44TH ANNUAL CONFERENCE

SOUTHWEST EDUCATIONAL RESEARCH ASSOCIATION

FEBRUARY 3 -5, 2021

Southwest Educational Research Association

www.sera–edresearch.org

2021 Annual Meeting Program and Abstracts

February 3 - 5, 2021

SERA Foundation

As part of the celebration of SERA's 20th anniversary, the Executive Council invited all members to contribute to the Memorial Fund's 20/20 Vision (now called the SERA Foundation) by contributing $20.00 to the fund during the association's 20th year. This fund has been designated as a resource for providing services to the membership with priority given to the needs of graduate student members.

To maximize the long–term potential for the fund, the Executive Council took the position that a substantial fund be established so that "interest only" disbursements may be made from the fund without depleting the fund's principal. In 2006, the foundation made its inaugural award.

Your modest gift of $20.00 (or any amount you wish) will greatly help in achieving the foundation's vision. Contact Kim Nimon (Kim.Nimon@unt.edu) for further information or to make contributions.

A Brief History of SERA

By John J. Hedl, Jr. - February 16, 2009

Editor's Note. John J. Hedl, Jr. was one of the Founders of SERA in 1977, was the third President of SERA, had attended every previous annual meeting until his death, and served as SERA Historian. John earned his Ph.D. in the psychology department at the Florida State University. He subsequently accepted appointment to the allied health faculty of the UT Southwestern Medical Center at Dallas. He later rose to the rank of Professor of Health Education and Research, and served for many years as a department chairman prior to his retirement. He was a licensed psychologist (TX #20959) for many years. His research involved issues such as test anxiety. At the 1998 annual SERA meeting, the SERA Board created the association's first service award— the John J. Hedl, Jr. Lifetime Service Award—and announced John as the first recipient of the award. John passed away in June 2014.

The first meeting related to SERA was held in spring 1977, at the Faculty Club on the campus of Southern Methodist University in Dallas. The basic question was "Did we want or need a state or regional research association?" and "Should it be along the lines of AERA?" After considerable discussion the answer to the first question was "Yes," but a resounding "No" to the second. We wanted a kinder, gentler AERA. The first SERA meeting followed in 1978 in Austin. Our original goals were to:
1. Conduct a meeting for researchers to present and discuss current research;
2. Provide an opportunity to actually learn new things;
3. Provide an opportunity for professional networking;
4. Provide a forum for mentoring future educational researchers and SERA leaders (graduate students); and
5. Provide a place to have some fun.

Have we met these goals? I would say "Yes" to all 5. Next year, we celebrate well past our third decade of meeting, and we are still going strong. SERA is a terrific place to meet and talk with researchers of all likes. The social events are a great way to network and have fun. Of our 30+ presidents, I believe at least 11 started as graduate students. In fact, 6 of the last 7 started that way with SERA.

And I believe strongly that we have created a sense of family. As such, we rejoice in the professional and personal successes of our members, and we grieve when we lose our long-standing friends. In recent years, there have been several that have left us for a better place.

And so remembering them and our current membership, we continue to strive to improve things for our membership. Recent changes include:
>   --We have added website updates;
>   --We have improved ways to submit papers and receive notification;
>   --We have added a graduate student representative to the executive council;
>   --We have restructured the executive council and added an executive director;
>   --The treasurer is now appointed as well.

What does it take to become involved? (Remember no one is paid.) Just volunteer your time. It now takes a small army to conduct our annual meeting. Attend the social functions, meet and greet. Talk with our council members, and let them know your interests. That's how easy it is to become involved.

On a personal note, I have never missed a SERA meeting in its history. I receive too much from my association on both a professional and personal level. SERA is full of terrific colleagues and friends. I hope to see everyone next year at our annual meeting. Mark your calendars now.

SERA Bruce Thompson Outstanding Paper Award

In 2012, the SERA Board renamed the SERA Outstanding Paper Award the "SERA Bruce Thompson Outstanding Paper Award," in recognition of Bruce's career-long contributions to the Southwest Educational Research Association.

Bruce Thompson was among the first members of SERA, and continuously attended 35+ SERA conferences. Bruce has served as an At-Large Member of the SERA Board. Prior to the time that SERA combined the Program Chair role with the office of President-Elect, Bruce first served as a Program Chair, and later as SERA President. In the early 1990s, Bruce served as Editor of the SERA book series, which was an edited volume containing selected SERA conference papers chosen through peer review and was published by a commercial publisher. Bruce began service as the inaugural SERA Executive Director when the By-Laws were amended in 2000 and this position was first created. Bruce continues to serve as SERA Deputy Historian. In 2006 Bruce was awarded the SERA John J. Hedl, Jr. Lifetime Service Award. Bruce was three times a co-recipient of the SERA Outstanding Paper Award, an award for which officers of the association are not eligible during service in these elected or appointed roles.

Before his retirement, Bruce Thompson was a Distinguished Professor and College Distinguished Research Fellow of Educational Psychology, and Distinguished Professor of Library Sciences, Texas A&M University, and Adjunct Professor of Allied Health Sciences, Baylor College of Medicine (Houston). He was co-editor of the Teaching, Learning, and Human Development section of the *American Educational Research Journal (AERJ:TLHD)*, and past editor for 9 years of *Educational & Psychological Measurement*, the series, *Advances in Social Science Methodology*, and two other journals. He is the author of 216 articles, author/editor of 11 books, including the recently published *Foundations of Behavioral Statistics* and *Exploratory & Confirmatory Factor Analysis*, and the author of 20 book chapters. His contributions have been especially influential in moving the field forward as regards greater emphasis on effect size reporting and interpretation and promoting improved understanding of score reliability.

Awards

SERA BRUCE THOMPSON OUTSTANDING PAPER WINNERS

2021	Noah Padgett
2020	Gang Zhu
2019	Ehsan Ghasemi, Hansel Burley & Parviz Safadel
2018	Emma Bullock
2017	Peter Boedeker
2016	Katherine L. Wright & Tracey S. Hodges
2015	Kara M. Styck & Grant Morgan
2014	Kary A. Johnson
2013	Grant Morgan & Aaron Baggett
2012	Forrest C. Lane & Robin K. Henson
2011	Celia M. Wilson
2011	Anthony J. Onwuegbuzie, Rebecca K. Frels, Nancy L. Leech, & Kathleen M. T. Collins
2010	Terence Fung
2009	Prathiba Natesan, Patricia F. Roberts–Walter, Gwendolyn Webb–Johnson, & Norvella P. Carter
2008	Susan Troncoso Skidmore
2007	Meixia Ding & Xiaobao Li
2006	Carmen Fies
2005	Helenrose Fives & Michelle M. Buehl
2004	Anthony J. Onwuegbuzie
2003	Anthony J. Onwuegbuzie & Nancy Leech
2002	Lilia M. Ruban
2001	Stephen Caldas & Carl Bankston, III
2000	Bruce Thompson & Colleen Cook
1998	Katherine Friedrich
1996	Shari L. Davis
1995	Debra A. King
1994	Bruce Thompson, John Wasserman, James Gyurke, Kathleen Matula, & Blaine Carr
1993	Patricia Synder, Bruce Thompson, & James David Sexton
1992	Dianne L. Taylor & Ira E. Bogotch
1989	H.C. Waxman, Y.N. Patron, S.L. Knight, E. W. Owens, & K. Ebner
1988	Stephanie L. Knight
1987	P.A. Alexander, M.K. Tallent, V.L. Willson, & C.S. White
1986	Mary K. Tallent
1985	Walter C. Parker
1984	Ralph A. Hanson
1983	William C. Kyle, Jr., & James A. Shymanasky

SERA EXTENDED SERVICE AWARD

2020	Forrest Lane
2019	Lesley Leach
2018	Shirley M. Matteson
2016	Susan Troncoso Skidmore
2015	Kim Nimon
2014	Mary Margaret Capraro
2013	Linda R. Zientek
2012	Gilbert Naizer
2010	Sonya Carr
2007	Kathleen Cage Mittag

Southwest Educational Research Association
2020-2021
Executive Council

President
Grant Morgan

President–Elect & Program Chair
Celia Scott

Immediate Past President
Shirley Matteson

Treasurer
Kim Nimon

Secretary
Lesley Leach

Deputy Treasurer
Grant Morgan

Graduate Student Advisors
Sandra Acosta
Lesley Leach
Michelle Peters

Graduate Student Representative
Rebecca DeLozier

Executive Director Emeritus/Historian
Bruce Thompson

Deputy Historian
Victor Willson

Newsletter Editor
Wendi K. Zimmer

Director of Information Technology
Susan Troncoso Skidmore

Council Members–At–Large

Faye Bruun	Sandra Nite	George Moore
Emma Bullock	Marsha Sowell	Michelle Peters
Lynn Burlaw	Aaron Zimmerman	Juanita Reyes

Executive Director
Linda Zientek

Presidential Appointments

Audio-Visual
Aaron Zimmerman

New Faculty Mentor Program and Early Career Research Grants
Michelle Peters
George Moore
Chrissy Cross

Program Division Chairs – 2021

The Division Chairs are instrumental in making the program a success and deserve special recognition. They have proposals peer–reviewed, write acceptance letters, forward reviewer commentary, and serve as primary points of contact. This year's division chairs are:

I.   Educational Administration, Policy, Leadership, & Program Evaluation

Ken Helvey
Texas Wesleyan University
jkhelvey@txwes.edu

Kevin E Kalinowski
Sam Houston State University
kevin.kalinowski@shsu.edu

II.   Instruction, Learning & Cognition

Laura Isbell
Texas A&M University –
Commerce
Laura.Isbell@tamuc.edu

Sandra Nite
Texas A&M University
snite@math.tamu.edu

III.   Methodology, Measurement & Evaluation

Tommy De Vaney
Southeastern Louisiana
tdevaney@selu.edu

Lisa Dryden
Texas Wesleyan University
ldryden@txwes.edu

IV.   Teachers & Teacher Education

Bob Elliot
Eastern New Mexico University
Robert.Elliott@enmu.edu

Julia Yoo
Lamar University
hyoo@lamar.edu

V.   Special Populations & Counseling

Nara Martirosyan
Sam Houston State University
nxm021@SHSU.EDU

Monica Wong-Ratcliff
Texas A&M University – Kingsville
Monica.Ratcliff@tamuk.edu

VI.   Graduate Student Seminars for Work in Progress

Julie Smit
Texas Tech University
julie.smit@ttu.edu

Audrey Meador
West Texas A&M University
ameador@wtamu.edu

Ida Joiner
Texas Wesleyan University
iajoiner@txwes.edu

JOHN J. HEDL, JR. LIFETIME SERVICE AWARD

2018   Sonya Centanni Carr
2012   Victor L. Willson
2010   Kathleen Mittag
2006   Bruce Thompson
2005   Vince Paredes
2001   Tommie–Ann Hill Van Natter
1998   John J. Hedl, Jr.

SERA Past Presidents

Shirley Matteson	2019-20	Arturo Olivarez	1998-99
Forrest Lane	2018-19	Max Martin	1997-98
LaVonne Williams-Fedynich	2017-18	Mark Lewis	1996-97
Pratheba Natesan	2016-17	Larry G. Daniel	1995-96
Shirley Matteson	2015-16	Mary K. Tallent-Runnels	1994-95
Susan Troncoso Skidmore	2014-15	Stephanie L. Knight	1993-94
Stacey Edmondson	2013-14	Elaine Jackson	1992-93
Kim Nimon	2012-13	Victor L. Willson	1991-92
Willam A. Jasper	2011-12	Glynn D. Ligon	1990-91
Linda R. Zientek	2010-11	Hersholt C. Waxman	1989-90
Mary M. Capraro	2009-10	Patricia A. Alexander	1988-89
Robert M. Capraro	2008-09	Michael J. Ash	1987-88
Gilbert Naizer	2007-08	Deberie L. Gomez-Grobe	1986-87
J. Kyle Roberts	2006-07	Claire Ellen Weinstein	1985-86
M. Janine Scott	2005-06	Bruce Thompson	1984-85
Kathleen Cage Mittag	2004-05	Jon J. Denton	1983-84
Ron McBride	2003-04	Douglas M. Brooks	1982-83
Randall E. Schumacker	2002-03	John J. Hedl Jr.	1981-82
Dianne Taylor	2001-02	Wayne R. Applebaum	1980-81
Vince Paredes	2000-01	Robert M. Caldwell	1979-80
Nancy Martin	1999-00		

Foreword

As President of the Southwest Educational Research Association (SERA), I would like to warmly welcome you to the 44th Annual Conference. We have over 375 members, and there will be approximately 188 research presentations, workshops, symposia, and innovative sessions at the 2021 conference. Plan to attend as many sessions as possible to take advantage of the wide variety of learning opportunities.

SERA is a professional regional education association that is dedicated to advancing the field of educational research. The SERA Annual Conference offers an excellent forum for attendees to share their research findings with SERA members from across the Southwest and beyond, to network with colleagues, and to form collaborations with researchers in their field. The association takes pride in its intimate and nurturing environment that supports both researchers and practitioners, novice and experienced. SERA also offers fantastic experiences for graduate students and works hard to ensure that students have a positive conference experience.

Gregory Hancock, Professor and Director of the Measurement, Statistics, and Evaluation program at University of Maryland, is the Presidential Invited Speaker on Thursday. I also encourage you to consider the three ticketed workshops that are available at various times on Wednesday. The workshops span an array of important topics that may be of interest to you in your research and professional pursuits. More information about these sessions can be found in the front matter of the program.

In light of the unprecedented conditions under which the SERA 2021 conference is taking place, I would especially like to thank *Linda Zientek, Susan Skidmore*, and *Terra Gullings* for their efforts to oversee the registration system and/or conference host site. Enormous appreciation is also extended to our President-Elect/Program Chair *Celia Scott* for organizing and compiling this year's conference program; to *Wendi Zimmer* who serves as our SERA Newsletter editor; to Executive Director *Linda Zientek* who keeps us updated throughout the year; to Historian and Executive Director Emeritus *Bruce Thompson* who provides us with a historical perspective; to SERA "Trinket and Program Poster Maven" *Mary Margaret Capraro*; and to all SERA board members. Graduate student participation in SERA continues to increase and many thanks are extended to the graduate student representative, *Rebecca DeLozier*. We also extend a special "thank you" to our Division Chairs and the numerous proposal reviewers who assisted in the proposal review process.

Thank you for choosing to take part in the 2021 SERA Annual Conference. We are glad you are here and look forward to sharing this experience with you. Enjoy!

Grant B. Morgan
SERA President

The Program

There were an incredible number of diverse proposals submitted and accepted this year! For the 2021 virtual conference, the Program is organized by synchronous and asynchronous sessions and is further organized according to session type and Division.

For synchronous sessions, the schedule is provided on the next page, followed by program highlights on pages 4 - 5. The first session on Wednesday begins at 1:00 p.m. On Thursday and Friday mornings, sessions begin at 8:30 a.m. and are 1.5 hours in length. There is a 5-minute break between sessions. Session IDs begin with a letter that signifies the day of the week the session is offered. For example, "W1.2" is the second session in the first time slot on Wednesday.

Our Presidential Invited Speaker is Professor Gregory Hancock, and his presentation on Thursday immediately follows the Virtual Luncheon and Open Business Meeting. The Fireside Chat on Thursday afternoon is for graduate students only and is an excellent opportunity to visit with Professor Hancock in an informal setting; students are welcome to ask profession or education-related questions or inquire about topics of interest.

The graduate student meeting on Thursday begins at 5:00 p.m. and provides graduate students the opportunity to meet people from various institutions of higher education and collaborate with students who may have similar research interests. During the meeting, SERA graduate student representatives are elected.

This year, Divisions I – V and some free Workshop presentations are asynchronous. All asynchronous presentations were pre-recorded and uploaded to the conference host site. As a result, conference participants may view the pre-recorded sessions at any time during the conference.

I hope you enjoy SERA and the opportunity to share research and form collaborations with researchers in your field. SERA is dedicated to improving research, and with this goal in mind, excellent ticketed research training sessions are offered on Wednesday. Descriptions of these sessions are provided on pages 9 - 10. Don't forget to check out and attend the various free workshops and symposia scheduled throughout the program.

Thank you for attending and supporting SERA!

Celia Scott
SERA President–Elect & Program Chair

SPECIAL NOTES ABOUT THE VIRTUAL CONFERENCE

ASYNCHRONOUS SESSIONS…are listed by *Division* beginning on page 42 of the program. Asynchronous *Workshops* are listed following the Division papers.

ASYNCHRONOUS SESSIONS…were pre-recorded and are available to view on the conference host site, starting February 3, 2021, for registered participants.

SYNCHRONOUS SESSIONS…times and dates are listed in the program, beginning on page 11 of the program.

SYNCHRONOUS SESSIONS…prior to the conference, registered participants will receive, via email, links to access the synchronous sessions.

SYNCHRONOUS SESSIONS…will be held using Zoom as the video conferencing platform.

