and the Benefits for Teacher Candidates

Jennifer Nguyen, Dr. Ali Akdeniz, Dr. Chantelle Anfuso, Dr. Joshua Morris

Faculty Sponsor: Dr. Joshua Morris

Developing an At-home Chemistry Lab Using Everyday Household Items

Oluwatamilore Soyebó, Dr. Kamal Kakish

Faculty Sponsor: Dr. Kamal Kakish

Using AI to Customize Traditional Adaptive Learning Approaches to fit Individualized Student Needs

### **1:15 – 2:15 PM Session 2.2 Societal Insights**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Reanna Berry

Dr. Robert Mason, Dr. Marianne Mason

The Linguistic Hypergame of Police Interrogation: Rationality, Power, and Deception

Dr. Amy Fehl

Patriotic Thoughts Provoked by Certain Mortality Salience Triggers: A Potential Safeguard Against Existential Anxiety

Dr. Amanda Wilsker, Dr. Grace Onodipe, Dr. Mark Partridge

The Effect of Economic Understanding on Student Perceptions of Covid-19 Precautions

### **2:30 – 3:30 PM Session 3.1 Undergraduate Research II**

**Stephens Family Forum**  
[Join Microsoft Teams Meeting](#)

Moderator: Dr. P. Wesley Routon

Yazmeen Mayes

Faculty Sponsor: Dr. Laurence Sherr

Process of Improvising a Narrative Song: Creating an Interactive Workshop

Megan Price-Williams, Venessa Peart, Tyler Walker, Ayrton Paz Soldan  
Faculty Sponsor: Dr. Amy Fehl  
Predictors of COVID-19 Vaccine Acceptance in College Students

Hannah Holloway, Michaela Reed, Bethani Griggs  
Faculty Sponsor: Dr. Anish Dave  
Inter-departmental Discussion over Teaching a Grammar Course in a  
Small Public University: A Case Study

**2:30 – 3:30 PM Session 3.2 Accounting Reflections**      [Join Microsoft Teams Meeting](#)

Moderator: Dr. Grace Onodipe

Dr. Ashley Douglass, Dr. Amy Holmes  
Auditing from Home: The Impact of the COVID-19 Pandemic Transition  
to Auditing Remotely, and Advances in Technology

Dr. Karen McCarron, Dr. Alan Burstein  
Two Approaches to Increase Understanding in Introduction to Managerial  
Accounting

Mr. AJ Kooti, Mr. Vincent Louis, Lt. Emmanuel Adomako  
The Impact of Georgia's State Film Incentive program on Local School  
System Quality through ELOST revenues

**3:30 – 4:30 PM Special Session**      **Heritage Room in Kaufman Library**

Hosted by: GGC Student Engagement and Success (SES)

SES Panel on Learning Communities  
SES invites Symposium participants to join them for free!

## **January 13, 2022 – Morning Schedule**

### **8:30 – 9:30 AM Session 4.1 Pedagogical Resources and Assessments**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Rolando Marquez

Dr. Qing Shao, Dr. Zengjun Chen, Dr. Karen Perell-Gerson, Dr. Xiaoping Li,  
Dr. Lijun Pang

Practices to Engage Students in the Class Project in a Pandemic-altered  
World

Dr. Sherly Abraham, Dr. Sonal Dekhane

Open Educational Resources: Teaching Strategies and Student  
Perspectives

Dr. Shoshana Katzman, Dr. Jennifer Hurst-Kennedy, Dr. Alessandra Barrera,  
Dr. Jennell Talley, Dr. Elisabeth Javazon, Mary Diaz, Dr. Mary Beth Anzovino  
The Effect of Specifications Grading on Students' Learning and Attitudes  
in an Undergraduate Level Cell Biology Course

Dr. Pingping Song

Assessment with Online Tests vs. In person Test: Is LockDown Browser  
Effective?

### **8:30 – 9:30 AM Session 4.2 Global Citizenship and Social Responsibility**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Luis Torres

Dr. Luis Torres, Dr. Jun Wu

International Studies in a Virtual World

Dr. Julianna Ramirez, Dr. Kelly Rojas

Challenges of Social Responsibility Programs through Online Education:  
Improving My Store

Dr. Boyko Gyurov, Dr. Yupadee Panarach

A Virtual Classroom with an International Virtual Exchange

Dr. Colin Walker, Dr. Michael Black, Dr. Michael Savoie

Developing and Implementing a QEP focused on Experiential Learning in  
the Pandemic-Altered Environment of Higher Education

**9:45 – 10:45 AM Session 5.1 Pedagogical Engagement and Support**

**Stephens Family Forum**  
[Join Microsoft Teams Meeting](#)

Moderator: Dr. Ben Akins

Dr. Karen Perell-Gerson, Dr. Katherine Pinzon  
Experiential Learning Opportunities within the Classroom – Effects of  
COVID-19 Pandemic

Prof. Michael Morton  
The Design and Implementation of Mindful Doodling into an Organic  
Chemistry Course

Dr. Amy Mungur, Dr. Rebecca Cooper  
Navigating Perceived Learning Loss: Supporting Student Teachers in a  
Pandemic-altered World

**9:45 – 10:45 AM Session 5.2 Storytelling, Writing, and Empathy**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Tracey Schaller

Dr. Mario Gonzalez-Fuentes  
Digital Storytelling as a Pedagogical Tool in Marketing Education: Past,  
Present, and Future

Dr. Kinga Varga-Dobai  
Culturally and Emotionally Sustaining Literacy Practices in Teacher  
Education

Dr. Marvin Bontrager, Dr. Jay Marinar  
Views on Empathy and Leadership in Business Schools

Dr. Marsha Simon  
Back to the Drawing Board: Incorporating an Interactive Approach to  
Improve Writing in an Introductory Research Course

**11:00 AM – 12:00 PM Session 6.1 Engagement and Community**

**Stephens Family Forum**  
[Join Microsoft Teams Meeting](#)

Moderator: Dr. Ben Akins

Dr. Joie Hain, Dr. Anita Whiting  
Student Success through Community Engagement

Dr. Darryl Romanow, Dr. Nannette Napier, Dr. Melinda Cline  
A Flipped Classroom Approach to COVID: A Business Intelligence Skills  
Analysis

Dr. Melinda Cline, Dr. Tyler Yu, Dr. Mei Miranda Zhang  
Diversity: A Comparative Analysis of School of Business Admission and  
Graduation

**11:00 AM – 12:00 PM Session 6.2 Mental Health and Motivation in Academia**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Amanda Wilsker

Dr. Alice Collins, Dr. Amanda Wilsker  
It's Time to Talk Mental Health

Dr. Young Shim, Dr. Rebecca Eaker, Dr. Junkoo Park  
Mental Health Education and Changes in Level of Awareness and Stigma  
Regarding Mental Illness among College Students

Dr. Laura Oramas, Dr. Kimberly Griffin, Dr. Young Rae Shim, Dr. Hyesung Park  
Impacts of Pandemic-Related Academic Setting Changes on Achievement  
Motivation and Self-Efficacy in College Students

Ms. Kristina Lang  
Staying Grounded in the Academic Library: Contemplative Practices for  
Instruction Librarians

**11:00 AM – 12:00 PM Session 6.3 World Markets**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. S. Cathy McCrary

Charleata Battle  
Doctorpreneurs: The Rise of Medical Startups

Charleata Battle, Dale Herndon, Drew Huey, Scott Murray  
Pharmaceutical Expansion into Emerging Markets: Czech Republic

Dr. Juliet D'Souza, Mr. James D'Souza  
Cryptocurrency: Characteristics - Is It Here To Stay?

**12:00 – 1:00 PM Lunch Break**

**Lobby outside of Stephens Forum**

Boxed lunch provided. Registration badge needed to receive lunch.