SYNCHRONOUS SESSIONS…some synchronous sessions will be recorded and posted to the conference site at the conclusion of the conference.

SERA REPOSITORY… hosts many of the papers and presentations for the conference.

Synchronous Session Schedule

Wednesday

10:00a – 12:00p	Training Session 1: (W0.1 Ticked Required)
12:30p – 2:30p	Training Session 2: (W0.2 Ticked Required)
3:00p – 5:00p	Training Session 3: (W0.3 Ticked Required)
1:00p – 2:30p	Sessions (W1)
2:35p – 4:05p	Sessions (W2)
4:10p – 5:40p	Sessions (W3)

Thursday

8:00a – 5:00p	Coffee Break Collaborations (T0.1)
8:30a – 10:00a	Sessions (T1)
10:05a – 11:35a	Sessions (T2)
12:00p – 1:00p	Virtual Luncheon and Open Business Meetings (T3.0 BYOL)
1:05p – 2:05p	Presidential Speaker – Professor Gregory Hancock (T3.1)
2:10p – 3:10p	Fireside Chat with Gregory Hancock – Graduate Students Only (T4.1)
3:15p – 4:45p	Sessions (T5)
5:00p – 6:00p	Graduate Student Meeting & Election of Representatives (T6.1)

Friday

8:00a – 1:00p	Coffee Break Collaborations (F0.1)
8:00a – 8:30a	Graduate Leadership Council Meeting (F0.2)
8:30a – 10:00a	Sessions (F1)
10:05a – 11:35a	Sessions (F2)
11:40a – 1:10p	Sessions (F3)

Program Highlights

An important goal of the SERA is the mentoring of graduate student members. Several sessions and events have been planned that should be of *special interest* to the SERA *graduate student* members.

The Annual Luncheon and Open Business Meeting (Thursday, 12:00p –1:00p) The luncheon includes announcement of the Outstanding Paper competitions.

Presidential Invited Address (T3.1 Thursday, 1:05p – 2:05p) immediately following the luncheon.

Fireside Chat Professor Gregory Hancock (T4.1 Thursday, 2:10p – 3:10p) ***Graduate Students Only.*** This meeting allows students an opportunity to visit with the Presidential speaker in an informal setting.

Graduate Student Meeting (T6.1 Thursday, 5:00p – 6:00p) This meeting is an opportunity to discuss student concerns and elect the 2021 – 2022 graduate student representative to the SERA Executive Council. Graduate student representative to the Executive Board and university-level representatives comprise the Graduate Leadership Council.

Graduate Leadership Council Meeting (F0.2 Friday, 8:00a – 8:30a)

Graduate Student Division VI Paper Sessions
There are 74 graduate student Division VI paper sessions included in this year's program. Each Division VI paper features presentations of **works in progress** by graduate students followed by feedback from an experienced faculty member Discussant.

The following workshops may be of special interest to **graduate student members**. These sessions are open to all SERA members.

Workshop - Expectations in Your First two Chapters of the Dissertation: A Guide for Doctoral Students	*W1.3*
Challenges and Benefits of Undertaking a Three-article Dissertation	*T2.6*
Finding a Job in Academia: What to Expect and How to be Successful	*T5.3*
APA 7th edition: The "Big 10"	*p.68*
Lost in a Strange Land: Taking Ownership of Your Dissertation Journey	*F2.3*

SERA Junior Faculty Mentoring Initiative Part 1 & 2

Part 1: Thursday, 8:30a – 10:00a (Session T1.3)

Part 2 Thursday, 10:05a – 11:35a (Session T2.4)

Michelle Peters
Tonya Jeffery

Presenter will share the rationale for the initiative, describe the program purpose and goals, and explain the application process. Interested persons will have an opportunity to ask questions and meet potential mentors/mentees.

An important initiative of the SERA is the mentoring of recent graduate and early career members. A number of sessions and events have been planned that should be of *special interest* to the SERA *recent graduate and early career* members.

The Annual Luncheon and Open Business Meeting (Thursday 12:00p – 1:00p). The luncheon includes the Outstanding Paper competition.

Presidential Invited Address (Thursday 1:05p – 2:05p) immediately following the luncheon.

Be sure to join our **SERA Early Career Mentoring Group** on **LinkedIn**.

The following sessions may be of *special interest* to the SERA *recent graduates* and *early career* members. These sessions are open to all SERA members.

Teaching Online: Challenges and Instructional Best Practices	*W3.3*
SERA Junior Mentoring Initiative – Part I	*T1.3*
SERA Junior Mentoring Initiative – Part II	*T2.4*
A Statistics Refresher for Faculty and Non-Faculty: Part I	*T1.4*
A Statistics Refresher for Faculty and Non-Faculty: Part II	*T2.5*
How to use Simulation Methods to Conduct Power Analysis	*T1.5*
But Does it Actually Matter? A Comparison of Parametric vs. Nonparametric Designs	*T1.6*
Using Reflexivity as Rigor in Qualitative Research	*F1.5*
Leveraging the Opportunities of Mixed Methods in Systematic Review: Introduction to Systematic Mixed Studies Review	*F2.4*

Division VI Discussants

Session Discussants are indicated in the program and are synchronous. Discussants will keep track of the time for presenters and introduce each presenter in the session. It is **imperative** each speaker be allotted the designated time (**12 – 13 minutes per speaker**); so, the time–keeping duty is essential. Discussants may want to delay questions for all presentations to the end of the session.

In addition, presenters should remain in the order in which they appear in the program. This will allow conference attendees to hear the papers of particular interest in various sessions.

Name	Institution
Emma Bullock	Sam Houston State University
Faye Bruun	Texas A&M University Corpus Christi
Lynne Burlbaw	Texas A&M University
Julie Combs	Sam Houston State University
Chrissy Cross	Stephen F. Austin State University
Matthew Fuller	Sam Houston State University
Bill Jasper	Sam Houston State University
Tonya Jeffery	Stephen F. Austin State University
Kary Johnson	Texas Wesleyan University
Forrest Lane	Sam Houston State University
Audrey Meador	West Texas A&M University
Grant Morgan	Baylor University
George Moore	Sam Houston State University
Juanita Reyes	Tarleton State University
Celia Scott	Texas Wesleyan University
Susan Troncoso Skidmore	Sam Houston State University
Julie Smit	Texas Tech University

Thank You

A special "thank you" to the division chairs and proposal reviewers for dedicating their time and expertise in the review process, the SERA Board for reviewing the program and helping run the conference, to Linda Zientek for managing the proposal submission system and her guidance throughout the program development stages, to Susan Skidmore for coordinating the conference registration system, and to Terra Gullings for her direction and expertise in organizing, formatting, and creating the conference host site.

SERA 2021 Presidential Invited Address
Gregory Hancock

Stop Being So Mean!: Complementary Analytical Methods for Research Questions Focused On Variability

       Gregory R. Hancock is Professor, Distinguished Scholar-Teacher, and Director of the Measurement, Statistics and Evaluation program in the Department of Human Development and Quantitative Methodology at the University of Maryland, College Park, and Director of the Center for Integrated Latent Variable Research (CILVR). His research interests include structural equation modeling and latent growth models, and the use of latent variables in (quasi)experimental design. His research has appeared in such journals as *Psychometrika*, *Multivariate Behavioral Research*, *Structural Equation Modeling: A Multidisciplinary Journal*, *Psychological Bulletin*, *Psychological Methods*, *British Journal of Mathematical and Statistical Psychology*, *Journal of Educational and Behavioral Statistics*, *Educational and Psychological Measurement*, *Review of Educational Research*, and *Communications in Statistics: Simulation and Computation*. He also co-edited with Ralph O. Mueller the volumes Structural Equation Modeling: A Second Course (2006; 2013) and The Reviewer's Guide to Quantitative Methods in the Social Sciences (2010), with Karen M. Samuelsen the volume Advances in Latent Variable Mixture Models (2008), and with Jeffrey R. Harring the volume Advances in Longitudinal Methods in the Social and Behavioral Sciences (2012).

       He is past chair of the SEM special interest group of the American Educational Research Association (three terms), serves on the editorial board of a number of journals including *Psychological Methods* and *Structural Equation Modeling: A Multidisciplinary Journal*, and has taught dozens of methodological workshops in the United States, Canada, and abroad. He is a Fellow of the American Educational Research Association, the American Psychological Association, and the Association for Psychological Science, and received the 2011 Jacob Cohen Award for Distinguished Contributions to Teaching and Mentoring by the American Psychological Association.

2-Hour Training Sessions
(Ticket Required)

Non-Randomized Groups: Implications and Strategies using Propensity Score Analysis
Forrest Lane

Group comparisons are common in educational research but results from these comparisons can be biased when individuals are not randomly assigned to the groups in question. Researchers may be familiar with ANCOVA, but this approach is not well-suited for quasi-experimental design. This workshop will demonstrate potential issues with non-random assignment and provide statistical alternatives using propensity score analysis (matching, inverse probability of treatment weighting). Participants will engage with heuristic data in SPSS and R.

Forrest Lane is an Associate Professor and chair of the Department of Educational Leadership at Sam Houston State University.

Managing Literature Reviews
Julie Peterson Combs

Academic authors frequently encounter frustrations and delays when writing literature reviews. In this interactive workshop, we will discuss strategies for (a) starting, (b) maintaining focus, (c) managing overwhelm, and (d) organizing materials. Participants will leave with several applications that can be used in their writing practices.

Julie Peterson Combs is Professor of Educational Leadership at Sam Houston State University where she directs one of the doctoral programs.

Do MORE than Just Finish: How to Thrive During the Dissertation Process and Write a Well-Funded, Award-Winning Dissertation that Propels You into A Sustainable Research Agenda and Career
Emma P. Bullock

As the winner of five major dissertation awards and six additional graduate student research awards while procuring over $20,000 in funding to support her dissertation scholarship, Dr. Emma Bullock, Ph.D. (2018 SERA Bruce Thompson Outstanding Paper Award) knows how to approach the dissertation process so you earn multiple job interviews (Dr. Bullock had 25 phone interviews and 10 on-campus interview requests in her last year of grad school) and propel your career. From conceptualization to defense and the job interview, Dr. Bullock will share how to effectively and efficiently select your committee, select your topic and research question(s), hone your research skills, write a literature review, pilot your ideas, build your academic network, procure funding, use the resources your school and professional organizations offer, write in 30 minute increments, present and defend your findings, solicit spectacular letters of recommendation, and apply for awards that will propel you into a successful job interview process that promotes your research agenda and future career. You do not need to settle for just finishing. Bring YOUR dissertation ideas and learn how to use the dissertation process as the means toward accomplishing your academic and professional dreams in this interactive and fun workshop.

Emma P. Bullock is an Assistant Professor in Mathematics Education at Sam Houston State University.

SCHEDULE OF SYNCHRONOUS SESSIONS

Wednesday, February 3

W0.1 Training Session	**10:00a – 12:00p**

Special Ticketed Event

Non-Randomized Groups: Implications and Strategies using Propensity Score Analysis
Forrest Lane

W0.2 Training Session	**12:30p – 2:30p**

Special Ticketed Event

Managing Literature Reviews
Julie Peterson Combs

W0.3 Training Session	**3:00p – 5:00p**

Special Ticketed Event

Do MORE than Just Finish: How to Thrive During the Dissertation Process and Write a Well-Funded, Award-Winning Dissertation that Propels You into A Sustainable Research Agenda and Career
Emma P. Bullock

W1.1 Paper Session	**1:00p – 2:30p**

Professional Development
Discussant: Faye Bruun

What is the Effect of Instructional Coaching on Teachers?
Joshua Hatfield ~ Sam Houston State University

In this study, the researcher will be collecting interviews of instructional coaches. The research will analyze the data and form conclusions. The researcher in a qualitative study like a seasoned instructional coach will ask questions, process responses, and ask follow up questions. The intent of this study is to determine what and how instructional coaches effect teachers' instruction. Defining the "how" instructional coaches affect teachers' instruction could inform practice and lead to changes that will improve the instructional coach role and teacher instruction.

"But Have We Had Enough?": An Exploratory Examination of Teachers' Exposure to Culturally Responsive Classroom Management Professional Development
Salandra Grice & Alexes Terry ~ Texas A&M University

As student populations continue to grow increasingly diverse, teacher education initiatives need to place a greater focus on preparing educators to effectively meet the needs of the culturally and linguistically diverse students (Banks, 2019; Gay, 2010). To address this issue, we propose a reimagining of culturally responsive teacher education in which teachers are immersed in not only authentic culturally responsive professional development sessions, but

also experience on-going coaching and support to help them gain, sustain, and maintain their new learning.

Differentiated Instruction and Student Achievement
Courtney Johnson ~ Sam Houston State University

Differentiated instruction (DI) has been suggested as the solution to educational inequalities and the solution to responding to students' achievement levels or mixed learning needs (Gamoran, 2009; Prast et al., 2018). Yet, teachers have reported not feeling well-prepared, nor fully understanding the concept of DI even after receiving district-level [in-service] DI professional developments (Gamoran, 2009; Pozas et al., 2020). Postsecondary institutions need to incorporate DI curriculum into their teacher preparation programs to train teachers regarding DI concepts and how to implement DI practices successfully within heterogeneous classes.

W1.2 Paper Session	1:00p – 2:30p

Pre-Service
Discussant: Laura Isbell

A Piece of Their World: Developing Cultural Competence in New Educators
Maiya Turner ~ Texas A&M University

Christopher Emdin states, "to be in touch with the community, one has to enter the physical places where students live, and work to be invited into the emotion-laden space the youth inhabit" (Edmin 2016, p. 21). Teacher preparation programs do not adequately prepare future educators to enter urban schools and create meaningful relationships with their students and the communities they serve (Ladson-Billings, 2000). This research study is designed to measure the impacts of meaningful, year-long professional development and support as it relates to developing cultural competence, culturally responsive teaching, and their use of reality pedagogy.

Examining Classroom Management Knowledge Development among Pre-Service Teachers: A Content Analysis
Karen McIntush, Syahrul Amin, Kacee Lambright & Miriam Sanders ~ Texas A&M University

A content analysis was conducted over course syllabi from six universities to evaluate the types of culturally responsive classroom management (CRCM) knowledge to which pre-service teachers are exposed. Two universities were chosen from the three categories: 1) Tier 1 Research universities 2) Regional Universities, and 3) Open Access universities. Syllabi were collected from the spring and fall 2020 semesters, coded by a team of researchers, and analyzed using five a priori codes based upon the CRCM theoretical framework. Findings will contribute to the corpus of research regarding teacher preparation in CRCM.

Teacher Noticing Practices of Experienced Mathematics Teacher Educators in Content Courses for Preservice Teachers
Michael Warren ~ Baylor University

Mathematics teacher educators (MTEs) are significant contributors to the preparation of effective K-12 teachers. However, there is limited knowledge of specific practices utilized by MTEs in courses intended to develop mathematics content and pedagogical knowledge in preservice teachers (PSTs). One effective teaching practice that has been the focus of recent research involves teacher professional noticing of students' mathematical thinking. The purpose of this research in progress is to examine the teacher professional noticing practices of expert MTEs in content courses designed for PSTs.

Middle School Teachers and the Experience of Learning to Teach: A Phenomenological Inquiry
Chau Nguyen ~ Texas Tech University

Rooted in the phenomenological philosophy and methodology, this inquiry explores lived experience of learning to teach of six middle school teachers. The investigation is guided by the following research question: What might be like for middle school teachers to live through the experience of learning to teach? Data for this inquiry are rich descriptions of lived experiences collected by means of in-depth interviews. The findings of this phenomenological investigation have implications for practice and research.

W1.3 Workshop	1:00p – 2:30p

Free Workshop

Workshop - Expectations in Your First two Chapters of the Dissertation: A Guide for Doctoral Students
Julie Smit, Shirley Matteson & Aaron Zimmerman ~ Texas Tech University

This workshop will focus on expectations and strategies for writing the first two chapters of the dissertation. It will begin by identifying and outlining the expectations of the essential components of the introduction. Next, we will outline the components of the literature review through a discussion of the genres of scholarly writing and choosing a theoretical framework(s). We will follow with providing a systematic tool, the literature crosswalk (Matteson & Warren, 2020), for organizing and synthesizing research. We will conclude our presentation with how the literature review can help researchers identify novel gaps in the literature, which inform the methodology, purpose, and research questions.

W2.1 Paper Session	2:35p – 4:05p

Pre-Service
Discussant: Celia Scott

Differences Between Novice Teacher Self-Efficacy by Educator Preparation Programs
Geronima Nale ~ Sam Houston State University

Teacher turnover causes a financial strain on school districts, but moreover, an academic strain on students. Researchers have concluded that comprehensive mentoring may provide

the support that novice teachers need to develop self-efficacy, and thus remain in the teaching field. This quantitative research in progress aims to determine the difference between the self-efficacy of novice teachers who receive comprehensive mentoring and those who are supported through traditional induction programs, using a new teacher survey created by the Texas Education Agency.

Secondary Pre-Service Teachers Knowledge and Self-Efficacy in Relation to Teaching Students with Disabilities
Donna Baumgardner ~ Tarleton State University

With the passage of Individuals with Disabilities Education Act and each reauthorization, more students with disabilities are receiving their education in inclusive classrooms. It is critical that teachers have special education knowledge to deliver content using differentiation to all students. Until recently, a medium sized public institution in Midwest United States did not include special education courses in their Teacher Education Preparation program for secondary pre-service teacher candidates. This has recently changed and led to question whether the addition of a special education course's effect upon special education knowledge and self-efficacy in teaching students with disabilities in an inclusive classroom.

Pre-Service Teachers Sense of Self-Efficacy in the Integration of Technology in their Prospective Classrooms: An Explanatory Sequential Mixed Methods Inquiry
Yazmin Muniz ~ Texas A&M University-Corpus Christi

Integrating technology in the classroom is an important component of teaching and learning. The Self- Efficacy Theory and the TPACK model will be used to examine the self-efficacy of pre-service teachers related to the integration of technology in their prospective classrooms. This two-phase explanatory mixed methods study will obtain quantitative results from a sample and then will follow up with a sub sample of individuals to probe those results in depth. The knowledge obtained from this study aims to provide insight as to how higher education institutions with teacher preparation programs can best accommodate the needs of future educators.

W2.2 Paper Session	**2:35p – 4:05p**

Instructional Strategies
Discussant: Lynn Burlbaw

Culturally Responsive Practices in Garden-based Education at Secondary School Campuses
Kimberly Jones ~ Texas Tech University

Student benefits from garden-based education (GBE) include improved emotional, social, and academic outcomes. Barriers to implementation of GBE such as costs, training and maintenance may be alleviated by inclusion of the greater community. Socio-cultural awareness ensures opportunities are relevant to all students. There is a gap in research regarding the implications of using culturally responsive practices in GBE. This collective, case study will explore secondary teacher perceptions and integration of culturally responsive pedagogy and their applicability in GBE. Semi-structed interviews and digital

stories will be thematically analyzed for insight into how the incorporation of culture in GBE benefits all students.

Secondary Science Teacher Use and Perceptions of Inquiry-Based Instruction
Stephen Gruber ~ University of Houston – Clear Lake

To best serve the future of our students, fill the needs of STEM employers, and compete in a global economy increasingly tied to STEM our education system needs to focus on teaching methodologies that improve student understanding at all levels. This study focuses on teacher the average use of IBL based on teacher perceptions and the barriers to the implementation IBL in everyday lesson activities. If we can gain a better understanding of how teachers perceive IBL we can begin to develop and implement plans to encourage its use to the benefit of all STEM students.

The Impact of Inquiry in the Social Studies Classroom on Short-term and Long-term Retention of Information
Brian Davis ~ Union University

In this age of instant access to information, increased scrutiny should be given to the process of thinking within historical context. How do we assess this new knowledge? This study investigates the effectiveness of one solution advanced by the National Council for Social Studies (NCSS), which is inquiry-based learning using the C3 Framework and Inquiry Design Models (IDMs). These IDMs emphasize the use of a compelling question and several supporting questions to scaffold the presentation of several primary and secondary sources to students, who use them to answer these over-arching questions and form historical meaning and relevance for themselves.

Examining Evidence-Based Instructional Strategies in Online Science Courses and the Success of Non-Traditional Students
Natandra Gradney ~ University of Houston – Clear Lake

Distance learning courses, such as hybrid, blended, and fully online options are in great demand as students from various backgrounds and experiences take advantage of the flexibility provided by these courses. On the other hand, student success and retention rates in these courses are low. Using an explanatory sequential mixed methods design, this study will determine if implementing effective instructional strategies within introductory level science distance learning courses will increase online student engagement, leading to student success in the course.

W2.3 Workshop	2:35p – 4:05p

Free Workshop

Authentic Student Samples to Guide edTPA© Conferencing
Laura Isbell ~ Texas A&M University-Commerce
April Sanders ~ Spring Hill College

This interactive workshop session will describe, model, and guide participants to use specific resources to conference with preservice teachers during their creation of edTPA© portfolios. Specifically, the presenters will use the system Reading Rubrics, that shows preservice

teachers how to understand the edTPA© portfolio rubrics, as a way to conference guide with preservice teachers in the drafting process when writing commentary for their portfolio. Authentic conferences examples will be used to demonstrate this method.

W3.1 Paper Session	4:10p – 5:40p

Methodology
Discussant: Grant Morgan

Assessments of Statistical Literacy: A Literature Review
Hiroki Matsuo ~ Baylor University

Statistical literacy is one's ability to understand and evaluate statistical results to make personal and professional decisions (Wallman, 1992). Different frameworks were developed to explore the conceptual structure of statistical literacy (e.g., Gal, 2002; Watson & Callingham, 2003). Zieffler et al. (2008) commented on the importance of having reliable and valid measurements of statistical literacy along with its frameworks. This systematic literature review will examine the characteristics of existing instruments of statistical literacy and provide a comprehensive summary of each instrument. Potential approaches for future research will be discussed to finalize this project.

Comparison of Three Different Methods for Missing Data Estimation in Growth Curve Model: FIML, Multiple Imputation, MIPCA
Youngmin Kim ~ Texas State University

The present study aims to evaluate the performance of three different modern missing data estimation methods available for growth curve modeling ¬– full information maximum likelihood and two different multiple imputation strategies. As missing data estimation in growth curve model requires missing at (completely) random assumption, the result of three methods from violated data (i.e., missing not at random) would be investigated as well. The result of a Monte Carlo simulation study will provide methodological guidelines for practice of GCM under diverse missing data environments.

Explainable Artificial Intelligence: A Theory-Guided Genetic Programming Model for At-Risk Student Prediction
Ngocvan Bui ~ Sam Houston State University

The purpose of this experimental research is to investigate the efficacy of explainable artificial intelligence (XAI) implementing theory-guided genetic programming model for at-risk student prediction and retention improvement. The predictive model incorporates human-computer interaction theory, Fink's Taxonomy of Significant Learning, and evidence-based contributing factors. Purposive and volunteer sampling will be employed to select first-year freshman cohorts (i.e., control and experimental groups) enrolled in an online higher education program over a two-semester period. Educational data mining and feedback surveys are employed for data collection and analysis. Mean values and effect sizes will be reported at the .05 significance level.

Teacher DDDM Self-Efficacy in DDDM Anxiety, DDDM Teacher Practices, and the Role of Data Specialists: A Moderated Mediation Analysis of Teacher DDDM Practices
Kendra Nwosu ~ Texas Tech University

The face of education has changed over the past twenty years due to pieces of legislation such as No Child Left Behind (NCLB). With these new pieces of legislation comes high stakes testing, lower teacher efficacy, and the need for data driven decision making (DDDM). A teacher's level of comfort with math and statistics often determines their level of efficacy for DDDM. This study will determine if there is a difference between levels of teacher's DDDM efficacy when various factors are present using the DDDM Efficacy and Anxiety (3D-MEA) Inventory. The results of this study will inform teacher leaders on how to better support teachers with DDDM efforts.

W3.2 Paper Session	4:10p – 5:40p

Administration
Discussant: Audrey Meador

Culturally Responsive Leadership Practices in Principal Preparation Programs at Texas Public Universities
Jessica Williams ~ Sam Houston State University

The course syllabi at six principal preparation programs at the master's degree level in Texas will be examined to determine the extent to which culturally responsive terms and phrases were present in them. A content analysis of course syllabi for these programs from Fall 2018-Summer 2020 will be conducted using the Culturally Responsive Leadership Framework.

Turnaround Principals, Turnaround Schools
Deirdre Holloway ~ Sam Houston State University

The importance of school leadership is recognized by schools, yet questions concerning the most effective ways to prepare school leaders remain, especially in the area of turn around leaders (Lochmille and Chestnut, 2017). The purpose of this research-in-progress is to examine the effect of principal tenure average and the number of elementary schools earning a distinction designation in reading, math, and science.

Factors Impacting African-American Females to the Superintendency
Krystal Hawks ~ University of Houston - Clear Lake

Despite the dominance of females in the classroom, few have broken the "glass ceiling" to hold the highest position in K-12 education - superintendency (Cotter, Hermsen, Ovadia, & Vanneman, 2001; Glass, 2000). The governing body for education in Texas, the Texas Education Agency (TEA), identified 1,247 state school districts that were led by female school superintendents, but only eight, or less than 1%, identified as an African American women (TEA, 2014). With such a small population, there is a need to examine the

experiences these women have had as they serve in both rural and urban school districts not only in Texas, but in various regions across the United States (Tallerico, 2000).

Strategic Planning and Organizational Performance: A Mixed Methods Study of Strategic Planning Practices in Texas Public School Systems
Chris McDavid ~ University of Houston - Clear Lake

Utilizing a sequential explanatory mixed-method design, this study is intended to examine the differences in strategic planning practices used by high and low organizationally performing public school systems in Texas.

International Schooling in the United States: A Descriptive Study of a Burgeoning Industry
Amy Carter ~ Texas A&M University-Corpus Christi

An exploratory study in nature, the study seeks to describe the current landscape of international schooling inside the U.S. Additional research in this field is necessary, especially that dedicated to studying North America as a region.

W3.3 Workshop	4:10p – 5:40p

Free Workshop

Teaching Online: Challenges and Instructional Best Practices
Nara Martirosyan & D. Patrick Saxon ~ Sam Houston State University

The COVID-19 pandemic has affected the entire higher education system. The unexpected shift to fully remote instruction has created many challenges especially for those who are new to online teaching. In this live workshop session, presenters will discuss challenges associated with online teaching and offer evidence based practical strategies and recommendations for engaging students in online classes. Attendees will have an opportunity to ask questions and engage in a discussion on how to facilitate student learning and promote student engagement in a fully online environment.

Thursday, February 4

T0.1	8:00a – 5:00p

Coffee Break Collaboration

Join colleagues, old and new, in this come-and-go session. All are welcome to join this collaborative space for working, networking, or just hanging out.

T1.1 Paper Session	8:30a – 10:00a

Higher Education
Discussant: Susan Troncoso Skidmore

Veteran Transition Counseling and Academic Success
Christina McDonald ~ Tarleton State University

There is extensive research pertaining to the need for transitional support at higher learning institutions for student veterans who discharge from the military and enroll in college, often using their VA benefits while pursuing their education. In addition, much of the research supports the idea that this protected, and often under-served, group of students benefit from transitioning support services. Most institutions have implemented some form of Veterans Services and many institutions provide a Veterans Resource Center for assistance with advising, career counseling, peer support, tutoring, institutional information, community resources, and assistance with VA benefit processing. One gap in the research is the examination of veteran-specific transitional counseling and the impact on academic success for those student veterans that participate in the programming, specifically at (name retracted). The programming is based on the Schlossberg's Transition Theory (Schlossberg, 1981) that incorporates four main components that need to be assessed to assist in easing any transition. Those components include situation, self, support, and strategies.

Examining the Impact of Veteran-Centric Support on Retention and Completion Rates of Students Using Post-9/11 GI Bill
Dipal Parekh ~ University of Houston - Clear Lake

Higher education institutions are aware that veterans encounter many challenges during their transition from military to civilian life (Richman, 2017). Not all veteran students may be taking full advantage of all available resources due to lack of awareness or hesitation to ask for assistance since the military terminology, processes and procedures are very different from the civilian ways. This study will aim to examine the relationship between veteran-centric support services and challenges faced by veteran students, retention, and completion rates at four-year public institutions. Participants will be selected from a purposeful sample of veteran students using post-9/11 GI Bill.

Contextualizing Latinx College Students' Transition to Adulthood
Ali Luempert ~ Texas Tech University

Much of the extant research on young adulthood focuses on white, college attending, 18-29 year olds. However, Latino/a/x/Hispanic origin college students account for 20% of post-secondary enrollment and remain understudied. Research must attend to Latinx young adults unique experiences of the transition from adolescence to adulthood. This study uses a theoretically informed model to examine the intersections of biculturalism, familism, gender, and childhood economic pressure on Latinx young adults' ratings on the Markers of Adulthood and Inventory of the Dimensions of Emerging Adulthood. Data collected via web-based self-reports will be analyzed using structural equation modelling.

The Perception of Support Services for African American Male Student-Athletes at Division I University
Jimmie Smith Jr ~ University of Houston - Clear Lake

The purpose of this qualitative case study is to explore perceptions of the influences of student support services, and other factors that may contribute to African American male football players' ultimate success in academics, at a public Division I university. This study will explore the efficiency of academic support services on the academic improvement of African-American male student-athletes at Division I universities. The goal of this qualitative study was to explore perceptions of the influences of student support services and other factors that contributed to African American male football players' ultimate success in academics at a public Division I university. The procedures for the qualitative case study included all of the following steps. The researcher used archival data and contextual information from Ozarka University to determine the effectiveness of the support services for student-athletes. Furthermore, the researcher interviewed football student-athletes, tutors, the associate athletic director, and academic advisors individually via video-conference (Zoom). Additionally, the researcher collected physical artifacts such as pamphlets, handbooks, and articles about the academic support services for athletes at Ozarka University. Lastly, the researcher analyzed the number of student-athletes that graduated in the previous semester and Fall semester.

T1.2 Paper Session	8:30a – 10:00a

Higher Education
Discussant: Julie Combs

Understanding How Community Colleges Support the College Success of Foster Care Youth
Erika Herrera ~ Sam Houston State University

The intent of this qualitative intrinsic case study is to understand the perceptions of college-bound young adults who grew up in the foster care system regarding the individual's journey to college. The focus will be on the financial aspect of the student's college experience. Framed around the theory of intersectionality, the researcher intends to explore if possible combinations of oppression and injustice became a part of the student's lived experiences. Findings from this study can aid policy-makers, administrators, and educators in refining current support systems for foster care youth to increase enrollment and rate of graduation.

Mitigating Food Insecurities at Community Colleges
Deborah Strong ~ Texas A&M University-Texarkana

Research shows that food insecurities exist among college students. Research in this paper addresses the following question: What solutions exist for community college students experiencing food insecurities? Maslow's Hierarchy of Needs and Tinto's Institutional Departure Model provide a foundation for understanding food insecurity. A common way to support food insecurities is to provide food pantries on college campuses. However, students often do not take advantage of a food pantry. To address student needs, a food pantry serves to start a more comprehensive suite of services and resources. This paper investigates ways education leaders mitigate this critical issue in higher education.

An Analysis of Rural Community College Leadership During a Crisis
Anna Ingram ~ Texas A&M University-Texarkana

This paper seeks to examine the challenges facing rural community college leadership during a crisis to help maintain enrollment and college stability leading to student success including online access and fiscal initiatives. Leadership in urban community colleges have similar and very different concerns than leadership at small rural community colleges. Faced with ongoing concerns related to survival, rural leaders, in particular, must be aware of leadership styles and approaches to motivate staff and faculty to support issues ultimately leading to student success in the region.

T1.3 Special Session	8:30a – 10:00a
	Free Workshop

SERA Junior Mentoring Initiative – Part I
Michelle Peters ~ University of Houston - Clear Lake
Tonya Jeffery ~ Stephen F. Austin State University

The SERA Junior Faculty Mentoring Initiative will be discussed during the session. Presenters will share the rationale for the initiative, describe the program purpose and goals, and explain the application process. Interested persons will have an opportunity to ask questions and meet potential mentors/mentees. Part I will address teaching, research, and service expectations for junior faculty.

T1.4 Workshop	8:30a – 10:00a
	Free Workshop

A Statistics Refresher for Faculty and Non-Faculty: Part I
Renee Lastrapes ~ University of Houston - Clear Lake

Have you ever wondered what the research methodologist was talking about? This workshop will walk you through the basics of SPSS, how to download data into SPSS, and provide a refresher on some of the most used statistical analysis, such as descriptive statistics, t-tests, ANOVA, and Pearson's product moment correlations. Following the workshop, you will have access to all of my YouTube videos to use as tutorials whenever you need them.

Free Workshop

How to use Simulation Methods to Conduct Power Analysis
Grant Morgan & R Noah Padgett ~ Baylor University

The frequency with which applications of multivariate procedures, such as structural equation modeling or multilevel models, in the research literature and federal grant proposals has increased over the last decade. Furthermore, applied researchers often collect data for which model assumptions are not tenable, have missing values, or otherwise require challenging decisions. Determining the target sample size when planning studies that will use advanced statistical modeling can be difficult because existing power analysis programs simply cannot accommodate these complexities. In this workshop, we demonstrate how to use simulation methods in R to conduct power analyses for advanced but commonly used procedures.