Reminder, no food or drink in the Stephens Forum.

Lobby, 1230W, and 1211W available to sit and enjoy lunch with colleagues.

**January 13, 2022 – Afternoon Schedule**

**1:15 – 2:15 PM Session 7.1 Business and Economics**

**Stephens Family Forum**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Joie Hain

Dr. Jason Delaney

Cities and States: A Representative Expenditure Approach across  
Comparable Economic Units

Professor Dale Herndon, Professor Drew Huey, Mrs. Deepa Vivekanandan  
Cybersecurity Risk Profile Framework in the Context of Mergers and  
Acquisitions

Dr. Philip Vinson

Measuring the Effect of Government Spending Shocks on Consumption:  
A Factor-Augmented VAR Approach

Dr. Phillip Hartley, Dr. Brett Young, Dr. Jason Gordon

Engaged Guidance: Creating an Intra-governmental Entrepreneurship  
Ecosystem During a Pandemic

**1:15 – 2:15 PM Session 7.2 Institutions, Markets, and Financial Considerations**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Mark Partridge

Dr. S. Cathy McCrary, Dr. P. Wesley Routon

Pension Default Risk and Pension Plan Financial Reporting: An  
Empirical Examination

Charleata Battle

Navigating Institutional Voids & Institutional Structures in Emerging  
Markets

Dr. Will Holmes, Dr. Melinda Cline, Dr. Andrew Stephenson

The Impact of Information Technology Investment on Firm Survival: A  
Longitudinal Analysis of the American Freight Railroad Industry

Dr. Andrew Stephenson, Dr. Yvonne Ellis, Mrs. Simone Bewry

The Assessment of Civil and Criminal Penalties for Fraudulent Financial  
Reporting



**1:15 – 2:15 PM Session 7.3 Diversity in Business**

[Join Microsoft Teams Meeting](#)

Moderator: Dr. Carlos Ruiz

Dr. Steven Brown, I-Chun Lisa Chen, Dr. Keith Jackson, Dr. Alberto Asquer  
Examination of Student Perceptions of Gender Differences in Leadership  
and Leadership Education

Dr. Rong Guo  
How Gender and Race Diversity Affect Investment Strategy

**2:30 – 3:00 PM Closing Ceremony**

[Join Microsoft Teams Meeting](#)

Stephens Family Forum

*Join us virtually or view the broadcast of the virtual meeting in person*

Awards

Best in Track – SoTL Research

Best in Track – Non-SoTL Research

Best in Track – Undergraduate Research

Closing Remarks

Introduction by Georgia Gwinnett College President Dr. Jann Joseph

Remarks by Regent José Perez, University System of Georgia

Join us next year for GGC Symposium 2023!



# **Best in Track Award Winners**

## **Best in Track – SoTL Research**

### **Back to the Drawing Board: Incorporating an Interactive Approach to Improve Writing in an Introductory Research Course**

**Dr. Marsha Simon, Assistant Professor of Education Research,  
University of West Georgia**

## **Best in Track – Non-SoTL Research**

### **The Linguistic Hypergame of Police Interrogation: Rationality, Power, and Deception**

**Dr. Robert Mason, Assistant Professor, Georgia Gwinnett College  
Dr. Marianne Mason, Professor, James Madison University**

## **Best in Track – Undergraduate Research**

### **Predictors of COVID-19 Vaccine Acceptance in College Students**

**Megan Price-Williams, Undergraduate Student, Georgia Gwinnett College**

**Venessa Peart, Undergraduate Student, Georgia Gwinnett College**

**Tyler Walker, Undergraduate Student, Georgia Gwinnett College**

**Ayrton Paz Soldan, Undergraduate Student, Georgia Gwinnett College**

**Faculty Sponsor, Dr. Amy Fehl, Assistant Professor of Marketing,  
Georgia Gwinnett College**

# Proceedings of the 2022 Georgia Gwinnett College Teaching, Learning, and Research Symposium

## Abstracts (alphabetical by first author, then abstract title)

**Dr. Sherly Abraham, Associate Professor of Information Technology, Georgia Gwinnett College**

**Dr. Sonal Dekhane, Chair of Faculty and Professor, Information Technology, Georgia Gwinnett College**

### *Open Educational Resources: Teaching Strategies and Student Perspectives*

This presentation will focus on the use of open educational resources in an upper level ITEC course. The presentation will provide details on the resources, course design and pedagogical methods utilized to design and teach the course. This will include sharing examples of active learning approaches utilized based on constructivist learning theory and cooperative learning. The course materials were developed as part of the AFL grant awarded in spring 2019. The perceptions of students on the use of open educational resources were captured through surveys. The data will be analyzed the insights shared. The pre-pandemic perspectives of students will be compared to the post-pandemic perspectives to see if there were any significant differences in student perspectives.

**Charleata Battle, Doctoral Candidate, Georgia State University**

### *Doctorpreneurs: The Rise of Medical Startups*

Health care innovation delivery within the US health care sector has forever been changed by the global crisis caused by the coronavirus pandemic. Fortunately, physician engagement with entrepreneurship has been longstanding. Many frontline physicians have opted to become entrepreneurs and take on resolving for some of the critical healthcare innovation delivery challenges. The COVID-19 pandemic exposed layers of gaps within our fragmented and complex American healthcare systems due to years of stalled healthcare innovation delivery. The surge of medically complex patients overwhelmed our nation's healthcare systems overnight and contributed to making our national response to the global crisis even more challenging.

Through a qualitative multi-case study design, we seek empirical evidence to answer the research question: How do physician-entrepreneurs navigate medical startups through the mass commercialization process? We seek to theoretically advance effectuation theory of entrepreneurship as a decision-making framework that can be used by doctorpreneurs who found medical startups across medical devices, medical implants, physician services, technology platforms, medical staffing firms, artificial intelligence applications, venture capital investment firms for healthcare, and specialty physician practice groups.

This study examines 20 cases where doctorpreneurs founded medical startups and navigated their innovative healthcare ideas through the mass commercialization process. There are three expected

contributions towards knowledge accumulation on physician entrepreneurship, medical startups, and funding strategies: decision-making strategies, quality and meaning of lived experiences of physician entrepreneurs, and exclusive nascent firm processes. This study amplifies the personal voices through subjective perspectives that might not be heard elsewhere.

Keywords: healthcare; innovation; entrepreneurs; pandemic; decision-making

**Charleata Battle, Doctoral Candidate, Georgia State University**

### ***Navigating Institutional Voids & Institutional Structures in Emerging Markets***

The business drive to compete and secure consumers for products and services in new markets is an eternal quest for many multinational organizations. Curiosity about organizational investment flows and international trade between countries has been a popular international business research topic for the past two decades. The purpose of this work was to compare and to contrast organizational approaches to internationalization and to examine how organizations navigated through different institutional structures. We elaborate on the theoretical frameworks, concepts, issues, and topics from the analysis of extant scholarly works. This paper was inspired by the quest to answer the research question: How do organizations navigate institutional voids and different institutional structure in emerging markets? Institutional voids are reflections of conditions created out of the absence or weakness of formal institutions. Conditions created by institutional voids impact the way business is conducted across societies.

A key contribution of this study is to inform the internationalization decision making process and to provide information to multi-national corporations (MNC's) regarding opportunities to recognize and leverage two critical success factors for entering emerging markets: institutional voids and unique institutional structures. This paper provides an opportunity for future inquiry on emerging markets. The study has practical applications for engaged scholarship and practitioners. The research method of inquiry contributes to validation of the resource-based view (RBV), as a longstanding theoretical approach to leveraged to understand the complexities of international business and MNC internationalization decision strategies for emerging market strategies.

Keywords: emerging markets; institutional voids; institutional structures; decision-making; internationalization

**Charleata Battle, Doctoral Candidate, Georgia State University**

**Dale Herndon, Doctoral Candidate, Georgia State University**

**Drew Huey, Doctoral Candidate, Georgia State University**

**Scott Murray, Doctoral Candidate, Georgia State University**

### ***Pharmaceutical Expansion into Emerging Markets: Czech Republic***

The life sciences industry is comprised of companies that are preoccupied with advancing the health of society through pharmaceutical research, drug discoveries, clinical trials, and other therapeutics that improve disease diagnostics, treatments, and maintenance. The onset of the global

COVID-19 pandemic exasperated the need for emergency and urgent responsiveness to the world health crisis.

The development of sustainable collaborative stakeholder networks where patients, researchers, clinicians, and life sciences organizations work together, has been historically wrought with various challenges and stalled healthcare innovations delivery in the US. One consideration for multinational corporations (MNC's) is to expand into emerging markets where the processes of research & development that leads to mass commercialization of new drug discoveries and therapeutics is expedited in comparison to the beaucratical processes and challenges within the organization's home country in the US.

This study seeks to answer the research question: How do multinational pharmaceutical companies navigate expansion into emerging markets? The study designed a case study for a large multinational pharmaceutical organization focused on severe diseases that have unmet needs and a desire for greenfield expansion in the Czech Republic for new manufacturing and distribution centers to enhance access to patients and to innovate in an emerging market environment with accelerated drug commercialization processes.

There are three expected contributions from this study towards advancing knowledge accumulation in immunology, neurology, and bone through emerging market greenfield expansions: technology explorations, data and real-world evidence and open innovations for drug therapeutics regarding

Keywords: pharmaceutical; research; drug discovery; clinical trials; emerging markets

**Karri Blalock, Undergraduate Student, Georgia Gwinnett College**

**Dr. Rebecca Cooper, Professor of Curriculum and Instruction, Georgia Gwinnett College**

**Dr. Samantha Mrstik, Assistant Professor of Curriculum and Instruction, Georgia Gwinnett College**

Faculty Sponsor: Dr. Rebecca Cooper

***The Development of Computer Simulations for Educator Preparation Programs and the Benefits for Teacher Candidates***

Teacher education across the county must change with the times. “This shift in teacher practices, which in turn should lead to shifts in student discourse and learning, is occurring at the same time as computer simulations are emerging in teacher education. Computer simulation is taking center stage as a next generation environment for teacher professional learning, allowing teachers to learn pedagogical skills within content areas” (Dieker, Straub, Hynes, Hughes, Bukathy, Bousfield, & Mrstik, 2019).

Starting in the fall of 2020, Georgia Gwinnett College (GGC) began to use computer simulations to supplement teacher candidates' field experiences. This was an important semester to support our year one candidates because due to COVID 19, these candidates did not have any field placements and thus, no student interaction. The use of the avatars via the computer simulation

provided a much-needed experience for these teacher candidates. We have since continued to use computer simulations in all of our teacher education program across all four semesters.

As a result of being exposed to and interested in this computer simulation experience, a GGC Teacher Certification Biology student was chosen to participate in the The American Association of Colleges for Teacher Education (AACTE)/ National Science Foundation (NSF Simulations) for Secondary Science Teachers Conference. This presentation will discuss her participation in and reflection of this educational experience.

**Dr. Marvin Bontrager, Assistant Professor of Management, Georgia Gwinnett College**  
**Dr. Jay Marinan, Assistant Professor of Business Communications, Georgia Gwinnett College**

### *Views on Empathy and Leadership in Business Schools*

In the field of leadership research, many studies exist which examine traits that are associated with leadership. Certain traits emerge that are often analogous to the level of effectiveness leaders have as perceived by their followers. These traits can become prescriptive in that followers form expectations regarding the ideal prototype that leaders should have in order to be considered effective. Emerging research suggests that empathy is an important and often overlooked leadership trait that should be examined further. Given the influence that empathy has on business decisions and the actions of leaders, the way that undergraduate students view empathy is an important consideration as they become future leaders in organizations. Previous studies have shown that empathy has ranked low among students in regards to ranking leadership traits. As leadership research extends beyond traditional leadership styles and perceptions in the workplace, empathy is increasingly being recognized as an important trait to be demonstrated by the next generation of leaders. The extent to which empathy receives the appropriate consideration and focus in academic studies is minimal in most business schools. This may stem from current views of which leadership traits are considered most important. Instructors are faced with the question of whether empathy can or should be taught in the classroom. The current study seeks to explore undergraduate student perceptions on leadership traits and rank them according to perceived importance. In addition, students are assessed regarding their own level of empathy. Implications for researchers and instructors will be discussed.

**Dr. Melinda Cline, Professor and SBA Alumni Data Coordinator, Georgia Gwinnett College**  
**Dr. Tyler Yu, Dean of the School of Business, Georgia Gwinnett College**  
**Dr. Mei Miranda Zhang, Professor, Associate Provost, and Director for the Center of Teaching Excellence, Georgia Gwinnett College**

### *Diversity: A Comparative Analysis of School of Business Admission and Graduation*

Equitable access to college has been a critical goal for higher education since the passage of the Civil Rights Act in 1964 and the Higher Education Act in 1965. Valuing diversity is now often included in university and college mission statements and student admissions reflect an increasing focus on inclusion. While admitting a diverse population of students is progress, graduating a diverse population of students who have equal access to employment opportunities and equitable

salaries is the goal. This study provides a methodology for and comparative analysis of differences among students entering and graduating from a school of business within a highly diverse college and community. Annual Program Review data is combined with graduation data to examine the consistencies among the demographics of enrolled students and alumni . Unlike Integrated Postsecondary Education Data System (IPEDS) analysis, which uses only first-time-full-time freshmen for graduation demographic reporting, this study combines demographic data from all enrolled students with lagged graduation data for all alumni to provide a more comprehensive analysis of program success. The analysis also includes salary differences among graduates 3-years post-graduation. The methodology and related findings are intended to inform future research, highlight areas for continuous improvement, and provide the many constituencies who are working to create a more equitable environment in higher education for diverse populations with ideas for new strategic initiatives.

**Dr. Anish Dave, Associate Professor of English, Georgia Southwestern State University**

***Crisis-Induced Illumination: Focusing on Student Learning Above All***

Covid-19 necessitated pedagogical changes in higher education globally (Witze, 2020; Kedraka & Kaltsidis, 2020). Kedraka & Kaltsidis (2020) surveyed students in a Greek university and found that nearly 71% respondents reported missing “face-to-face communication during lessons” (p. 25). A Massachusetts Institute of Technology administrator stated that once the pandemic was over universities should “focus in-person time on interacting with students to ensure that they understand the concepts being taught” (Witze, 2020). He advised against “wast[ing] proximity” (students’ in-person attendance). The pandemic may “force” universities in developing countries to “improve the quality and relevance of their teaching” (Witze, 2020). Similarly, after the Covid-19 crisis had begun to decline, I concluded that students’ main concern in college was acquiring learning they needed to succeed professionally and in their lives. So I decided to focus on student learning in my teaching. In my presentation, I will share the strategies I used to pursue this goal in a Composition-I course, which included carefully designed assignments and in-class instruction focused on student learning. To provide the students’ perspective, I will share data from a student survey that asked specific questions about the course assignments and in-class instruction.