Symposium

But Does it Actually Matter? A Comparison of Parametric vs. Nonparametric Designs

The objective of this symposium is to draw attention to the patterns of results between parametric and nonparametric statistical tests when using the same data set. The purpose is to provide indicators as to when decisions to reject or fail to reject change and to unpack the use of non-parametric effect sizes. Discussions will include the conventions of using parametric tests versus nonparametric tests and nonparametric effect sizes. The impact of distribution shape and transformations have implications for null hypothesis testing and magnitude of effect. The goal of this symposium is to unpack the argument of what we know about the use and applicability of non-parametric analyses and non-parametric effect size estimates.

STEM Camp Matters, Right? A Parametric versus Nonparametric Analysis Comparison
Macie N. Baucum & Robert M. Capraro ~ Texas A&M University

The parametric tests are often used as default without regard to distribution shape. Even more rarely do reviewers ask authors to directly state how they meet assumptions of normality. Undoubtedly, the obtained p-value will be different. However, the importance of the p-value is only important in that it is either less than or greater than the a priori alpha level. How does choice of parametric or non-parametric analytic technique impact that decision when the sample violates the assumption of normality?

The "Problems" of Problem Posing Effect Sizes
Mary Margaret Capraro & Julia E. Calabrese ~ Texas A&M University

The purpose for this paper is to explore how non-normal distributions impact the differences in the obtained null hypothesis test decision when comparing parametric and non-parametric analyses of the same non-normal data. The obtained effect size estimates will also be

computed and compared to determine how the interpretation of the effect might differ for non-normal distributions in both the parametric and nonparametric condition.

What Matters? Grades or Effect Size in a Calculus Class?
Joseph S. Webster & Andre Thomas ~ Texas A&M University

The purpose of this paper is to explore the impact of transformations of a large data set (N>100) from non-normal to normal distributions and the impact on parametric and nonparametric analytic choices. As part of the analyses, differences in, and the consequences for, parametric and nonparametric effect size interpretations will be discussed.

Symposium Discussant: *Kim Nimon ~ The University of Texas at Tyler*

T2.1 Paper Session	10:05a – 11:35a

STEM

Discussant: Juanita Reyes

Long Term Outcomes of a STEM Summer Program: A Phenomenology of Hispanics in their Career Pathways
Mayra Alvarado Ramirez ~ Texas A&M University-Corpus Christi

The United States is said to be the land of opportunity. However, not all members of society get the same opportunities. Access to education and well-paid careers such as those in the Science, Technology, Engineering, and Mathematics (STEM) are not equally distributed; Hispanics, Blacks, and Native Americas are under-represented in these fields when compared to Whites and Asians. The purpose of this research is to learn about the experiences of Hispanics who had an early interest in STEM careers (attended a STEM Summer Program while attending K-12 grades) to determine which experiences were conducive to their continued interest in STEM.

An Exploration of the Role of Drones to Engage High School Students to Pursue STEM in Higher Education
Ida Joiner ~ Texas Wesleyan University

The Rand Corporation wrote the "U.S. education and workforce systems could be failing to keep pace with the needs of the science, technology, engineering, and math (STEM) economy. Hence, leaving talented people out of the running for STEM jobs because they lack the proper training or credentials" (Gonzalez, Doss, Kaufman, Bozick, 2019, p. 2). The purpose of this quantitative research study is to examine the current research on the role of drones or unmanned aerial vehicles (UAV) in engaging high school students to pursue STEM majors in college.

A Meta-synthesis Study on the Effect of STEM Education on the Academic Success and Social-emotional Development of Gifted Students
Fatih Ozkan ~ Baylor University

STEM education, which is accepted as one of the most significant educational movements of recent years, is an approach that aims to educate gifted students in the disciplines of science,

technology, engineering, and mathematics as a whole. This research aims to provide a general framework of STEM education using the meta-synthesis method related to the work done for gifted students. In this study, a total of 60 studies between 2010 and 2020 will have been examined, and the findings will be presented under specific themes by going through the stages included in the meta-synthesis research method.

Creating Changemakers in Higher Education: A Study of Entrepreneurial Education, Intent, and Personal Attitudes
Ravi Brahmbhatt ~ University of Houston - Clear Lake

The purpose of this study is to examine the relationship between entrepreneurial education, personal attitudes, and entrepreneurial intent of college students participating in a college pitch competition. The three components of social innovation, social entrepreneurship, and particularly a concept entitled changemaking, align with mobilizing choice, talents, and skills to better the human experience (Coleman, 2018). Additionally, college graduates are looking for the development of "soft skills" to become more eminent in universities and industries alike, and experiential learning provides unprecedented opportunities to develop these skills for students.

T2.2 Paper Session	10:05a – 11:35a

At-Risk Students
Discussant: Chrissy Cross

Excellent and Equitable Outcomes for Grade 3 Students in High Poverty Urban Schools: Research in Progress
Allie Martin ~ Sam Houston State University

Excellent and equitable outcomes are not yet being achieved for every student in Texas public schools. The purpose of this research-in-progress is to examine high poverty urban schools experiencing a high success rate in closing the socioeconomic gap connected to the race-based achievement gap.

Understanding the Trauma of African American Youth in Poor Urban Areas
Nathaniel Riley Jr. ~ Texas A&M University-Texarkana

The social/emotional trauma of African American youth in poor urban areas is underserved in urban communities around America. The revised strain theory is applied to examine the impact of violent environments on African Americans. Youth that live in an aversive environment surrounded by deep poverty and racism battle a systemic problem that requires a unique multilayer approach of interventions. The historical context of African American intergenerational trauma is examined to understand the effects of social/emotional trauma on African American youth residing in poor urban areas. History and several studies review the association of racism, poverty, and community violence.

Academic Resilience in High Achieving, African American Students of Poverty: Factors Contributing to Academic Success
Beverly Jack-Webb ~ Texas A&M University-Texarkana

In spite of adversity, there are many African American students of poverty who are high achievers and labeled academically resilient. These students dismiss the concept of low income and low achievement being bound together. Based on research, there are various protective factors that contribute to their academic success. Two factors, teacher relationships and peer relationships, are significant in the lives of poor minority students. These factors help students develop resilience. This proposal explores the results of both factors and how they mitigate the potential effects of risk factors and contribute to the high achievement of African American students of poverty.

At-Risk High School Graduates and Their Experiences Post-Graduation: A Qualitative Case Study
Candace Pohl ~ Sam Houston State University

The researcher proposes to explore the post-graduation experiences of high school graduates who were classified as at-risk and their perceptions of individual and environmental factors that have influenced them, specifically graduates who lived separate from their biological parents during their high school years. This study will bring awareness to the challenges and barriers that may continue after high school graduation for many graduates as they navigate their transition into adulthood.

T2.3 Paper Session	10:05a – 11:35a

Higher Education
Discussant: Forrest Lane

Title IX Policy, Sexual Misconduct, and Due Process in Higher Education
Lisa Shen ~ Sam Houston State University

The purpose of this qualitative study is to examine Title IX administrators' experiences and processes implementing policies and practices for addressing sexual misconduct and due process on university campuses. In particular, the study will employee a phenomenological approach to examine how Title IX coordinators in Texas perceives their work in today's politicized environment of polarizing public opinion and shifting federal governmental guidance. Results from this research will highlight shared experiences and challenges faced by Title IX professionals and may provide practical guidance for higher education leaders in providing appropriate support for Title IX work and considerations for future policies.

Lessons Learned from the College Admissions Scandal
Jennifer Willis ~ Texas A&M University-Texarkana

The College Admissions Scandal rocked the world of admissions and highlighted opportunity for research, review, and evaluation of current admission practices. Further, the admissions scandal highlighted vulnerabilities in the admissions process that negatively impact students. College and university admissions policies and procedures are under heavy scrutiny due to a

recent federal investigation. This scandal provides an opportunity for review of the issues many students encounter when navigating the admissions process. The paper provides research regarding potential options for revitalizing admissions standards

Community Engagement and Social Activism Among College Preparatory Programs: Upward Bound Program
Jamila Clayton, Christopher Dudley & Cierra Sterling ~ Sam Houston State University

A need exists for studies focusing on how college preparatory programs are preparing their participants for community engagement and social activism. Although there are studies regarding the Upward Bound program, no studies were identified that focused specifically on the social justice component of the program. The purpose of this study is to explore community engagement and social activism development in college preparatory programs. This mixed-methods study will incorporate surveys and interviews to explore learning outcomes related to community engagement and social activism.

Primary Care Physician Needs in the Southwest U.S.: Relationships Between Geographic Locations of Study and Practice
Clair Collins ~ University of Houston

This study helps better define the distribution of primary care physicians in the Southwestern United States and how their training locations influence their final practice location. Data pulled from the American Medical Association Physician Masterfile from the last five years are analyzed using descriptive statistics, Chi-Square, and binary logistic regression. This study is a work in progress, so there are no current findings or conclusions to report at this time.

T2.4 Workshop	10:05a – 11:35a

Free Workshop

SERA Junior Mentoring Initiative – Part 2
Michelle Peters ~ University of Houston - Clear Lake
Tonya Jeffery ~ Stephen F. Austin State University

The SERA Junior Faculty Mentoring Initiative will be discussed during the session. Presenters will share the rationale for the initiative, describe the program purpose and goals, and explain the application process. Interested persons will have an opportunity to ask questions and meet potential mentors/mentees. Part II will expand into how to find and obtain grants that support faculty research.

T2.5 Workshop	10:05a – 11:35a

Free Workshop

A Statistics Refresher for Faculty and Non-Faculty: Part II
Renee Lastrapes ~ University of Houston - Clear Lake

Have you ever wondered what the research methodologist was talking about? This workshop will walk you through the basics of SPSS, how to download data into SPSS, and provide a

refresher on some of the most used statistical analysis, such as descriptive statistics, t-tests, ANOVA, and Pearson's product moment correlations. Following the workshop, you will have access to all of my YouTube videos to use as tutorials whenever you need them.

T2.6 Workshop	10:05a – 11:35a

Free Workshop

Challenges and Benefits of Undertaking a Three-article Dissertation
Shirley Matteson ~ Texas Tech University

Although not a new concept, completing a dissertation in a three-article format remains relatively rare in the field of education. Discussions about completing a three-article dissertation needs to occur earlier in the students' scope of study as it provides unique challenges for the student and dissertation committee. This synchronous workshop session provides information about three-article dissertations on the differences between a traditional and three-article dissertation, and the challenges and benefits of completing a three-article dissertation. Other topics addressed in the workshop will include topic development, foci of chapters, format of the proposal, journal selection, and publication and ethical considerations.

T3.0	12:00p – 1:00p

Virtual Luncheon & Open Business Meeting

T3.1	1:05p – 2:05p

Presidential Invited Address

Dr. Gregory Hancock, University of Maryland-College Park

T4.1	2:10p – 3:10p

Fireside Chat

Dr. Gregory Hancock, University of Maryland-College Park
This is an inform casual opportunity for students to interact with Professor Hancock about whatever issues they would like to discuss.
(Graduate Students Only)

T5.1 Paper Session	3:15p – 4:45p

Higher Education
Discussant: Matthew Fuller

Emotional Intelligence Development and College Students
Venus Lillis ~ Texas A&M University-Texarkana

Emotional intelligence is a leading non-cognitive based factor where research shows it can be used as a predictor of academic success and postsecondary attainment. Contemporary literature raises the concern that standardized tests and GPA for enrollment misses the mission of education, favoring the more socially affluent student and suppresses diversity among higher education institutions. Considering these factors, this paper explores EI, how it impacts

academic success, and current approaches recommended to enhance student support for EI. Specifically, it focuses on EI's role in college adjustment, academic achievement, and graduate employability.

The Lived Experiences of Students on Academic Probation
Erin Gordon ~ Sam Houston State University

Each academic year, a cohort of college students are dismissed or placed on probation for failing to make satisfactory academic progress. Yet, research on this population of students, the policies that dictate academic probation, and effective interventions is limited (Arcand & Leblanc, 2012). The researcher proposes a hermeneutic phenomenological study to explore the lived experiences of students on academic probation at a private, liberal arts college in Western Canada. By exploring student experience in the context of existing literature on academic self-efficacy and self-regulate learning, the researcher will offer recommendations for effective interventions for this cohort of students.

Stress Factors in Freshman Colllege Students During a Pandemic
Susanne Gaal & Stacie Szaal ~ Sam Houston State University

The novel virus COVID-19 has created a pandemic which shut down schools and turned the world into remote communication. This study has been constructed to learn the effect of the COVID-19 pandemic on the academic and social health of first year freshman college students as they make this transition from high school to college in the midst of a pandemic. Participating students will be completing a critical thinking assessment twice during the academic school year and participating in 3 focus group interview sessions.

T5.2 Paper Session	3:15p – 4:45p

Equity
Discussant: Julie Smit

Reimagining Equity for Suburban, Economically Disadvantaged Students
Melanie Bujnoch ~ Sam Houston State University

Many suburban educators are facing the growing challenge of meeting the needs of an increasing number of students from economically disadvantaged backgrounds. The purpose of this proposed qualitative phenomenological study is to investigate the perceptions and experiences of administrators and teachers in relation to effective school practices at high schools with large populations of students of economic disadvantage with high academic achievement. The researcher aims to propose effective practices for students of low-SES status at borderline schools facing similar challenges. This study will inform practitioners and decision-makers of effective programs for students from economically disadvantaged backgrounds in suburban schools.

Implicit Bias in Public School Education
Shawn Verow ~ University of Houston - Clear Lake

Implicit bias is evident in many settings and education is no different. This study proposal examines the relationship between a public-school educator's implicit bias and his or her

explicit bias also including a qualitative aspect with examining an educator's reactions to their identified implicit bias if one exists. With the recent increase of attention towards treatment of other races and ethnicity, this study adds value to the discussion of implicit bias.

Policy and Bias: Why Adult Education Leaders Must Pay Attention to the Black Lives Matter Movement
Jenny Walker ~ Texas A&M University-Texarkana

The Black Lives Matter movement has highlighted the need to examine bias and misconceptions that drive systemic racism. In light of this movement, decision makers in adult education must consider how their own backgrounds influence the policy they create for a diverse population of students. This paper examines how bias can cause disconnects between leaders and the adult students they serve. By bridging the gaps between these disconnects, policy and decision makers can better understand equity and diversity problems, have more empathy for students and their situations, and become more mindful about the educational barriers that policies can sometimes create.

The Influence of HBCU Summer Bridge Programs on Ethnic-Racial Identity Development of First-Year Students of Color
Jamila Clayton ~ Sam Houston State University

Summer bridge programs (SBPs) are higher education intervention programs designed to assist at-risk or ethnically/racially underrepresented students by providing them with the academic and social tools needed to be successful in college. SBPs at HBCUs have a unique opportunity to teach students of color about race and social justice through the lens of critical race theory. Understanding critical race theory and African American history may help instill a stronger sense of self for students of color as they prepare for their collegiate journey, which also may assist with their persistence and success rates at the university.

T5.3 Workshop	3:15p – 4:45p

Free Workshop

Finding a Job in Academia: What to Expect and How to be Successful
Gil Naizer ~ Texas A&M University-Commerce
Bill Jasper & Julie Combs ~ Sam Houston State University

This interactive workshop is especially designed to help aspiring graduates of doctoral programs to explore what faculty positions involve, and to make the transition from student to faculty member a smooth one. Topics to be discussed include preparing your vita, highlighting your areas of expertise, matching your applications to actual job postings (and pitfalls to avoid), and negotiating the job offer. In addition, balancing the requirements for scholarly work, grants, research, service, teaching, and becoming a part of your faculty community will be addressed. The open discussion forum will encourage questions from all participants.

T5.4 Workshop	**3:15p – 4:45p**

Free Workshop

Faculty Women of Color in Higher Education
Susan Troncoso Skidmore & Nara Martirosyan ~ Sam Houston State University
Sabinah Wanjugu ~ University of Southern Indiana
Brandolyn Jones ~ Lonestar College Kingwood

In 2017, women comprised 46% of the full-time faculty; 7% were Black, 5% were Hispanic, and 70% were White (USDOE, 2018). According to the Institute of International Education (2019), approximately 137,000 international faculty scholars were working in higher education in the United States. Because almost 80% of international faculty scholars work in STEM fields and women historically have been underrepresented in STEM fields, international faculty women working in higher education are also grossly underrepresented. The purpose of this workshop is to share the stories of three women, who despite the odds, are currently in early-, mid-, and senior-level faculty at institutions of higher education.

T6.1	**5:00p – 6:00p**

Graduate Student Meeting

Elect the new graduate student representative to the board, raffle and elect this year's graduate leadership council.

Friday, February 5

F0.1	8:00a – 1:00p

Coffee Break Collaboration

Join colleagues, old and new, in this come-and-go session. All are welcome to join this collaborative space for working, networking, or just hanging out.

F0.2	8:00a – 8:30a

Graduate Leadership Council

Plan for the coming year and set priorities for incoming Graduate Leadership Council members.