References

Kedraka, K., & Kaltsidis, C. (2020). “Effects of the Covid-19 pandemic on university pedagogy: Students’ experiences and considerations.” *European Journal of Education Studies*, 7 (8), pp. 17-30. DOI: 10.46827/ejes.v7i8.3176

Witze, A. (2020). “Universities will never be the same after the coronavirus crisis.” *Nature*, 582, pp. 162-164. doi: <https://doi.org/10.1038/d41586-020-01518-y>

**Dr. Ashley Douglass, Assistant Professor of Accounting, Trinity University**  
**Dr. Amy Holmes, Associate Professor of Accounting, Trinity University**

***Auditing from Home: The Impact of the COVID-19 Pandemic Transition to Auditing Remotely, and Advances in Technology***

The COVID-19 pandemic caused unprecedented disruption in the world, with millions of professionals working from home and adapting to a virtual work environment for the first time. This study explores the perceptions of accounting professionals during the pandemic and the impact on the audit environment due to changes in working procedures as a result of the rapid transition to remote work and the implementation of new technologies. Based on a survey of auditors and other accounting professionals in the United States, we find that most accountants adapted well to changes during the early months of the pandemic. However, staff auditors had more trouble focusing on work from home. Non-white accountants were more worried that their jobs were at risk due to the pandemic-caused recession and were more concerned about confidentiality of client information in the work from home environment. Findings suggest that auditors and accountants are well suited to adaptation in a new environment and are relatively positive about changes in technology in the accounting profession.

**Dr. Mario Gonzalez-Fuentes, Associate Professor of Marketing, Trinity University**

***Digital Storytelling as a Pedagogical Tool in Marketing Education: Past, Present, and Future***

A digital story is a multimodal product combining audio and visual content with an oral narrative. Think of it as a video in which you use your own voice (maybe even music or sounds) and a collection of pictures or short videos, that transition from one to the next as the narrative unfolds, as vehicles to get your message across. In other words, a digital story has three layers: visual, audio, and narrative (written script). Each layer provides storytellers a separate lens to transmit meaning and engagement. Thus, as a pedagogical tool, digital storytelling exposes students to the use of multiple perspectives to engage in reflection and integration of knowledge and experiences in a compelling narrative. It also promotes deeper comprehension of complex issues as well as critical thinking and synthesizing skills.

Applications of digital storytelling in the teaching of marketing at the college level exist. Most of them have focused on students' reflections about their internship experiences, consumer behavior concepts, and to develop skills for personal branding. However, we argue that digital storytelling's potential is still significantly untapped. This presentation will present the results of a systematic review of the use of digital storytelling as a pedagogical tool in marketing education over the past 20 years. We will discuss the opportunities for educators to enrich their courses with this technique and identify the gaps both in applications and pedagogical research within this topic.



**Dr. Rong Guo, Assistant Professor of Finance, Georgia Gwinnett College**

***How Gender and Race Diversity Affect Investment Strategy***

There are some gender-based studies on investments and find conflicting results as to whether women are likely to take less risk than men. For example, Barber and Odean (2001) find that men invest in riskier positions than women when risk is measured in terms of portfolio volatility, individual stock volatility, and beta, while Bliss and Potter (2002) find that women are willing to bear more risk and also earned higher raw return. I would examine how gender affects portfolio risk (volatility, beta as well as portfolio composition, which is new risk measure) and portfolio return (raw return and net return). Georgia Gwinnet College has a very diversified student population; it could be the perfect place to test how diversity in race affect the risk and return of investment portfolio.

I will examine the data collected from student's trading journal during the 14-week investment period. In this journal, students are required to record the date of the transaction, whether the transaction is a buy or sell, the number of shares (or options contracts) traded, price per share (or per contract), commission fee, dollar amount of investments and the logic behind the transaction. All students also took a risk assessment test at the beginning of the semester. I will test whether their risk tolerance score is related to the risk and return of their investment portfolio. Then I will divide the sample based on variables such as gender and race and test how gender and race diversity affect investment outcome.

**Dr. Joie Hain, Assistant Professor of Marketing, Clayton State University**

**Dr. Anita Whiting, Professor of Marketing, Clayton State University**

***Student Success through Community Engagement***

This case study seeks to demonstrate how a community engagement project in an undergraduate and graduate college class can lead to student success. Students in the social media marketing classes were given the task of completing a Digital Marketing Audit for a local Rotary District. In particular, students were asked to (1) review and analyze the Rotary's District social media platforms, website, email marketing and newsletter, and (2) provide recommendations. At the end of the semester, the students presented their findings and recommendations to the Rotary District in a written report and via Microsoft Teams. The findings and recommendations were well received by the Rotary District. Students benefited from the project by being able to apply their classroom knowledge to the real world and by gaining valuable industry connections and employment opportunities. Overall, this community engagement project enhanced student learning and student success while the university also obtained positive community visibility.

**Professor Dale Herndon, Visiting Assistant Professor of Finance, Georgia Gwinnett College**  
**Professor Drew Huey, Doctoral Candidate, Georgia State University**  
**Mrs. Deepa Vivekanandan, Doctoral Candidate, Georgia State University**

*Cybersecurity Risk Profile Framework in the Context of Mergers and Acquisitions*

Cybersecurity is becoming an increasing concern and importance to corporations across the globe, forcing companies to work on preventative solutions instead of retroactively responding to threats like they have in the past. Some of the largest corporations in the world are now dedicating more time and resources than ever to enhance cybersecurity capabilities. With so much of our world connected and “online” these days, lacking proper cybersecurity measures has repeatedly shown that it could quickly result in the tarnishing of a brand and the loss of millions of dollars and customers, as it has for companies like Target, Yahoo, Sony, and Marriott over the past few years.

While each breach is unique and brings its own set of complexity and nuance, the underlying theme remains the same in each instance: cybersecurity is not only becoming an increasingly complex challenge for companies to tackle, but it is becoming of greater significance as well.

It is even more impactful and poses a significant risk in mergers and acquisitions as it can significantly reduce the value of the transaction, if not cause a termination of the transaction altogether. A thorough and structured due diligence might be necessary to evaluate cyber risks. It is very important to study how organizations represent cybersecurity risk profile in mergers and acquisitions that includes the different dimensions including Personal Confidential and Regulatory Data, Corporate Protected Category Data, Impact and Security Controls, Data Center and Network Security, Security and Incident Response Process, and Security Threat/Probability. The discovery-oriented grounded research study would lead to a comprehensive cybersecurity risk profile. The resulting risk profile framework can contribute to an effective and thorough cyber due diligence in the context of mergers and acquisitions.

**Dr. Will Holmes, Associate Professor of Economics, Georgia Gwinnett College**  
**Dr. Melinda Cline, Professor of Management Information Systems, Georgia Gwinnett College**  
**Dr. Andrew Stephenson, Associate Professor of Economics, Georgia Gwinnett College**

*The Impact of Information Technology Investment on Firm Survival: A Longitudinal Analysis of the American Freight Railroad Industry*

This study examines the impact of information technology (IT) investment on firm survival in the American railroad industry since the passage of the Staggers’ Act of 1980. This longitudinal study uses a detailed and comprehensive set of industry data reported annually to the Surface Transportation Board (STB). All large (Class I) U.S. freight railroads are included in the analysis. Based on a Kaplan-Meier survival estimate, grouped by quartile, we find higher IT investment by firms is associated with higher likelihood of survival during the past 30 years. Using duration analysis, we find that firms with higher levels of IT investment, compared to others in the industry, are significantly less likely to fail over time. Additionally, a system equations analysis indicates that failed firms used IT investment to substitute labor for capital differently than successful firms.

While the failing firms were more likely to substitute between IT investment and labor, a complementary relationship is observed between those two inputs of production in the surviving firms. These systematic tendencies between the surviving and failing firms reveal that the changes in firm composition which accompanied IT investments were a key channel in determining whether or not a firm survived.

**Dr. Kyle Huff, Associate Professor of Management and Director of the Leadership and Management Development Institute, Georgia Gwinnett College**

***Motivation Made SMART***

A hard lesson in life is that sometimes ability is not enough for good performance. For someone to succeed in the classroom, not only do they need the ability to do so, but they also need to be properly motivated to reach their goals. Various techniques such as specs grading and Mindset interventions have been proposed as standalone solutions to overcome various issues with student learning and motivation. However, to best influence student outcomes, focusing on one technique alone may not be enough. This session is going to give an overview of the Goal Setting theory of motivation and Self-Efficacy. Goal setting theory states that specific difficult goals, such as those potentially found in specs grading, are best to motivate a person. In addition, self-efficacy states that a person's beliefs about their probably success or failure, such as mindset, influence their effort towards those goals. The intent of this session is to give an overview of the scientific literature on the goal setting theory of motivation and strategies to apply it on a group and individual level to drive student learning.

**Ms. Kristina Lang, Reference and Instruction Librarian, Georgia State University**

***Staying Grounded in the Academic Library: Contemplative Practices for Instruction Librarians***

The benefits of meditative practices have been demonstrated in a variety of settings, and mindfulness has been utilized in multiple therapies for decades. More recently, these techniques and exercises have been employed to help students and teachers de-stress outside of the classroom while interest in contemplative approaches to education is growing. This session will illustrate how teaching librarians can apply these concepts for self-care promoting personal and professional growth as well as a part of their contemplative pedagogy, incorporating them into instruction and programming (with teaching tips and best practices).

**Yazmeen Mayes, Undergraduate Student, Kennesaw State University**

Faculty Sponsor: Dr. Laurence Sherr, Professor of Music and Composer-in-Residence, Kennesaw State University

***Process of Improvising a Narrative Song: Creating an Interactive Workshop***

In this project, I will demonstrate the process of virtual, collaborative songwriting. The pandemic has transformed every industry over the last two years, and music is no exception. Thus, in this presentation, the audience and I will discuss different methods of online creation through musical collaboration.

**Dr. Karen McCarron, Assistant Professor of Accounting, Georgia Gwinnett College**  
**Dr. Alan Burstein, Professor, Gordon State College**

***Two Approaches to Increase Understanding in Introduction to Managerial Accounting***

One of the greatest challenges in teaching introductory managerial accounting is imparting knowledge to students about the processes involved in modern day production. Since most of the course concentrates on giving students the skills to determine the costs of manufacturing a product it is incumbent on the instructor to provide a basic understanding of the various aspects of production. The proposed presentation presents two alternative methods of introducing this information into the course.

The first is the use of videos from the Science Channel's How It's Made series. Each episode of How It's Made presents the production of everyday goods students are familiar with such as beer, blue jeans, and Harley Davidson motorcycles. With approximately 20 seasons of episodes, each one containing about three different products, a constant supply of interesting episodes is available. Most of the episodes can be accessed in free YouTube videos.

The second method involves a group project. Students are separated into teams with each team being assigned the 'manufacture' of a simple product such as peanut butter or candy canes. The students research the industry in which their product operates to understand the requirements for manufacturing: any necessary equipment; raw materials input, labor operations along with the requisite skills of employees, and any items that contribute to overhead costs. Armed with this information each group follows the process required to develop cost estimates for their product that include direct materials, direct labor, and overhead costs. At the end of the semester each group presents the results of their manufacturing process and the accounting for it.

Each method can be used independently or they may be combined. Both methods have been used successfully by the coauthors over a series of years. We plan to illustrate these two approaches and provide tips for implementation by other instructors.

**Dr. Amy Mungur, Assistant Professor of Curriculum and Instruction, Georgia Gwinnett College**

**Dr. Rebecca Cooper, Professor of Curriculum and Instruction, and Science Education, Georgia Gwinnett College**

***Navigating Perceived Learning Loss: Supporting Student Teachers in a Pandemic-altered World***

This presentation demonstrates the work of two School of Education faculty members as they navigate ways to support GGC secondary student teachers' self-identified "learning loss." These student teachers first encountered field experiences in 2020, at the height of COVID-19. Having only "seen" teaching through virtual settings, the "pandemic-altered world" of school year 2021 has resulted in students feeling ill-prepared in areas such as lesson planning, building positive classroom environments, and strategies for motivating students in their secondary classrooms. To

support their needs and concerns about preparedness, the faculty modeled an inquiry-based lesson, integrating the disciplinary subjects of our secondary student teachers: Science, Math, English Language Arts, and Social Studies. After implementation, professors debriefed with students, discussing their planning process, instructional decision-making, and rationale for using specific strategies to hit specific learning targets. Video evidence and lesson samples will be provided to illustrate how our students were given space to participate, reflect, and deconstruct a well-planned lesson. Students walked away with an expanded vision of what teaching can be, along with a set of practical instructional tools for recreating inquiry-based integration to support their own students in this “pandemic-altered world.”

**Jennifer Nguyen, Undergraduate Student, Georgia Gwinnett College**

**Dr. Ali Akdeniz, Assistant Professor of Chemistry, Dalton State College**

**Dr. Chantelle Anfuso, Associate Professor of Chemistry, Georgia Gwinnett College**

**Dr. Joshua Morris, Associate Professor of Chemistry, Georgia Gwinnett College**

Faculty Sponsor: Dr. Joshua Morris

### ***Developing an At-home Chemistry Lab Using Everyday Household Items***

Due to an expansion of online chemistry programs, and the on-going pandemic, there is a need for at-home chemistry experiments that safely and cheaply replicate the in-person procedures. Here we show that an at-home titration using baking soda as a titrant can quantify citric acid in lemon juice. Baking soda, a weak base, results in carbon dioxide when reacted with an acid. Weak bases typically are not used for titrations because the reaction does not run to completion. The key innovation enabling baking soda to be used in a titration is the addition of the candy Mentos to promote rapid gas evolution of carbon dioxide thus taking the reaction to completion by Le Chatelier's principle. The results of the at-home titration are compared to a traditional in-person titration by the same undergraduates. This comparison shows the at-home procedure is reasonably accurate while being safe, accessible, and low cost.

**Dr. Laura Oramas, Assistant Professor of Psychology, Georgia Gwinnett College**

**Dr. Kimberly Griffin, Licensed Professional Counselor, Just Talk Counseling and Consulting**

**Dr. Young Rae Shim, Assistant Professor of Psychology, Georgia Gwinnett College**

**Dr. Hyesung Park, Associate Professor of Information Technology, Georgia Gwinnett College**

### ***Impacts of Pandemic-Related Academic Setting Changes on Achievement Motivation and Self-Efficacy in College Students***

Student learning has historically been challenged in periods of crises, including pandemics such as Covid-19. In the midst of this global pandemic, students experienced the sudden transition from traditional face-to-face learning to remote learning. With social distancing being imperative and many institutions being largely unprepared for the sudden transition to online instruction, students' learning and academic performance may have been negatively impacted. Students have reported that online courses are more challenging than face-to-face courses and leave many of their needs

unmet. The lack of direct social interaction and limited social presence in the online learning environment may negatively impact students' academic performance.

This study examined how social isolation in students' courses resulting from the move to online learning and the requirement for social distancing impacted their academic motivation and self-efficacy. A total of 206 GGC students from the multiple disciplines completed the demographic questionnaire, social presence scale, academic motivation scale, and self-efficacy scale. The findings revealed that self-efficacy was significantly correlated with high academic motivation, particularly when it came to intrinsic motivation. The results showed that social presence impacts academic motivation and self-efficacy among students. We also examined whether there were differences on the basis of demographic variables such as age, gender, GPA, computer literacy, and found that there were some meaningful results in academic motivation on ethnic differences and GPA.

Understanding of the relationship between students' achievement motivation, self-efficacy, and online social isolation would assist educators in designing and developing effective instructional methods to improve student learning outcomes.