F1.1 Paper Session	8:30a – 10:00a

Special Issues
Discussant: Tonya Jeffery

Manga & Misogyny: A Multimodal Analysis of Gender Roles
Alexandria Perez ~ Texas A&M University-Corpus Christi

To understand manga as a potential learning tool, a pilot study analyzing male and female character interactions in manga is performed using multimodal and social semiotic analysis. Gender representations in the socio-cultural context of manga have various meaning potentials which are explored. Interactions of characters are analyzed to determine gender roles as character interactions change throughout the story and text/picture relationships are determined.

Race and Gender Classifications in American Literature Textbooks: The Shift in Social Representation 2009-2019
Jeanette Figueroa ~ Texas A&M University-Corpus Christi

Self-discovery and cultural awareness, provide a lens for viewing and critiquing history and contemporary social life when instructional material reflects the diversity of student population. A content analysis of high school American Literature textbooks in Texas between published between 2010 and 2020 reveals the shift in social representation (i.e. race, gender, & genres) offered by selected authors. This research offers a historical overview of textbook scholarship, educational reforms effects on textbook production, and criticism on methodologies and procedures for textbook research. Findings will aim at contributing to the limited knowledge on textbooks in English Language Arts curriculum.

Analyzing Representations of Intellectual Disability in Children's Chapter Books
Evalynn Sherrod ~ Texas A&M University-Corpus Christi

Just as it is imperative for children to have access to representations of diverse cultural heritages and opportunities to view culture as an evolving progression of daily living, children

should also have access to positive representations of individuals with intellectual disabilities who exhibit features of a high quality of life. This research demonstrates the results of a critical content analysis of middle-grade chapter books published within the United States that contained characters who had intellectual disabilities. The researcher drew upon critical disability theory to assist in the identification of trends through a qualitative interpretive stance.

An Examination of the Dynamics Among Home-School Communication, Parental Involvement, and Parent Empowerment for Special Populations
Dawn Wiedeman ~ University of Houston - Clear Lake

The purpose of this study is to examine the dynamics among home-school communication, parental involvement, and parent empowerment. This mixed methods study will collect survey and interview data from a purposeful sample of special populations parents from an elementary school in a large suburban school district. Through an analysis of survey data and interview session, an examination of the relationship among home-school communication, parental involvement, and parent empowerment will be conducted.

F1.2 Paper Session	8:30a – 10:00a

Reading
Discussant: Kary Johnson

Teacher Attitudes on Content Area Reading in the Elementary Grades
Angela Prestero ~ Texas A&M University-Corpus Christi

A potential study to measure how teacher attitudes affect the teaching of content area reading in the elementary grades. The results prospectively will shed new light on the impact teacher attitudes have toward the teaching of content area reading and the influence felt across the disciplines. This study can influence other future studies where the focus is at the elementary levels in order to discover links that may be attributed at the secondary levels. This study is a research in progress.

The Influence of Reading Motivation on African American and Hispanic High School Students' Reading
Emeralle Kirksey ~ University of Houston - Clear Lake

African Americans and Hispanics are more likely to enter high school with literacy skills three years behind Caucasian students (Reardon et al., 2012). Results from the National Report Card show that as of 2017, there is a significant reading gap between Hispanics and Caucasians in the eighth and twelfth grades. The reading gap is even larger between African Americans and Caucasian students in the eight and twelfth grades. Motivation could be a key component for improving low reading levels in adolescent readers (Troyer, 2017).

Culturally Responsive Pedagogy: Military-Connected Adolescents Reading as Third Culture Kids in a Third Space
Karyn Suggs ~ Texas Tech University

The purpose of this study is to identify culturally relevant literature for military-connected adolescents (MCA). Many MCA identify as members of a unique population known as Third Culture Kids (TCK) (Pollock et al., 2017). Educators who work in military connected communities would benefit from this research, as it provides a link in the understanding of the literary identities of military-connected adolescents and would contribute to the literature in this field of study.

F1.3 Symposium	8:30a – 10:00a

Symposium

Using Reflexivity as Rigor in Qualitative Research

Darawsheh (2014) cited Anderson (2008) and Hughes (2014) to define reflexivity as "the continuous process of self-reflection that researchers engage in to generate awareness about their actions, feelings and perceptions" (p. 561). Darawsheh (2014) also argued for the need for the increased usage of reflexivity as a form of improving rigor in qualitative research, as this is an underutilized tool of investigation. In this symposium, we take up the issue of rigor in qualitative research to examine the implications of using reflexivity as a researching and teaching tool with graduate students. Each presenter will examine reflexivity through the following papers.

Writing: More to It than Putting Pen to Paper
René Saldaña ~ Texas Tech University

In his book *Teachers as Cultural Workers*, Freire (1998) states that "writing is not a mere mechanical act preceded by a greater, much more important act: the act of thinking in an organized manner about a specific object," a thinking act during which the writer becomes "more intimately" knowledgeable about the object only after studying it and thinking about it thoroughly, and only after, can the writer address the object of study on paper. Instead, it is a multilayered writing process that involved, in no particular order, "thinking, doing, writing, reading, thought, language and reality," all of which are "impossible to separate and dichotomize." In other words, the writer will decide on an object of study, consider it carefully, jot down some ideas, read up on it, revisit the original thoughts, revise the ideas, jot down some more notes, read some more, revisit again, begin to draft, etc. Writing should be a process that leads to knowing and re-knowing. It should be about becoming enlightened again and again. The more a writer is in the muck of writing, the more the writer learns about the process, the craft, and the object of study.

Mirror, Mirror on the Wall: Looking Backward to Propel me Foreword in Qualitative Research
Whitney Baker-Beach ~ Texas Tech University

This paper will address reflexivity, through writing and discursive reflexivity, as a mirror of my growth from a new scholar into a more a more confidant member of a research community. The insight I gleaned from being present in several research teams, and

experiencing them through many leadership models from my position as a research assistant, allowed me to view the amalgamation of the experiences as a whole as a "masterclass" of sorts. Having been fortunate enough to have belonged to several short-term teams, one long-term distance team, and one long-term on-campus team, I will tell the story of my journey into becoming a more realized researcher, a more confident scholar, a more competent and willing mentor, and a more socially actualized advocate for the story told by the data underpinned by my more finely tuned epistemology through the use of self-interpretation and the growth that I allowed to take place both personally and professionally.

Life Experience as Part of the Qualitative Researcher's Methodology
Mellinee Lesley ~ Texas Tech University

This paper will address the role of the researcher's life experiences in their scholarly work. Specifically, I argue that self-examination is an essential companion to conducting qualitative research. That is, the researcher's self is data and as such must be examined in tandem to researching other perspectives and phenomena (Attia & Edge, 2017; Blair, 2010). Both the experience of the researcher and participants must be translated into data. The first step in this process is reflexive writing (Luttrell, 2010). Taking field notes is a nudge toward reflexive writing, but to thoroughly engage in an interpretive process, the researcher must take a deep introspective look at the self. "From this perspective, the experience of a writing act is as important as—perhaps even more important than—the text" (Whitney, Hicks, Zuidema, Fredericksen, &Yagelski, 2014, p. 180). Thus, reflexive writing as a way to discover the self as researcher is essential to qualitative data analysis.

Writing as Therapy: Using Fiction in the Classroom to Process Trauma
Elizabeth S. Stewart ~ Texas Tech University

The purpose of this article is to show how bibliotherapy (De Vries, Brennan, Lankin, Morse, Rix, & Beck, 2017), with the YA novel *The Bridge Home* (Venkatraman, 2019), and writing (Feldman, 2011) can be used in the classroom to help students in processing their trauma through the lens of trauma theory. The author of *The Bridge Home* (2019), Dr. Padma Venkatraman, chose to write through her trauma to process what happened in her past and to heal (P. Venkatraman, personal communication, July 14, 2020). The author has also used the same method to process through her own trauma and emotions resulting from the massacre at Virginia Tech on April 16, 2007.

Symposium Discussant: *Aaron Zimmerman ~Texas Tech University*

F2.1 Paper Session	10:05a – 11:35a

Achievement
Discussant: Emma Bullock

Analyzing the Correlation between Academic Coursework and Disciplinary Outcomes
Kristian Edosomwan ~ Texas A&M University

Significant scholarship has explained the connection between academic tracking, the within school segregation of students based on perceptions of their academic abilities, and negative school outcomes for students of color. However, little research exists that explicitly links

academic tracking to negative disciplinary outcomes for students of color. Using a quantitative analysis of the Educational Longitudinal Study (ELS) base year questionnaire data, I noticed a connection between college preparatory high school programs and lower rates of in-school suspension. Therefore, offering more access to college preparatory programs could offer a solution to the disproportionate discipline.

Mapping the Relationship Between Reading Skills and Mathematics Skills: An Analysis of State of Texas Assessments of Academic Readiness (STAAR) Algebra I and English I Test Data
Seoyeon Park ~ Texas A&M University

The purpose of this study is to analyze how specific reading subskills affect students' mathematical achievement. Even though many studies contended that reading abilities are deeply related to students' mathematical abilities, there is a lack of theoretical or empirical studies regarding which specific reading skills can explain students' conceptual or procedural math problem-solving abilities. Thus, this study will investigate the relationship between reading and mathematical subskills by applying structural equation modeling.

Differences in Industry Certification by Economic and At-Risk Status Between School Years
Natalie Priwer ~ Sam Houston State University

The study of differences in industry certification by economic status and at-risk status between the 2016-2017 and 2017-2018 school years will be examined. This study will consist of Grades 9 through 12 students who will complete industry certification during the 2016-2017 and 2017-2018 school years. Inferential statistical analyses of Texas statewide data will be used to determine the percentage of students who are economically disadvantaged and graduating with an industry certificate in the 2016-2017 school year and the 2017-2018 school year.

The Impact of Co-requisite Algebra Models on Student's Psychological Well-being and Student Engagement
Tammi Rice ~ University of Houston - Clear Lake

This is a sequential explanatory mixed methods study that examines co-requisite college algebra courses and its impact on a student's psychological well-being (PWB) and student engagement (SE). Co-requisite mathematics courses have shown promising completion and retention results for students that need mathematical remediation. This study seeks to assess if college algebra co-requisite models have an impact on PWB and SE. This will be done by surveying college algebra students from an array of different models, as well as focus groups.

F2.2 Paper Session	10:05a – 11:35a

Administration
Discussant: Matthew Fuller

Examining the Relationship Between Different Factors and Campus Leaders' Perceptions During Online Delivery of Instruction
Norma Veguilla-Martinez ~ University of Houston - Clear Lake

In late spring of 2020, educators, students, and parents around the world felt an extraordinary ripple effect when schools shut down amid a public health emergency (McCarthy, 2020). A new world of social distancing forced educators to replace face-to-face learning with a virtual model. While higher education institutions had been increasing online learning opportunities even before the pandemic closed schools, K-12 schools had to quickly adapt to online learning (Vegas, 2020). This study will examine different factors and determine which prove to be more important in determining a K-12 campus leader's role during distance learning.

Alternative Teacher Certification and the Hiring Process: Finding Quality Candidates During a Teacher Shortage
Bethany Ivie ~ Texas A&M University-Texarkana

Research has indicated a growing teacher shortage for decades. Alternative certification began as a tool to combat the dropping numbers of college students pursuing education degrees. Despite the availability of these programs, there are still far too many vacant teaching positions across the nation, and educational administrators must resort to hiring unqualified teachers to fill these empty classrooms. This problem briefly catches the attention of policy makers but continues to go unsolved. This analysis provides an up-to-date review of the existing research on alternative certification and presents questions about the need for reform in the area of teacher certification.

Texas Alternative Education Campuses of Choice and Student Dropout Rates
Daniele Jordan ~ Sam Houston State University

The purpose of this research study will be to provide a statistical analysis of archived data on dropout rates of high school students enrolled in Texas AECs of choice by ethnicity/race and gender. Also, the results collected from the statistical analysis will provide researchers with suggestions for further research on the effectiveness of these school models beyond dropout prevention data.

Exploring Advanced Academic Student Educational Experiences Resulting from Interrupted Instruction due to COVID-19
Charlotte Leon ~ Texas A&M University-Texarkana

The shift to sudden, at-home instruction for traditional face-to-face educational institutions brought about a myriad of unexpected complications for administrators, teachers, students, and families. While educational reform measures have taken great strives to relieve educational inequities, educational experiences during COVID-19 may expose existing disparities. The current paper presents research for a paradigmatic narrative case study. The research will analyze stories in an effort to explore and understand the lived experiences of dual credit and Advanced Placement high school students in the spring of 2020 in an effort to inform educational leaders of considerations for future planning.

F2.3 Workshop   **10:05a – 11:35a**

Free Workshop

Lost in a Strange Land: Taking Ownership of Your Dissertation Journey
Peggy Holzweiss ~ Sam Houston State University

Writing a dissertation can feel like moving to a new country. You have some knowledge of the culture, but you don't always understand what to do or where to go. Feeling lost and frustrated in the academic culture is a common experience for many doctoral students. If this describes your experience, this workshop can help. Learn how to exert ownership over your journey by implementing four strategies - traveling the best paved road towards completion, identifying landmarks and landmines, finding the right tour guides, and managing the mayor of your town (better known as your dissertation advisor).

F2.4 Workshop   **10:05a – 11:35a**

Free Workshop

Leveraging the Opportunities of Mixed Methods in Systematic Review: Introduction to Systematic Mixed Studies Review
Sarah Ferguson & Monica Reid Kerrigan ~ Rowan University

The research community has increasingly recognized the value of synthesis studies in expanding our understanding of phenomena. Mixed-methodology broadly has also gained ground as a pragmatic approach to research investigations. By leveraging mixed methods approaches in a synthesis review, systematic mixed studies review (SMSR) enables a broad and integrated summary of existing research on any topic. This workshop will introduce attendees to SMSR as a method of systematic literature synthesis, providing tools and recommendations for researchers new to this approach. Prior knowledge of systematic literature review approaches is helpful but not required.

F3.1 Paper Session   **11:40a – 1:10p**

Special Education
Discussant: George Moore

Perceptions of Teachers Who Are Also Parents of a Child with Autism and Their Role in Supporting Literacy Development
Elizabeth Woodall ~ Texas Tech University

The number of children diagnosed with autism spectrum disorder (ASD) has nearly doubled in the last 20 years and general education teachers are increasingly finding themselves responsible for meeting the needs of students with autism in the classroom. Teachers have reported feeling underprepared to meet the challenges present in children with ASD. The purpose of this phenomenological study will be to explore the lived experiences of English language arts teachers who are also parents of a child/children with autism and their professional understanding of supporting students with autism in the general education classroom.

Exploring the Experiences of High Functioning ASD Students in Innovative Learning Environments
Angela Lappin ~ Texas Wesleyan University

This study specifically investigates, with the use of the Triadic Reciprocality Model, the experiences that secondary level HFASD students have within the secondary inclusive innovative learning environments. The qualitative research study explores the experiences of three teachers, students, and parents within two innovative learning environments located within the same school district in a suburb of North Texas. In addition, this study researches the question: How does the inclusive learning environment impact the social and academic needs of HFASD students?

Improving Transition Outcomes for Students with Autism Spectrum Disorder
Doni Barrett ~ Texas A&M University-Texarkana

Research indicates transition services for students with Autism Spectrum Disorder (ASD) are leading to negative outcomes after high school graduation (Kucharczyk et al., 2015; Nuske et al., 2019; Shattuck et al., 2012). Transition is the responsibility of any educational program and provides accountability measures according to the Individuals with Disabilities Education Improvement Act (2004). Education leaders recognize improvement is needed. In this paper, the research questions: Is there evidence of effective transition services? If so, what are the components? This paper discusses what education leaders can do to improve the transition outcomes of students with ASD.

Program Evaluation of Take Flight: A Comprehensive Intervention for Students with Dyslexia
Jamie Davidson ~ Tarleton State University

With so many programs for dyslexia intervention, school districts may have trouble deciding what program to use and then take the time to measure that program's effectiveness. The purpose of this study was to conduct a program evaluation of the Take Flight dyslexia intervention program implementation at three elementary schools (grades K-5) utilizing Stufflebeam's CIPP model of program evaluation. This evaluation examined the context, input, process, and product of the Take Flight dyslexia intervention program implementation in a suburban district in Texas in order to determine the effectiveness of the program.

F3.2 Paper Session	11:40a – 1:10p

Achievement
Discussant: Bill Jasper

Relationship of the College Assistance Migrant Program Housing Accommodations on Migrant Students GPA and Degree Attainment
Nancy Dominguez ~ Tarleton State University

Migratory students face many challenges as a direct consequence of being a migrant, such as a lack of a proper education, working in physically demanding jobs, live below the poverty line, lack proper English language skills, and family separation. The purpose of this study will be to

examine if housing accommodations impacts grade point average and degree attainment for incoming migrant freshman students in the College Assistance Migrant Program (CAMP) at a university in south Texas. The participants will include over 450 migrant students who were enrolled as full-time, first-time freshmen during the fall semesters from the years 2012-2019.