**Dr. Karen Perell-Gerson, Professor of Exercise Science, Georgia Gwinnett College**  
**Dr. Katherine Pinzon, Professor of Mathematics, Georgia Gwinnett College**

### *Experiential Learning Opportunities within the Classroom – Effects of COVID-19 Pandemic*

Experiential learning is learning through reflection on doing. Kolb's (1984) cycle of learning depicts the experiential learning process as the integration of knowledge (concepts acquired through formal learning), activity (application of knowledge to a "real world" setting), and reflection (analysis & synthesis of knowledge and activity to create). Traditional experiential Learning opportunities include service learning, internships, field work, study abroad; all activities which were severely limited or cancelled due to the COVID-19 pandemic. Active learning activities (e.g. role playing, problem-based learning, client-based projects, guided skills practice) can serve as experiential learning activities within the classroom, allowing for the same learning process of knowledge, activity, and reflection without going out into the community and can, in some cases, be done online. Jacoby (2012) suggested that experiential learning inside the classroom can be used to synthesize information to solve complex problems, provide application of concepts to practice in new contexts, and enable students to work collaboratively.

This presentation will discuss two examples of experiential learning within the classroom done within the backdrop of the COVID-19 pandemic. As traditionally taught, BIOL 2451K laboratories focus on a "look and see" approach, rather than activities to enhance study inquiry, help students learn skills to "think like a scientist," and promote creative and critical thinking (Casotti et al. 2008); necessary skills for those entering the health professions. In employing the Experiential Learning Process (Kolb & Kolb, 2011), a range of motion laboratory where students integrate lecture information, apply that information to the "real world" setting of measuring range of motion across a variety of individuals, and synthesize the activity and previous knowledge to create a therapy plan for a "real" patient was developed. Students reported that it enabled them to apply their knowledge of bony landmarks to an experience that they might encounter as a

healthcare provider. In the era of COVID-19, it also required them to use safety precautions necessary for healthcare providers as well.

As part of the corequisite STEM sequence, mathematical modeling is also a course which traditionally doesn't include an experiential component, yet often requires students to overcome personal barriers to learning, including confidence in their abilities, poor study habits, and motivation. Following the Experiential Learning Process (Kolb & Kolb, 2011) to help students become reflective learners, a semester long project was developed to have students think about their own learning and mindsets. Students complete mini reflections throughout the semester on their study skills and mindsets. They apply these in a "real world" setting by considering how outside influences, including family, teachers, and role-models, affect their mindsets and time management. Finally, the students create a digital storyboard to reflect on their experiences and changes throughout the semester.

These two examples provide evidence that experiential learning, while traditionally focused outside the classroom, can easily be incorporated into the classroom. Critical to these examples is the use of reflection in the activity. John Dewey (1939) suggested that "we don't learn from experience. We learn from reflecting on experience." Through reflection, students analyze concepts, evaluate experiences, and form opinions. It involves observation, asking questions, and putting facts, ideas, and experiences together to derive new meaning and new knowledge. By teaching our students to be reflective learners, we assist our students in developing skills to bridge the information that they learn in class with their experiences in the "real world" enhancing their overall learning.

**Dr. Karen Perell-Gerson, Professor of Exercise Science, Georgia Gwinnett College**  
**Dr. Jeff Pasley, Associate Professor of Exercise Science, Georgia Gwinnett College**  
**Dr. Caroline Hanson, Lecturer in Biology, Georgia Gwinnett College**  
**Dr. Joshua Wludyga, Assistant Professor of Exercise Science, Georgia Gwinnett College**

### *Student Perceptions of Behavior Change Intervention in Anatomy & Physiology*

Anatomy and Physiology I (API) is a gateway class to careers in allied health. In order to perform well in API, students must hold themselves accountable & know what is required of them. Many students underestimate the time required to learn large amounts of material (Bash & Kreiner, 2014). The contract and timecard interventions serve to provide students with an understanding of the rigors of this class. We have previously reported that the percentage of As earned was increased in classes with the contract + timecard when compared to the control class sections (Pasley et al. 2021). The purpose of this study is student opinions of the use of contracts + timecards across several sections & faculty teaching the course.

Students were required to sign a learning contract indicating they were aware of the requirements to do well in the class. To make students more self-aware of their actual study time, they were required to keep weekly timecards of their daily study time for API. Data from seven sections across five faculty were obtained during Spring 2020 from a Qualtrics electronic 24- question survey.

The response rate for the survey was 63% (124/168 students) across the 7 sections. Sixty-five percent (65%) were pre-nursing, 14% were Exercise Science & 12% were post baccalaureate students. Students (46%) were sophomores while 15% were freshmen & 18% were juniors. It was the first time that most students (86%) were taking the class. Students reported that their overall GPA was between 3.0-3.49 (48%), while 33% reported that their overall GPA was 3.5 – 4.0. Students (67%) reported working and average amount of 31 +/- 11 hours/week.

Most students (84%) submitted the weekly time cards very often (12-14 weeks). When reporting on the average number of hours studied per week, students reported that they studied 0-5 hours (22%), 5-10 hours (35%), 10-15 hours (27%), & 15+ hours (15%). When asked if the contract changed how students viewed the course, 41% reported that they already knew the course rigors, but 42% reported that the contract made them realize that they would have to study more than planned. Of this group, 52% were B (3.00-3.49), 29% were A (3.5-4.0) and 19% were C (2.00-2.99) students. When asked if the timecards encouraged them to study more outside of class, 43% reported that the timecards made them realize that they needed to study more, while 33% reported that they already knew that they needed to study a lot and 24% reported that the timecards did not influence study time. Of those influenced by the timecards, 58% were B (3.00-3.49), 32% were A (3.5-4.0) and 9% were C (2.00-2.99) students. When asking about academic performance improvement due to completing timecards, 35% reported that it made them realize that they needed to study more, but 35% also reported that they already knew that they needed to study a lot, while 30% reported that the timecards did not influence their academical performance. When looking at those who felt that their academic performance improved by completing the timecards, 52% were B (3.00-3.49), 33% were A (3.5-4.0) and 14% were C (2.00-2.99) students.

It appears from our data that approximately 30-40% of the students already recognized that this class required a large amount of studying. An equal number (30-40%) of students, however, felt that the contract + timecards made them realize that their expectations of studying for this class needed to increase & the intervention helped them see that. It seems that this assistance was most influential in students who report being B (3.0-3.49) students. Thus, the intervention may be most effective for B students to become A students. Further work would focus on looking at opinion data and tying it to final grade data in the class. Additionally, this type of intervention is immune to pandemic issues as it was started during the semester where classes initially were in-person and then transitioned to online.

**Megan Price-Williams, Undergraduate Student, Georgia Gwinnett College**

**Venessa Peart, Undergraduate Student, Georgia Gwinnett College**

**Tyler Walker, Undergraduate Student, Georgia Gwinnett College**

**Ayrton Paz Soldan, Undergraduate Student, Georgia Gwinnett College**

Faculty Sponsor: Dr. Amy Fehl, Assistant Professor of Marketing, Georgia Gwinnett College

### ***Predictors of COVID-19 Vaccine Acceptance in College Students***

In the midst of the coronavirus (COVID-19) pandemic, medical experts and scientists have developed three vaccine options to mitigate the spread of the disease. Colleges and universities have welcomed students back to in-person sessions following the introduction of COVID-19 vaccination. However, despite the increasing availability of these vaccines including on-campus



vaccination sites, nearly half of individuals aged 18-24 years old remain unvaccinated. This presents the rate of vaccination in the age group of college students as one of the lowest in the United States population according to the Centers for Disease Controls and Prevention (CDC) data, so the question arises of “why?”. Vaccination entails a personal medical decision with many potential decision-making criteria present; these potential influencers could range from gender, race, relationships, access to and understanding of background information, and perceived societal pressure. As students return to campus and attempt to re-establish normalcy, this study aims to identify and understand the predictors of vaccine hesitance among college students.

**Dr. Darryl Romanow, Assistant Professor of Management Information Systems, Georgia Gwinnett College**

**Dr. Nannette Napier, Associate Dean and Professor of Management Information Systems, Georgia Gwinnett College**

**Dr. Melinda Cline, Professor of Management Information Systems, Georgia Gwinnett College**

### ***A Flipped Classroom Approach to COVID: A Business Intelligence Skills Analysis***

The COVID-19 pandemic dramatically impacted the global post-secondary education environment beginning March 2020, leaving many traditionally formatted face-to-face classrooms scrambling to adapt. This paper describes the process used to convert a traditional business intelligence class to a flipped classroom approach, while maintaining active learning, groups and discussion. End of term skills assessments of four pre-COVID sections were combined with skills assessments from two post COVID flipped online sections. The post-COVID sections used pre-recorded Kaltura video lectures, supplemented with Blackboard Collaborate virtual meetings to execute a flipped online approach. Our regression results indicate that a flipped approach applied to online education is significantly supportive of higher skills attainment. While group formation enabled an enhanced level of in-class assignment completion and promoted reflective discussion in the classroom, discussion techniques were less impactful during COVID. Business intelligence education nuances, as well as the implications and pedagogical strategies for improved skill attainment are reviewed.

**Dr. P. Wesley Routon, Associate Professor of Economics, Georgia Gwinnett College**

**Dr. Jay Walker, Assistant Professor of Economics, Old Dominion University**

### ***Relative Age and Self-Perceived Skill Acquisition During College***

School starting age policies result in academic cohorts where the oldest students are approximately a full year older than their youngest peers. A student's relative age in their cohort has been shown to have significant effects on a growing list of outcomes, both academic and non-academic. On average, older students have been found to score higher, repeat grades less often, have more focused goals, fewer mental health problems, be more competitive, and more often enroll in college. There is also evidence they fare better in post-college labor markets. Among the open questions: Are there also soft skill acquisition differentials? Are students self-aware they are benefiting from their education at different rates? Relative age's importance during college has also received less attention than other levels of schooling. Using a sample of students from

hundreds of U.S. colleges and universities, we estimate the effects of relative age on students' self-perceptions of changes in 13 knowledge and skill categories during undergraduate tenure. Relatively older students are found to report smaller gains in a large number of categories, and in no category do they report larger average gains. Thus, while older students perform better academically, on average and as measured objectively through grades, they have the perception they benefited less from higher education. This highly consistent finding has implications for school starting age policies, pedagogy, and educational psychology.

**Dr. Qing Shao, Associate Professor of Physics, Georgia Gwinnett College**  
**Dr. Zengjun Chen, Associate Professor of Physics, Georgia Gwinnett College**  
**Dr. Karen Perell-Gerson, Professor of Exercise Science, Georgia Gwinnett College**  
**Dr. Xiaoping Li, Associate Professor of Chemistry, Georgia Gwinnett College**  
**Dr. Lijun Pang, Assistant Professor of Physics, Georgia Gwinnett College**

### *Practices to Engage Students in the Class Project in a Pandemic-altered World*

The project in PHYS 1112K is designed and proposed before the pandemic. In the original plan, students were required to work in groups to conduct a mini-research project related to their major with an oral presentation component. Faculty with backgrounds in physics, exercise science, and chemistry guided each group through the process of the project. After the pandemic started, it was challenging to conduct the class project as planned due to the public health concerns, such as social distancing and mask-wearing. To address this issue, some adjustments were made to the project requirements to make it feasible, such as shifting the focus to literacy research, prerecording and sharing the presentation in video format on Desire2Learn, and requiring review reports after students watched other's presentations. In addition, several strategies were used to ensure a similar level of students' engagement in the project, such as one-on-one live online meetings with project advisors, faculty feedback along the way from the initial project proposal to the draft of the presentation. This revised way to conduct class projects has been implemented in both face-to-face and online courses and is adaptable in the constantly changing situation during the pandemic. Despite some technical difficulties, all students adapted to the new format and got most of the benefits of the class project as originally designed.

**Dr. Young Shim, Assistant Professor, Georgia Gwinnett College**  
**Dr. Rebecca Eaker, Assistant Professor, Georgia Gwinnett College**  
**Dr. Junkoo Park, Assistant Professor, Georgia Gwinnett College**

### *Mental Health Education and Changes in Level of Awareness and Stigma Regarding Mental Illness Among College Students*

Many college students have struggled with mental health issues, sudden changes, and social isolation during the Covid-19 pandemic. Research indicates that lack of awareness and stigma are two of the main deterrents to seeking mental health treatment. It is important to promote awareness and identify students who may be at risk for mental health issues that will impact their psychological well-being. Colleges can identify students who are at risk for such issues and may need to seek treatment. Our study examined whether psychoeducational tools are beneficial in improving awareness and reducing stigma regarding mental health. In this study, 147 students

enrolled in Abnormal Psychology, which focuses on mental illness, were recruited voluntarily to complete a pre-test through Qualtrics, which included demographic questions, Beliefs Toward Mental Illness Scale (BTMI), and Stig-9 questionnaire (stig-9). Students took the same test twice, at the beginning and end of the semester, and we compared the scores to examine whether mental health education contributes to improving levels of awareness and reduced stigma. We collected data twice in the spring and fall semester. The initial data revealed that paired sample t-tests showed statistically significant differences on stigma. Some of the factors in Beliefs toward Mental Illness showed an increase after mental health education. The post-test data will be analyzed once students have completed the second round of surveys in early December. This research will contribute to strengthening awareness of mental health and fostering supportive programs for students who struggle with mental health concerns.

**Dr. Marsha Simon, Assistant Professor of Education Research, University of West Georgia**

***Back to the Drawing Board: Incorporating an Interactive Approach to Improve Writing in an Introductory Research Course***

While the current global pandemic presented many challenges as schools shifted to virtual learning environments, it also highlighted the efficacy and flexibility of online education. As potentially more students enroll in graduate education, educators remain concerned about the writing skills of the increasing number of students. Many graduate students struggle with demonstrating writing proficiency (Badenhorst, 2019; Duchardt et al. 2016; Huerta et al., 2017; Nelson et al., 2012; Ondrusek, 2012). This paper describes an interactive approach to writing used in a research course that includes peer-review groups, writing workshops, and reflective writing to support students as they finalize a research paper. During the course, the final in a three-course research series, students produce a full research report on a completed single case research design study in the field of special education. Centered within the scholarship of teaching and learning (SoTL), this paper details how the redesignation of the learning outcomes of the course, specific to writing, supports students in becoming more competent writers.

References

- Badenhorst, C. M. (2019). Literature reviews, citations and intertextuality in graduate student writing. *Journal of Further and Higher Education*, 43(2) 1–13. doi:10.1080/0309877X.2017.1359504
- Duchardt, B., Furr, P., & Horton, S. G. (2016). A comparison of a progression of writing competencies in online undergraduate and graduate courses: Results and implications. *College Student Journal*, 50(4), 467–476.
- Huerta, M., Goodson, P., Beigi, M., & Chlup, D. (2017). Graduate students as academic writers: Writing anxiety, self-efficacy and emotional intelligence. *Higher Education Research & Development*, 36(4), 716–729. doi:10.1080/07294360.2016.1238881
- Ondrusek, A. L. (2012). What the research reveals about graduate students' writing skills: A literature review. *Journal of Education for Information Science*, 53(3), 176–188.