Immigrant Graduate Student's Persistence Toward Graduation: Factors Affecting Their Ability to Complete a Program of Study
Chenda Moore ~ University of Houston - Clear Lake

It is known that graduate students encounter many obstacles that impede their ability to finish their degree, less is known about what additional obstacles immigrant students face when pursuing a graduate degree. The United Nations High Commission for Refugees (UNHCR) in 2018 declared a new record high of 68.5 million displaced people worldwide. Family, peers, and social justice commitments play an important role in influencing immigrant students to enter graduate programs (Lara & Nava, 2018). The persistence level of immigrant graduate students is of great concern for institutions of higher education (IHEs) due to different factors that could help or hinder the student's ability to persist in the program leading to graduation (Dwyer, 2017).

Educación Sin Fronteras: A Qualitative Study Examining Factors Affecting K-12 Immigrant Students in Public Schools
Yeri Villalobos ~ Sam Houston State University

In this study, factors affecting K-12 immigrant students attending public schools in the United States will be explored in an attempt to identify and describe factors that immigrant students encounter in public schools that either help them or hinder them from becoming academically successful. Another goal of the intended study is to find common themes among the students, teachers, parents, and leaders involved. Through this study, current and future stakeholders may be informed about the needs and support K-12 immigrant students need to be successful.

DIVISION I ~ ASYNCHRONOUS SESSIONS
Educational Administration, Policy, Leadership, and Program Evaluation

Leadership Development in Higher Education Administration: A Scholar-Practitioner Case Study
Jennifer Bailey & Dana Kermanian ~ The University of Texas at Arlington

K-16 leaders look toward improvement from a plethora of resources, often emulating leaders or transplanting practices into their own in hopes for the replication of success. This practice sharply contrasts the defining words that a leader is characterized by—innovator, pioneer, torch-bearer. These descriptors bring forth the essence rooted in Dewey's (1916) work—reflection. However, the intentionality in the skill of reflection is one to consider in the preparation of educational leaders. This single case study examines how a systematic approach to personal reflection, coupled with intentional scholar—practitioner support through a faculty coaching mentor, impacts leadership efficacy.

Instructional Supervision During the COVID-19 Pandemic: Two Case Studies
Don Beach, Jesse Brock, Mandy Musselwhite & Ikie Holder ~ Tarleton State University

This paper examines how two campus level principals in Texas reacted to and lead during the onset of the COVID-19 pandemic within a scholar-practitioner framework. Utilizing an autoethnography case study research design (Patton, 2002), each principal individually details in his and her own words their lived experiences and responses associated with instructional and supervision issues surrounding the COVID-19 pandemic. This study provides reflections of the lessons learned and insights gained regarding implications for instructional supervisors in an educational setting impacted by the novel and threatening virus.

A Piece of the Pie: Techniques for Comparing School within School Performance to the Whole School Performance
Liz Bergeron, Cindy Bogdan & Beth Boesche-Taylor ~ New Tech Network

This study uses chi-square testing to examine end of course performance differences between intervention and non-intervention students in 4 high schools and 3 middle schools in Texas. Each of these schools offers a school within a school (SWS) program focused on Project-Based Learning (PBL) for students. End of Course (EOC) performance for students in the SWS and host campus was statistically compared using Chi-Square testing. Findings suggest that intervention students outperform main campus students in 97% of statistically significant high school comparisons and 94% of significant middle school comparisons.

The Impact of a Summer Learning Program on Urban Students Attendance, and Academic Achievement
Morticia Brooks-Taylor ~ Union University

With federal legislation shifting from No Child Left Behind (NCLB) to Every Student Succeeds Act (ESSA), districts are actively seeking effective and innovative approaches to narrowing the achievement gap. Urban school districts generally consist of racially and socioeconomically diverse student populations, numerous high poverty schools, and fewer teacher resources. They struggle to meet achievement measures each year and the gap continues to widen. This quantitative study examines a large urban school district to determine if its Summer Learning Academy helps students retain previously taught skills in order to prevent the phenomena know as summer learning loss.

Differences Between Schools of Choice and Traditional Comprehensive Schools in their Grade 9 Academic Performance
Divina Browne ~ Sam Houston State University

This study was conducted to determine the differences between schools of choice and neighborhood schools in their Grade 9 academic performance in the 2018 STAAR EOC exams. Inferential statistical analysis of the data revealed a significant difference between the two types of schools in their EOC exam passing rates in all three content areas for students who were not at-risk and who were not in poverty. In contrast, no significant differences were revealed between the two types of schools in the EOC exam passing rates of their CATE and Non-CATE students. Implications and recommendations for future research are discussed.

Leading South Texas Schools During the COVID -19 Pandemic
Daniella Varela & LaVonne Fedynich ~ Texas A&M University-Kingsville

This survey study sought to understand how the COVID 19 pandemic impacted school leadership in K-12 schools in a South Texas region. Primarily, the results serve to inform education stakeholders and policy makers about the experiences of educational leaders in times of crisis and in managing school operations during the current pandemic. Findings indicate that school leaders were generally confident in their preparedness to best serve students, staff, and parents during the COVID-19 pandemic but felt a lack of resources and a preponderance of student inequities complicated the experience. Results provide evidence as to the support needed to continue effective school leadership under atypical circumstances.

Contributions of International Professionals to College Athlete Development/Academics: "We've Got a Lot to Offer"
Nikola Grafnetterova ~ Texas A&M University-Corpus Christi
Sachin Narayanan ~ Florida State University

Higher education lacks international presence in the field of college athlete development/ academics. This study explored the work experiences of non-resident aliens who are employed in said field. Six individuals participated in this qualitative case study. Data analysis uncovered the themes of (1) Barriers to Entry, (2) An Asset to the Profession due to

International Background, and (3) Athletic Insiders. This study highlights the significance of the contributions of international professionals who work at U.S. higher education institutions, and their perception. The international background was found to be beneficial in their profession but a limiting factor during their hiring process.

Building Mentoring Capacity, Professionalizing the Mentor's Role, and Strengthening School-University Partnerships
Valerie Hill-Jackson, Erin Singer & Matthew Etchells ~ Texas A&M University

The We Teach Texas P12 Mentoring and Coaching Academy's vision, a new program offered by the College of Education and Human Development at Texas A&M University, is to transform the preparation of teacher mentors by providing evidence-based professional development for P12 mentors and coaches who support beginning teachers throughout the state. Attendees will (1) understand why building mentoring capacity matters, (2) discuss ways that training programs professionalize the mentor's role, and (3) examine the ways the Academy's university-based mentor training program, which is aligned to the Texas Teachers Evaluation and Support System (TTESS) rubric, can strengthen school-university partnerships.

Theoretical Frameworks in Educational During Times of Social Transformation: Perspectives on Foucault
Kelly Jacobs ~ Sam Houston State University

The central focus of this study was the application of Foucault's (1966, 1972) theoretical perspective to recent historical events, namely the COVID-19 pandemic and the social unrest in response to systemic racial injustices in the United States, and their ensuing effects on the field of education. A juxtaposition between structuralism and post-structuralism was identified in Foucault's (1966, 1972) theories for which parallels to the effects of the recent pandemic and social tensions on education were established. Recommendations for new theoretical perspectives in educational research and practice based on the established parallels formed the conclusion of this study.

Understanding Student Attrition in an Online Doctoral Program: A Convergent Mixed Methods Study
Corina Kaul & Cece Lively ~ Baylor University

Attrition in online doctoral programs is a significant concern with only 40% graduating. This convergent parallel mixed methods study examined characteristics of former Ed.D. graduate students and their reasons for discontinuing. Descriptive statistics are used to examine demographic characteristics associated with individuals who have discontinued and compared to those who have retained. Qualitative data gathered from exit interviews explores reasons for quitting. The quantitative data and qualitative data analyzed separately and converged to provide greater illumination. Results and implications may be relevant to other potential and current graduate students as well as administrators and faculty of online graduate programs.

Understanding the Academic Risk of Absenteeism
Andrew Miller & Susan Troncoso Skidmore ~ Sam Houston State University

Most everyone acknowledges, or perhaps assumes, that in order to succeed in a course one must, at minimum, attend that course with some regularity. However, there is a dearth of literature that identify at what point in the semester absences become problematic, in a formative metric. The purpose of this study was to examine the extent to which cumulative absences at specific points in the semester (Weeks 4, 8, 12, and 16) affected final course outcomes at one small-to-mid-sized, private, religiously affiliated 4-year university in the Midwest United States. A quantitative non-experimental design was employed to address this aim, as well as to explain the extent to which that impact was related to the number of credits and the number of weekly class sessions per course. The two prevailing trends found were that (a) each absence accrued corresponded to a meaningful drop in the proportion of student passing the course and the mean grade point average and (b) that these patterns held true only to a given threshold.

Equity of Participation in Science Fair
Debra Plowman, John Hornsby & Alissa Mejia ~ Texas A&M University-Corpus Christi

For the past 33 years, the Regional Science Fair has been facilitated by our university, TAMUCC. We analyzed fair participation using registration records to support our understanding of equity and diversity among participants, which provide critical information about participant backgrounds, demographics, and topic choices. How the Coastal Bend Regional Science Fair serves the region is critical in cultivating interest in STEM. Initial results of our study of 675 registration records show that participation between genders are equal, while race/ethnicity and family income levels show disparities. Patterns of participation, disaggregated by grade, districts, and frequency of participation will also be shared.

The Influence of the Teacher Preparation Program on Teacher Retention, Teacher Performance, Student Achievement, and Teachers' Efficacy
Marva Rasberry ~ University of Houston - Clear Lake

There are very few issues challenging the education profession as much as the current and increasing shortage of teachers (Zeller & Zhang, 2016). Across the nation teacher attrition is high and is one of the major causes of teacher shortage (Ingersoll, 2004). Compounding those leaving the field for retirement is the high rate of teachers exiting the profession annually for other reasons, such as disagreeable working conditions, lack of preparation, and low compensation (Zeller & Zhang, 2016). To address this problem, research is needed to determine elements that affect retention and teacher's decision to remain or exit the teaching profession (Zeller & Zhang, 2016).This study could prove significantly beneficial to teacher preparation program and developing the contents of the programs to address the needs of producing well-rounded stellar educators.

A Comparative Study of the 21ˢᵗ Century Afterschool Center on Education in Elementary Schools in South Texas
Laura Salinas-Vasquez & Daniella Varela ~ Texas A&M University-Kingsville

This quantitative study examines the relationship between implementation of the 21st Century Afterschool Centers on Education (ACE) program and fourth grade student performance on the State of Texas Assessment of Academic Readiness (STAAR). The study applied a quantitative, ex-post facto research approach that analyzed data from fourth grade students enrolled in elementary schools within Region One. Results found no significant difference between those schools with implemented ACE programs and those which did not. Discussion and implications for school improvement and intentional use of federal funds are offered.

Motivating Students for STEM: Investigating the Influence of a STEM Lab on Middle School Students' Self-efficacy and Expectancy-value
Linda Smith ~ Texas Tech University

Indiana has made K-12 STEM education a priority. In response to Indiana's goal of providing all students K-12 with a research-based STEM curriculum by 2025, a middle school in East Central Indiana created a STEM Lab Course for their students. The curriculum for this course was developed using the design thinking framework and the United Nations' Sustainable Development Goals. In this quantitative survey study, we compared the self-efficacy and expectancy-value of students pre and post-participation. We used the pre and post-survey data to further develop the course curriculum using an iterative process based on the data.

Examining High School GPA as a Placement Measure in Community Colleges
Ashley Stich ~ Mesa Community College
Susan Troncoso Skidmore ~ Sam Houston State University

The current study was designed to add to the growing research on the placement methods used by community colleges to identify new-to-college students' level for beginning courses. Recently researchers have provided support that suggests the accuracy of using high school GPA as a primary method for placement, but little research has been done to explore the equity of this measure (Belfield & Crosta, 2012; Ngo & Kwon, 2014; Scott-Clayton, 2012). Through the use of argument-based validity theory and social justice theory, this study explored the relationship between mathematics placement method (ACCUPLACER© or high school GPA) and mathematics course success across various demographic groups. This study was designed to use data gathered from MCCCD, a large urban community college system during the Spring 2018 and Spring 2019 semesters.

Professor Perceptions of Training and the Change Process when Transitioning from the Traditional to the Online Format
Shannon Stoker ~ Texas Wesleyan University

Online education has become the new normal in higher education. As traditional brick and mortar universities move their programs and courses to the online format, their professors must also make the transition. The purpose of this study was to investigate professors'

perceptions of the change process and training utilized by universities when transferring their programs from the traditional to the online format. This quantitative study reveals the importance and need for universities to prepare their professors for the transition to the online format.

Decoding Debt: Can College Students Understand Student Loan Debt Letters?
Zach Taylor ~ Trellis Company
Karla Weber ~ Purdue University

This study analyzes a sample of 24 student loan debt letters gathered from institutions of higher education across the country to fill research gaps. Results suggest most debt letters are not readable by the average first- or second-year college student, jargon differs between sectors (ex: public, private), and debt letters share many common elements, such as aggregate loan totals and interest rates, but many do not include contact information or any multimedia, even though letters were written to be delivered digitally. Implications for research, practice, and financial aid communication are addressed.

Now Where is Campus?: The Impacts of Senate Bill 212 on Texas' Colleges
Zach Taylor ~ Trellis Company

In a response to the #metoo movement and unclear Title IX guidelines forwarded by the U.S. Department of Education, the Texas Legislature recently enacted Senate Bill 212 (SB212), a bill aimed at increasing the reporting of sexual violence on college campuses in Texas. In this brief, I report on institutional Title IX guidance just before SB212's January 1st, 2020 implementation date, as SB212 drastically increases the reporting requirements and penalties associated with failures to comply.

Nudging in a Pandemic: Lessons Learned from Text Messaging College Students Amid COVID-19
Zach Taylor, Sana Meghani & Lizeth Jaquez ~Trellis Company

As an emerging technology in higher education communication, researchers have recently analyzed the efficiency and effectiveness of text messaging college students for a variety of reasons. These reasons could include completing enrollment steps, submitting financial aid documents, or simply delivering timely information to students. This study analyzes six months worth of student feedback from a text messaging program serving 40 minority-serving institutions in the United States. Findings indicate that institutions of higher education could have communicated curricular models and campus information in a more timely, clear manner to assuage student anxiety and support student persistence and graduation.

Foundations of a Successful STEM School
Carol Waters ~ University of Houston - Clear Lake

Exposure to integrated STEM curricula in K-5 elementary schools is critical to create economic opportunities for students, meet the needs of the future U.S. STEM workforce, and build a stronger understanding of engaging and practical STEM application in the real-world.

Capturing students' interest in STEM at an earlier age is necessary to achieve these goals. This mixed methods case study investigated if the implementation of integrated STEM curricula into a K-5 elementary school would increase student achievement as measured by STAAR and sought to identify STEM educators' perceptions of STEM education and key components of a successful STEM elementary school.

The Validity of Two Questionnaires in both Professional Learning Communities and Teacher Leadership--a Multidimensional Scaling Analysis
Zhidong Zhang, Melissa Castaneda & Jesus Abrego ~ The University of Texas Rio Grande Valley

This study examined the validity of two constructs: teacher leadership and professional learning. The sample was from 325 teachers in South Texas. Teacher leadership was measured by the instrument of Professional Learning Communities (PLC) with 52 items in 6 dimensions. The professional learning was measure by the instrument of Teacher Leadership School Survey (TLSS) with 49 items in 7 dimensions. The authors examined the validity of the two constructs with multidimensional scaling techniques. The results indicated that both questionnaires were independently represented their dimensions and subdimension effectively.

A Pathway for Developing Content Blueprinting Strategy for the Curriculum of Osteopathic Medical School
Yuan Zhao, Candace Walkley & Kevin Lord ~ Sam Houston State University

To facilitate the development of a comprehensive and spiral curriculum for a new osteopathic medical school at our university, an ad hoc Curriculum Blueprinting Work Group was formed. The group took a unique strategy and created content blueprinting tools based on the COMLEX-USA (Comprehensive Osteopathic Medical Licensing Examination of the United States) Master Blueprint as an aid to prospectively create and retrospectively assess pre-clinical and clinical curricular content. The study introduces the process of design and implementation of the tools. It may provide insights for other similar programs in determining what, where, and when content could be delivered throughout the curriculum.

DIVISION II ~ ASYNCHRONOUS SESSIONS
Instruction, Cognition, and Learning

STEM from Home: The Influence of an Online Informal STEM Camp on Perceptions of STEM and STEM Careers
Macie Baucum & Robert Capraro ~ Texas A&M University

The COVID-19 pandemic increased demand for effective online learning platforms. Informal learning environments, such as science, technology, engineering, and mathematics (STEM) camps, influence perceptions of STEM fields and careers. We analyzed how an online STEM summer camp and a synchronous face-to-face camp changed students' perceptions of science, engineering, and mathematics and STEM careers. Within-group and between-group nonparametric effect sizes were computed, and r class effects were reported. The between-group analysis revealed that the online camp improved students' career perceptions more than the face-to-face camp, and the face-to-face camps improved students' perceptions of science, mathematics, and engineering more than online camps.

Social Distancing or Social Emotional Damage? A Qualitative Examination of Teachers' and Parents' Response to COVID-19
Adam Bell, Ryan Glaman, Credance Baker & Lesley Leach ~ Tarleton State University

During the Spring 2020 semester, the COVID-19 pandemic caused school closures and teachers shifted to virtual instruction while implementing SEL practices with little preparation. In this qualitative examination, parents' and teachers' reflect on their social emotional experiences from the Spring 2020 semester. The sample for the study will include 291 participants (80 K-12 teachers; 103 parents of K-12 students; 108 participants were both teachers and parents of K-12 students).

Kinesiology in the Archives
Jesse Brock, Kelsey McEntyre, Kayla Peak, Joshua Willis & Julie Mata ~ Tarleton State University

Learning about and participating in archival research is often absent from research methodology courses within the kinesiology field. However, scholars have found that there are several benefits associated with conducting archival research, such as students increasing their critical thinking skills, social responsibility, and campus connection. The purpose of the research project was to analyze if kinesiology students ($N = 7$) participating in a semester long external, non-coursework, archival research project experienced a shift in their overall views of the field of kinesiology and archival research as a methodology.

Ranking Design Features of Commercially Available 6th-8th Grade Digital Math Games: Preliminary Results of a Pilot Study
Emma Bullock, Jillian Choquette, Prestin McCormick & Rebecca Goodman ~ Sam Houston State University

The purpose of this pilot study was to rank commercially available digital math games for selection in a larger future study of digital math games developed for 6th-8th grade students. This paper reports on the preliminary results found from playing and ranking the first 261 commercially available games which were identified. Overall, the findings suggest it will be difficult to find digital math games that fulfill our criteria as we play the next 240+ games. We were able to find one game which fulfilled one of the nine different games criteria for which we are searching.

What does 60% Attendance Daily Attendance Mean: ADA in an Early 20th Century Rural Texas County
Lynn Burlbaw ~ Texas A&M University

An examination of 887 records of attendance by 739 individual students, some from multiple years, from 338 individual families (63 African American (139 students) and 275 White (600 students) families) revealed showed patterns of attendance related to guardian occupation and extra-academic events. Many students had 100% attendance for the days they were enrolled in school; because some enrolled in school late or were withdrawn from school prior to the end of the school year, the attendance figure is less than 100%, even though the child may have been in school each day during the enrolled period.

The Impact of the Physical Environment on the 4Cs and Elementary School Student Engagement
Jorge Carmona Reyes ~ Baylor University
Shanna Attai ~ Midway ISD
Judy York ~ Educational Service Center, Region 12
Kerri Ranney ~ Huckabee Inc.
Truell Hyde ~ Baylor University

Increase in student engagement should be reflected in an increase in characteristics that induce academic attainments such as critical thinking, collaboration, creativity, and communication (The 4Cs). These are the skills that are considered of significance in the 21st-century skills framework. This presentation shows that the proper use of the environment coupled with professional development supports such an increase in student engagement as reflected in an increase in the attributes previously mentioned. The observational protocol used to measure the use of the environment, the manifestations of the 4Cs, and the resulting student engagement are discussed.

An Investigation into the Impacts Creating a Distance Learning Course on AGEP STEM Dissertators and Fellows
Linda Challoo, Marybeth Green, Pete Pardo & Raj Challoo ~ Texas A&M University-Kingsville

Preparing university faculty to teach online has been a major concern of many higher education institutions of late. Faculty, who have built their careers as face-to-face instructors, are having to learn at light speed how to translate their content into online instruction. The researchers in this study, as part of an National Science Foundation (NSF) funded Alliances for Graduate Education and the Professoriate (AGEP) grant, sought to prepare minority dissertators and doctoral fellows in STEM fields for online teaching. The purpose of this research was to study the impacts of training in online course construction on their efficacy in constructing and teaching an online course.

Behavioral Engagement of Students With Different Learning Needs
Tracey Sulak, Janet Bagby, Jennifer Robins, Donna Hulsey, Titus Moten & Harsha Pathanjaly ~ Baylor University

Using ECLS-K:2011, a nationally representative data set, behavioral engagement profiles of 18,174 fourth-grade students were examined. The students were identified as one of four types of learners: with a disability, gifted and talented, twice-exceptional, and general education. Behavioral engagement focuses on student conduct in class, student participation, and student interest in academics. Analysis indicates the groups differed significantly on behavioral engagement as measured by the five behavioral items. The twice-exceptionalities and the gifted and talented groups' responses had the greatest homogeneity with a small effect size suggesting similar behavioral engagement between these two groups.

Development of Empathy through Communicating Skills Training in Medical Education
Ramona Dorough & Caitlin Siropaides ~ The University of Texas Southwestern Medical Center at Dallas

The Jefferson Empathy Scale is a widely used instrument in medical education. The scale shows the measurement of empathy of physicians in relation to patient care. This scale has been used nationwide in multiple healthcare disciplines. The purpose of this study is to see if teaching communication skill on empathy and care has a significant effect of medical students after a one-day workshop. Research has been conducted over empathy for medical students over multiple years in medical school, but little research exists about short term learning and the effects on empathy.

Biozobots: An Investigation into Using Robotics to Engage College Students in Introductory Biology Course
Cynthia Galloway & Marybeth Green ~ Texas A&M University-Kingsville

Creating meaningful learning environments that support university students in their early STEM courses has become a focus of interest for many universities. This research investigated an active learning environment where students used Ozobot robots to visualize complex concepts such as Metabolism, Photosynthesis and Cellular Respiration in an introductory Biology course. Three

conditions were employed over three semesters including a Control, Nonreflective, and Reflective condition. In both the Nonreflective and the Reflective condition, students programmed robots to visualize concepts in the three topics of interest. Quantitative analysis using Kruskal Wallis revealed significant differences between the Reflective and the other two conditions.

Student Voices: Common Threads In Underrepresented Students on Secondary Science
Kelvin Kibler & Omah Williams-Duncan ~ University of Houston - Clear Lake

With the United States having a shortage of qualified workers in the science, technology, engineering, and mathematics (STEM) fields, underrepresented students' lack of seeking science majors and possible science-based careers exacerbates the workforce shortage. This qualitative study examines underrepresented juniors' and seniors' perceptions about the need for science education in their potential college majors and career choices. The study consisted of 10 underrepresented students at a low socio-economic status high school in southwest Houston. The researchers implemented constant comparison, uncovering three student perception categories from their interviews. Findings included strategies for high school science classrooms and STEM programs.

Increasing College Students' Depth of Knowledge with Online Video Response Tools
Suzanne Lindt, Christina McIntyre & Stacia Miller ~ Midwestern State University

This pilot study examined college students' development of depth of knowledge by observation and analysis of videos from an online video response platform used in the college classroom for instructional support, discussion, and assessment. The purpose of this study was to examine the use of Flipgrid in supporting students' development of their depth of knowledge pertaining to content required in their pre-service teacher training. Results of a preliminary analysis of the data indicate that Flipgrid is a useful tool for increasing students' depth of knowledge.

Incorporating STEM Education in Daily Instruction: A Mixed Method Study of Teacher Readiness to STEM Education as a Daily Routine
Victor Martinez ~ University of Houston - Clear Lake

This study investigates how prepared elementary math and science teachers believe they are to incorporate STEM education into their daily practices. Mathematics and Science teachers might face different challenges while modifying the existing curricula to adapt it to STEM approaches. This research tends to understand how well-prepared educators and instructors feel they are and how much professional development they believe they need to guarantee their classroom instruction's success. This task is completed by surveys and interviews with mathematics and science elementary teachers committed to using STEM education in their lessons.

The Construction of Identity through Early Childhood Curriculum: Examining Picturebooks from a Critical Feminist Lens
Kelly Medellin ~ Midwestern State University

This study employed a marginalized feminist lens, drawing upon a combination of Chicana and Black feminist thought, to analyze picturebooks from an early childhood curriculum. One goal of this study was to examine whether trends of underrepresentation and negative representation are evident in for early childhood curriculums. Though the books in the sample did show some attention to authentic cultural themes, implications for practice and research included the need for more balanced representation of diverse cultures that give voice and agency to young female children of color as they develop their personal and cultural identities.

Differences in Student Written Reflections During Participation in a Science Disciplinary Literacy Curriculum
Alana Newell & Nancy Moreno ~ Baylor College of Medicine
Misty Sailors ~ University of North Texas

Many early elementary students will opt out of persisting in science-related fields because they do not feel it connects to their identities. Explicit exposure to authentic science, and ways scientists use language (e.g., science-specific disciplinary literacy), may help students feel that they are members of the science community of practice. This study explores differences between 2nd grade students written reflections for those exposed to instruction in disciplinary literacy and those who only participated in science inquiry activities. Students in classrooms implementing the disciplinary literacy activities were more likely to include drawings in their reflections. Implications and next steps are discussed.

Secondary Student Influences for Interest in STEM Careers
Sandra Nite ~ Texas A&M University
Ji Hu Lee ~ Allen Academy

Students ($n = 50$) at a secondary school in Texas completed a survey about their interest and influences for interest in STEM subjects and careers. Students cited family and formal school influences as important influences. Many parents had STEM careers and encouraged their children to pursue STEM subject knowledge and careers. Formal school influences included self-efficacy in STEM subjects, special science, engineering, and mathematics projects, and teacher enthusiasm and encouragement. This study can give educators insight into ideas to encourage student participation in STEM opportunities in high school and STEM majors in college.

Effectiveness of Maker STE(A)M Program on 8-14 Years-Old Students' Perception of Their Problem-Solving Skills
Serkan Ozel ~ Bogazici University

The present study is a part of larger project designed and run by Turkey Educational Volunteer Foundation (TEGV) to improve Maker STE(A)M learning outcomes for disadvantaged and underrepresented students age 8-14 program. In the present study, I sought to investigate 336 students' perception of their problem-solving skills based on their demographic information such

as home educational resources, their sense of belonging to program, their confidence in their performances, and their views on engaging teaching. Overall results showed that attending the Maker STE(A)M programs had significant impact on students' perception of their problem-solving skills.

How Can We Improve Students' Disciplinary Literacy in Mathematics?
Seoyeon Park ~ Texas A&M University

The purpose of this study is to investigate how math teachers integrate reading practices in their teaching. Regarding strategies for reading mathematics texts, 148 secondary math teachers shared valuable suggestions including encouraging students' active reading in math texts with various activities and discussion, identifying key concepts, providing additional materials, or promoting students' motivations and curiosity on the target concepts. Text mining techniques, sentiment analysis and topic modeling, were employed to cross-validate the result of qualitative content analysis and provided additional supportive evidence on the research findings.

The Influence of Early-Childhood Teachers' Perceptions, Attitudes and Technology Proficiency on Educational Technology Use
Angela Plut ~ University of Houston - Clear Lake

The purpose of this study is to investigate the influence of early-childhood teachers' perceptions, attitudes, and technology proficiency on educational technology use in early-childhood classrooms. A purposeful sample of early-childhood teachers teaching grades Pre-K through first grade in a large suburban school district located in southeast Texas. Additionally, a sequential mixed-methods design was employed, and examination of quantitative survey results and qualitative interviews provided insight into early-childhood teachers' perceptions, attitudes, and proficiency of educational technology use in early-childhood classrooms. This study revealed the need for teachers to feel competent in their abilities to use educational technology in early-childhood classrooms, despite age or years of service.

Socialization of Doctoral Students into Academic Writing: Perceptions of a Week-Long Online Writing Intensive
Julie Smit, Elizabeth Jones & Mellinee Lesley ~ Texas Tech University

The purpose of our study was to document online doctoral students' experiences of a week-long online summer writing intensive with the goal of improving dissertation quality. We utilized socialization and networked learning theories to explore how two socialization networks met students' academic goals for writing. The first network was professor-led and it involved formal presentations and informal discussions. The second network was peer-led and it involved writing and mentoring groups. Results demonstrated the effectiveness of these networks in developing students' sense of belonging, sense of accountability to their peers, and a sense of self-worth as capable academic writers.

From the Front of the Screen: Parent and Student Perceptions of Virtual Learning
Marsha Sowell ~ Texas A&M University-Kingsville

Due to the COVID-19 pandemic, many public schools opted to begin the Fall 2020 school year with virtual instruction. Like any product, virtual instruction is only as valuable as it benefits the consumer. In education, the consumer is the student, but in the aspect of virtual instruction, the parent is also a consumer. Through semi-structured interviews, this study strives to identify the benefits and challenges parents and students perceive in their lived experiences with virtual instruction in Fall 2020. Education stakeholders can use these findings to better address the learning needs of students and families participating in virtual instruction.

Effects of a Video Game on Failure Rates in an Engineering Calculus Class
Andre Thomas & Michael Rugh ~ Texas A&M University

The purpose of this large-scale quasi-experimental study is to examine the odds of students passing Calculus I after playing a calculus-based video game. We used odds ratios to compare a randomly selected experimental group ($n = 489$) and control group ($n = 1,027$) of undergraduate students. We found that use of the game was associated with positive outcomes in the class ($OR = 1.52$, 95% CI [1.01, 2.30], $p < .05$). We suggest that a causal relationship should be explored as well as the varying effects that different amounts of gameplay have on mathematics learning outcomes.

The Relationship Between Self-efficacy and Academic Achievement or Interest in a STEM Career: A Meta-Analysis
Katherine Vela & Sandra Miles ~ Utah State University

Pursuit of a STEM career is impacted by a students' academic success and self-efficacy. The demand for a STEM-literate society and an increase in the number of jobs available in STEM fields has pushed researchers to look for avenues to increase students' self-efficacy and interest in pursuing a STEM career. The purpose of this paper is to look meta-analytically to determine differences in self-efficacy and explore the relationships between self-efficacy and academic achievement or interest in STEM careers. These results will provide generalizable information for educational researchers and educators by identifying factors which significantly improved students' self-efficacy toward STEM.

IB MYP Language Courses within Middle Schools in China and Taiwan: Implementation and Difficulty
Liang Ward ~ The University of Texas at San Antonio

The purpose of this study was to probe into the conditions and difficulties that impede the implementation of the International Baccalaureate (IB) Middle Years Programme (MYP) language courses within middle schools of China and Taiwan through examining the perceptions of middle school teachers from China and Taiwan. The research design for this study was based on a qualitative method using semi-structured interviews for data collection and the comparative cross-case analytic strategy for data analysis. The results from this study provide relevant information that can be a great reference for IB MYP designers, school district leaders, and

educational policy makers in the implementation and development of the IB MYP within middle-school language courses in China and Taiwan.

Explorative Study of A Teaching Method for Chinese Hanzi and Japanese Kanji Character Acquisition
Liang Ward & Makiko Fukuda ~ The University of Texas at San Antonio

Given the Chinese Hanzi and Japanese Kanji characters share considerably similar writing systems and word meanings (Hu, 2012), the purpose of this study is to examine the practice and effectiveness of teachers' collaborative teaching using the researchers' Hanzi-And-Kanzi character comparisons (HAKCC) instructional model on students' character acquisition. Based on a mixed methods research design, the results from this study will explore whether or not this collaborative teaching model increases students' interest in learning Mandarin Chinese, reduces their fear of learning Chinese Hanzi characters, and improves their Hanzi and Kanji character learning outcomes.

Paradigm Shift: Education in the Age of AI
Joseph Webster ~ Texas A&M University

Due to recent advancements in technology, the flow of information in society is fundamentally different than ever before in human history. These changes are leading to anomalies in the functioning of institutions in human society, with education uniquely positioned in its ability to pave a way forward through these anomalies. In this paper, I present an analysis of Kuhnian revolutions throughout history, and conclude that the current time period represents a fast-approaching critical point that will induce a paradigm shift in education, information flow in general, and society as a whole. Potential adaptive strategies for approaching this shift are discussed.

Examination of School and Classroom Factors Effecting on Students' Mathematical Achievements via Multilevel Analysis with the Data Sets of TIMSS 2015/2019
Zhidong Zhang & James Telese ~ The University of Texas Rio Grande Valley

This study is to examine the classroom factors impacting students' mathematical achievement. Multilevel techniques were used in data analysis. The analysis indicates that the impact of student background characteristics on mathematical achievement is significant. The results indicated that student age is a significant factor to impact students' learning. The results also indicated that students' attitudes and confidence in mathematical learning are important.

DIVISION III ~ ASYNCHRONOUS SESSIONS
Methodology, Measurement, and Evaluation

Deep Metric Learning to Evaluate Student Performance on Standardized Tests
Ben Aubin & Carol Raymond ~ EA Young Academy
Michael Rugh ~ Texas A&M University
Michael Greer ~ Colorado State University

We propose a triplet network design which generates vectors representing student understanding. The model was trained on a sample of students ($n = 393,609$) and questions ($n = 54$) from the 2017 seventh grade math STAAR test. The model predicts student results more accurately than a randomly initialized model, by a factor of 1.96. Triplet learning networks are known to provide vectors with a useful distance metric, even when given discrete data (Hoffer & Ailon, 2014), which offers opportunities for novel analysis methods. For example, by using a clustering algorithm, educators could more precisely target instruction to students.