**Dr. Stefan Sleep, Assistant Professor of Professional Sales, Kennesaw State University**  
**Mr. Brent McCulloch, Lecturer of Professional Sales and Sales Management, Kennesaw State University**

***Being Nimble in a World of No Absolutes: Faculty Coaching in Traditional and Virtual Environments***

External sales competitions are an increasingly important part of the undergraduate experience. In the Marketing/Sales area there are over 20 unique case and university hosted role play competitions. Success (finishing in the top five) in these competitions requires preparation well in advance of the competition, for weeks if not months. A critical component of preparation is faculty coaches who work with the students outside of class time. There are lessons learned from face-to-face and virtual settings that can best prepare students for competition success no matter the format. Before March 2020, face-to-face preparation was the typical coaching approach. Best practices for in-person meetings required a set meeting time, mandatory attendance, peer mentoring, installing a sense of commitment, and developing a strong team culture. April 2020 things changed for everyone requiring the traditional competition practices to pivot. This pivot necessitated virtual faculty coaching which required rapid adaptation to technologies with both positive and negative outcomes. Virtual meeting technology made it possible to continue regularly scheduled meetings while honing virtual presentation skills for students and faculty, skills that will be in continued demand. However, the virtual component had a negative impact on the culture and relationship aspects of the team. Students were not together in a single physical space which reduced the informal social network. Additionally, it was more difficult for coaches to build relationships with students and provide informal support. The experience showed that in the short term, virtual coaching can work, but in the long-term face-to-face interaction is critical to relationship and culture building.

**Dr. Hasan Uvet, Assistant Professor of Supply Chain Management, Georgia Gwinnett College**  
**Lt. Col. John Dickens, Air Force Institute of Technology**  
**Lt. Col. Aaron Glassburner, Air Force Institute of Technology**

***Examining the Impact of Logistics Service Quality Dimensions on Customer Satisfaction***

Considering significant growth in e-commerce (approximately \$4.3 trillion in worldwide sales in 2020), logistics services to satisfy these high demands become more critical than ever. The feature of online transactions needs a comprehensive approach to assess quality of service for customer retention. So, the significance of logistics services from ordering process to delivery of products shifted from cost improvements to gain a competitive advantage and retain the customers. Due to the critical importance of logistics services towards value creation and overall customer satisfaction, this study investigates the impact of logistics services quality (LSQ) features on customer satisfaction within a business-to-consumer e-commerce context based on the lens of Expectation-confirmation Theory. As a LSQ dimensions, we built comprehensive model that consists of timeliness, order condition, order accuracy, information quality, order availability, ordering procedures, and second-order construct of order assurance quality. An online survey-

based approach was used to collect data from consumers about their online shopping experiences. Participants responded to questions regarding these LSQ dimensions and customer satisfaction relative to their previous online shopping experiences. After screening, a total of 427 responses were used for data analysis. Confirmatory factor analysis and covariance-based structural equation modeling was conducted using IBM SPSS AMOS 28. Results suggest that ordering procedures in online shopping have a higher impact than other LSQ features for customer satisfaction. Addition to other significant LSQ features on customer satisfaction, the newly defined second-order construct for order assurance quality was found the second most impactful dimension for customer satisfaction.

**Dr. Kinga Varga-Dobai, Associate Professor, Georgia Gwinnett College**

### ***Culturally and Emotionally Sustaining Literacy Practices in Teacher Education***

In this session the presenters will discuss how the purpose of writing instruction has expanded in Teacher Education a result of the needs and demands of COVID-19. Presenters will showcase various multigenre storytelling projects such as the Literacy River and Identity Stories as well as other practical writing activities that have been included in the writing curriculum as a form of sustaining literacy practice.

Working within neoliberal educational systems that emphasize high-stakes interventions, accountability, and measurable outcomes, teacher educators, and teachers in general, face emotional burnout (Lloro-Bidart & Semenko, 2017). During the pandemic it became even more pertinent to implement pedagogies and practices that support social and emotional well-being. This presentation will draw on theories of the Care of the Self (Foucault, 1986), the work of teacher education scholars on *critical love* (Price-Dennis and Sealey-Ruiz, 2021), as well as concepts of mindfulness (Kabat-Zinn, 1991), to position our work as part of a culturally sustaining curriculum (Django, 2012). Presenters will argue that storytelling as a pedagogical tool allows for meaningful literacy experiences. The presentation will outline how storytelling became a form of care and “soul service” (Foucault, 1986) to “attend to oneself” and others. A teaching pedagogy of thinking with stories encouraged reflexivity as we experimented with expressive writing (Pennebaker & Smith, 2016) on our journey of sustaining literacy.

## 2022 Symposium Quick Facts

### Participating Institutions

8S Labs.....	Mumbai, India
Air Force Institute of Technology.....	Wright-Patterson Air Force Base, Ohio
Centrum Pucp, Pontificia Universidad Católica del Perú.....	Lima, Peru
Clayton State University.....	Morrow, Georgia
Dalton State College.....	Dalton, Georgia
Food and Drug Administration.....	Silver Spring, Maryland
Georgia Gwinnett College.....	Lawrenceville, Georgia
Georgia State University.....	Atlanta, Georgia
Georgia Southwestern State University.....	Americus, Georgia
Gwinnett School of Mathematics, Science, and Technology.....	Lawrenceville, Georgia
Jackson State University.....	Jackson, Mississippi
James Madison University.....	Harrisonburg, Virginia
Johns Hopkins University.....	Baltimore, Maryland
Just Talk Counseling and Consulting.....	Lawrenceville, Georgia
Kamphaeng Phet Rajabhat University.....	Nakhon Chum, Thailand
Kennesaw State University.....	Kennesaw, Georgia
Kwansei Gakuin University.....	Nishinomiya, Japan
Marshall University.....	Huntington, West Virginia
Old Dominion University.....	Norfolk, Virginia
SOAS University of London.....	London, United Kingdom
Trinity University.....	San Antonio, Texas
University of West Georgia.....	Carrollton, Georgia

*Number of concurrent sessions*

17

**Number of authors**

118



The Business, Economic, and Applied Research Center and The Center for Teaching Excellence are grateful for the participation and support from the University System of Georgia and Georgia Gwinnett College.

The BEAR Center and the CTE extend special thanks to:

Keynote Speaker .....Dr. Martha “Marti” Venn  
Closing Ceremony Speaker..... Regent José Perez  
GGC President ..... Dr. Jann Joseph  
GGC Provost..... Dr. George Low

### Acknowledgements

Cover Photo by ..... Rod Reilly  
Cover Layout based on a design by ..... Ben Hines  
Administrative Support..... Candice Stephens and Sharon Brownlow  
CTE Website Support ..... Michael D. Smith  
Kaufman Library Support..... Catherine Downey and Joye Cauthen  
Dean of the GGC School of Business.....Dr. Tyler Yu  
Director of the GGC CTE..... Dr. Mei Miranda Zhang  
GGC School of Business Dean’s Office Support .....  
.....Dr. Nannette Napier, Dr. Ben Akins, and Dr. Jason Delaney  
BEAR Center Directors .....  
.....Dr. Mark Partridge, Dr. P. Wesley Routon, and Dr. Tracey Schaller  
Business and Accounting Support .....  
.....Frank Hardymon, Donell Nixon, Ruth Berger, and Vanessa Snavelly  
.....Samantha Paul, Mallorie Seibert, Tolulope Farinu, and Prem Prakash Patel  
Call for Submissions External Distribution Support .....  
.....Dr. Juan Carlos Sosa Varela, Dr. Mario Gonzalez-Fuentes, and Dr. Brian Rutherford  
..... University of West Georgia Office of Undergraduate Research  
..... University of North Georgia Center for Undergraduate Research