Painting Outside the Lines: Using Portraiture to Examine the Aesthetics of Research
Whitney Beach, Elizabeth Stewart & Mellinee Lesley ~ Texas Tech University

As the walls of traditional parameters are morphed and stretched daily, this inquiry focused on reframing a research methodology by purposefully seeking a more positive way to include research participants and analyze data. This study followed five teachers over a two-year period as they were included in a university partnership, where they were asked for their input into re-framing literacy in the English department in an "underperforming" high school. The results showed a craving for inclusion in the research process; the confidence to create changes based on data provided by partner research; and the commitment to institute a positive and honest narrative about their school in order to co-create a forward-thinking curriculum to better serve students.

Results of an Observational Study on Elementary School Student Engagement
Jorge Carmona Reyes, Truell Hyde & Leanne Howell ~ Baylor University
Shanna Attai ~ Midway ISD
Judy York ~ Education Service Center, Region 12
Kerri Ranney ~ Huckabee Inc.

Elementary school student engagement is a construct that can be both an immediate predictor for many metrics of interest, such as academic attainment and a later-in-life predictor for attrition, graduation, and even social-emotional behaviors. Thus, it is critical to understand elementary student engagement. In this work, we present an observation protocol based on recent pilot studies and a longitudinal study. This protocol was created to provide a snapshot of student engagement in the classroom and insight into how it is impacted by the learning environment.

Exploring First-generation College Students' Academic Motivation, Success, and Persistence: Preliminary Findings (SERA Research Grant Awardee Presentation)
Samantha Estrada ~ The University of Texas at Tyler
Chia-Lin Tsai ~ University of Northern Colorado

Academic motivation has been recognized as a key factor to academic success and persistence among college students including first-generation students. Previous studies in this area have found a positive relationship between academic motivation and persistence among first-generation students through a variable-centered approach. Few studies have adopted a person-centered approach to explore the relationship between motivation profiles and school persistence. The overarching purpose of the study is to examine whether first-generation college students' motivation orientation is related to persistence and learning outcomes. This presentation will focus on preliminary findings while the data collection is on-going.

Using Excel to Model Infectious Diseases
Kevin Kalinowski ~ Sam Houston State University

In 2020, the world faced a pandemic due to a coronavirus disease (COVID-19), resulting in tens of millions of cases and hundreds of thousands of deaths across at least 235 countries (WHO, 2020). Like other infectious diseases transmitted from one host to another, COVID-19 can be modeled using a mathematical model known as SIR, where the population is divided into susceptible (S), infected (I), and recovered (R) individuals. In this paper, Microsoft Excel is used to store historical COVID-19 data, simulate the SIR model and fit it to the data, and test control measures, such as self-isolation, education, and vaccination.

Studying Developmental Growth with Multilevel Models for Linear and Categorical Change
R Noah Padgett, Laura Shero, Shan Jiang, Hiroki Matsuo, Sara Tomek & Grant Morgan ~ Baylor University

Methods for longitudinal modeling help gain insight into developmental processes. However, different modeling approaches allow for unique perspectives on developmental processes. We explored the development of depression using (1) multilevel growth modeling (ML-GM) and (2) multilevel latent transition analysis (ML-LTA) which conceptualize change over time in differently. ML-GM focuses on individual trajectories while ML-LTA identifies transitions through stages of depression. We used a subset of the public-use dataset, National Longitudinal Survey Youth ('97), for didactic use. Our talk and paper will focus on describing what inferences can be drawn using these different conceptual approaches.

Assessing Local Fit in Confirmatory Factor Models by Approximating Probabilities
R Noah Padgett ~ Baylor University

Validity evidence for factor structures underlying a set of items can come from how well a proposed model reconstructs, or fits, the observed relationships. Global model fit is limited in that some components of the proposed model fit better than other components. This limitation has led to the recommendation of examining fit locally within model components. A new

probabilistic approach to assessing local fit using a Bayesian approximation will be described and illustrated with the use of a simulated dataset. I will show how the posterior approximation closely approximated the sampling distribution of the true parameter. Potential limitations and possible generalizations will be discussed.

Comparing Relative Efficiency of Nonparametric to Parametric Methods using Monte Carlo Simulation
Laura Shero, R Noah Padgett, Hiroki Matsuo & Grant Morgan ~ Baylor University

It is well-known that Type I or Type II error control in parametric statistical inference is related to the tenability of various model assumptions. The purpose is to demonstrate situations in which nonparametric tests may be more powerful than parametric tests under varying degrees and types of model assumption violation. The method is simulation-based, using a new, mixture-based simulation method for generating distributions with varying degrees of nonnormality. The results of this study will provide applied researchers with important information that can be used for designing studies and/or getting the most statistical power out of the available data.

A Meta-Analysis on the Dissociation between Language Decoding and Reading Comprehension in Children with ASD or Hyperlexia: Latent Variables in SVR
Leily Ziglari ~ Texas A&M University

The current meta-analysis aimed to investigate dissociation between language decoding and comprehension of children with a reading disability such as Autism Spectrum Disorder (ASD)or Hyperlexia. I used Simple View of Reading (SVR) as a framework of the study. After collecting and categorizing the peer-reviewed journals in the past 20 years, I conducted the data analysis. The Q statistics and multiple regression analysis were used to analyze dissociation between decoding and comprehension, and to examine the latent variables of executive functioning in children with a comprehension disability. Results provided significant information regarding the reading process of children with a comprehension disability.

The Effect of the Language and Cognitive Components on the Reading Comprehension of Children with Reading Disability: Structural Equation Modeling
Leily Ziglari ~ Texas A&M University

This research study aimed to design a model of reading comprehension for children with a reading disability by incorporating both linguistic and cognitive components into the model. Simple View of Reading(SVR) claims reading comprehension is the product of decoding and listening comprehension; however, reading comprehension is also affected by cognitive components. I analyzed a pre-existing dataset from 360 students with a reading disability and analyzed with PLS Structural Equation Modeling. The results provided potential evidence base through which to revise SVR for a more impactful intervention. The proposed model will have the accountability potential for children with a comprehension disability.

DIVISION IV ~ ASYNCHRONOUS SESSIONS
Teacher and Teacher Education

Mentoring For Effective Teaching-Action Research Critical & Creative Thinking
Sandra Acosta & Lina Shu ~ Texas A&M University
Juanita Reyes ~ Tarleton State University

The purpose of the initial phase of Project METAS, which we report here, was to evaluate the feasibility and efficacy of an online mentor training workshop for bilingual education/ESL teachers. Sample comprised 5 bilingual education teachers. This action research had a pre-test/post-test design with post-survey featuring repeated measures. Other data were journal entries for module activities complete, a mid- and final-meta-analysis, and videos demonstrating a problem-solving activity focused on one of three approaches: math, engineering or inventive thinking. Feasibility and efficacy were supported by the successful completion of the demonstration videos and participant comments.

Building a Positive Relationship with Students in Virtual (Synchronous) Classroom
Salma Ali ~ Texas A&M University

This qualitative study explores teachers' views on the relationships with students in virtual (synchronous) classroom and how does it impacts on their professional roles. This research is based on thematic analysis of semi-structured interviews of 9 teachers from the community based school. In these conducted interviews, teachers indicated a confused or unclear status of relationship building in online classes. Teachers views show the uncertainty around their role and it does impact on building student- teacher relationship in virtual classroom proceedings.

Teachers' Struggles in Using Brain Breaks in Online Synchronous Classroom
Salma Ali ~ Texas A&M University

Despite technology has become an integral part and distinct feature of education in 21 st century and specifically Pandemic's impact on education and in the rise of online teaching, the importance of brain breaks significantly raised. The purpose of this research is to explore the effects of Brain Break activities on interest and motivation among school students while they study in synchronous online class. It is an action research and also current studies and researches used in this research to support that it designed to equip the Pre-Service and In-Service teachers with tools to manage the attention of the class and to keep children in the most receptive state for learning.

Texas Charter School Teachers' Experiences regarding STEM Project Based Learning
Akerke Andagul & Karlygash Ospan ~ Charter Schools
Yetkin Yildirim ~ Rice University
Emel Cevik ~ Texas A&M University

Implementing STEM PBL (Project Based Learning) into schools has been gaining popularity over the past years. Although there are a lot of activities dedicated to improving STEM teacher

qualities, the previous literature does not provide clear versions of effective STEM PBL professional development programs for charter school teachers. In this paper, we will illustrate the efforts and challenges to include STEM PBL curriculum into the charter school system in Texas as told from the teachers' perspective. In this sense, we explored and compared the experiences of three charter school teachers who implemented STEM (PBL) instructional approach into their school curriculum.

The 2020 STEMulus is Here! Cross-curricular Teaching STEM and Social Studies Education
Mary Curtis ~ The University of Texas at Arlington
Carol Waters ~ University of Houston - Clear Lake

STEM education has enjoyed a central focus in 21st century K-12 education. However, grounding STEM in social studies may enhance learning potential and practical application of both curricula. Lack of teacher awareness of curricula connections makes it challenging to tell the full story of humans and hinders transference of knowledge and skills to new learning experiences. This session explores how the social science and STEM disciplines strengthen the development of foundational, interdisciplinary schemas that have the potential for richer, more extensive learning experiences. Limited teacher knowledge and awareness of curricula connections can impede identifying relevant linkages across content areas.

How Culturally Responsive Teaching Positively Affects Classroom Management
Vernessa Evans ~ University of North Texas
Lakia Scott ~ Baylor University

Classroom management is consistently identified as a concern for teachers; however, it is absolutely an essential component of effective teaching. Research over the past 30 years indicates that classroom management is critical for effective teaching but considered the most challenging issue for both new and veteran teachers. To engage students effectively in the learning process, teachers must recognize their students' different qualities so instruction can be designed to connect content to students' backgrounds. This study contributes to a greater understanding of providing specific strategies for building a positive school culture and awareness of culturally responsive classroom management for all educators.

'This is so White': Black and Brown Pre-Service Teachers' Experiences in Predominantly White Educator Program
Jennifer Grace ~ University of Houston - Clear Lake
Rachael Aming-Attai ~ University of South Florida

Using a Critical Race framework, this study examined the experiences of pre-service teachers from historically underrepresented backgrounds and their sense of belonging in their predominantly white educator preparation program. The authors conducted semi-structure interviews with 9 African American and Hispanic pre-service teachers. Findings reveal perceptions of the degree to which race and ethnicity shapes the educational experiences of participants and elucidates areas of focus when creating inclusive practices. Furthermore participants describe feelings of isolation in white spaces, and self-efficacy impacted by

microaggressions. Based on the findings, practical recommendations for supporting the educational experiences of pre-service teachers of color.

Mentoring University Instructors: Transitioning to Online Teaching during COVID-19
Janet Hammer, Robin Rackley & Karen McIntush ~ Texas A&M University

The purpose of this study was to analyze the impact that Online Instructional Mentors had on instructors at a Tier 1 research university during the unexpected transition to online teaching as a result of the COVID pandemic. As the COVID-19 pandemic impacted schools globally faculty nationwide created virtual classrooms. As faculty at a large university in Texas, worked to transition their courses to an online format, it was recognized that some graduate students and faculty were teaching in a web-based environment for the first time. Efforts were put in place to mentor these faculty during this transition and to make certain their students' needs and concerns were addressed.

Explore the Patterns of Teacher-Student Interaction: Relationship to Emotional Intelligence and Teacher Efficacy
Shan Jiang, Sara Tomek & Noah Padgett ~ Baylor University

This study explored the patterns of teacher-student interaction by using k-means clustering. Teacher-student interaction was examined under the framework of Classroom Assessment Scoring System which evaluated teachers' support to students in three broad domains, classroom management, emotional support, and instructional support. A secondary dataset with a total of 273 teachers was utilized. A 3-cluster solution was discovered with (1) a profile of high support, (2) a profile of low support, and (3) a profile of high in classroom management, moderate in emotional support and low in instructional support. Teachers of different profiles also differed in emotional intelligence and teacher efficacy.

Gender Non-Conformity in Julián is a Mermaid
Dani Kachorsky & Alexandria Perez ~ Texas A&M University-Corpus Christi

Jessica Love's (2018) debut picturebook, Julián is a Mermaid, is a Stonewall Book Award-winning picturebook that explores issues of gender, identity, and social stigmas. This study explores how Love's representation of Julián's character challenges gender stereotypes for young men. We consider the inter- and intra-modal aspects of the picturebook and explore how Love uses both individual modes and modes in combination to "normalize" Julián's love of mermaids, his desire to be a mermaid, and his abuela's acceptance of his transformation into a mermaid.

Supporting Teachers in Remote Learning: Impact of COVID-19 on Teacher's Feelings of Competence, Connection and Autonomy
Karen McIntush & Jeffrey Keese ~ Texas A&M University

This qualitative research study, conducted in the spring 2020 semester, explored teachers' feelings of competence, connection, and autonomy in remote instruction during the COVID-19 campus closures, using the lens of the Self-Determination Theory. Two virtual interviews and

one focus group were conducted with 14 teachers from varied school contexts, with a priori themes. Findings reveal supports that served teachers' needs as well as the impact of transitioning in a crisis situation. Recommendations for future research and practice will be discussed.

Hybrid Methods Course Model: Evidence from the Field
Christina McIntyre, Emily Reeves, Daphney Curry & Austin Manuel ~ Midwestern State University

Feedback from the traditional Secondary Methods courses that are conducted in the PDS setting demonstrated clear frustration with the current model dividing preservice teacher time between their class time and time in the field. With this information, a hybrid secondary methods course model was designed and delivered with dramatically different feedback from both methods students in the field and PDS mentor teachers. The process included online content delivery, co-teaching in the field six hours a week with build in work days, specific practices geared toward the state license exam, and additional supports for communication, feedback from stakeholders, and university professor.

Comparison of Faculty and Student Perceptions of Good Practices in Traditional and Co-requisite Developmental Mathematics Courses
Amy Nabors ~ Lone Star College

Perceptions of faculty members' and students' use of classroom practices was compared. Participants were three adjunct developmental mathematics instructors and their students from a large community college system in Texas. Confidence intervals were used as a mechanism to compare responses on the Seven Principles Faculty Inventory or Student Inventory. Patterns observed in the confidence intervals indicated (a) consistent behaviors among students across classes and (b) incongruence among students and their teachers on most items.

A Review of Research on How Teacher Education Programs Prepare Preservice Teachers for Differentiated Instruction
Chau Nguyen & Aaron Zimmerman ~ Texas Tech University

This review focuses on research related to how teacher education programs prepare preservice teachers for differentiated instruction. The synthesis of research reviewed generated two themes: (a) courses related to differentiated instruction and clinical experiences promote preservice teachers' readiness for differentiated instruction, and (b) teacher educators' implementation of congruent teaching or 'teaching as they preach' enhances preservice teachers' preparedness for differentiated instruction. Grounded in these findings, implications for teacher education programs and practitioners are made.

STEM Self-Efficacy and Pre-Service Teachers: Results from an Undergraduate Research Experience
Erin Pearce, Jesse Brock & Phillis Bunch ~ Tarleton State University

Numerous preservice teachers (PSTs) have low self-efficacy regarding STEM education classroom integration. Research reveals that learning about STEM education through research engagement aids PSTs' overall self-efficacy. While efforts are being made at making education preparation programs (EPP) more research-oriented, there is still a dire need for undergraduate research experiences (URE) centered on STEM content integration for PSTs. Using a mixed methods approach, this case study details the benefits an URE had on PSTs ($N = 5$) through an analysis of emerging themes and STEM self-efficacy survey. This presentation will utilize photographic evidence to provide a visual example of an implemented research experience.

Peer Prep: Preparing Teacher Candidates for Collaborative Reading Intervention
Bethanie Pletcher, Phyllis Robertson & Krystal Watson ~ Texas A&M University-Corpus Christi

This paper describes an after-school reading clinic experience that enhances the preparation of teacher candidates (TCs) to collaboratively administer assessments and develop, implement, and monitor interventions for students in need of reading support. TCs shared responsibility for tutoring one child, providing instruction for one hour per week on two different days. This collaboration was designed to not only benefit the TCs as they worked with one another in ways that mirror those of professional practice, but also benefit elementary-aged students from diverse communities. Quantitative and qualitative data was gathered to describe the impact of the project on the TCs.

Developing Pre-service Teacher Reflective Thinking using GoReact Video Annotation
Emily Reeves, Christina McIntyre & Daphney Curry ~ Midwestern State University

Video allows Pre-service teachers to focus on specific components of their teaching such as the impact of pedagogical decisions and their choice of management strategies. Video annotation software such a GoReact allows for the documentation of critical features at specific and relevant points in the video which are documented and time-stamped thus allowing for an evidence-based reflection that is richer, more thorough, and thus more meaningful and useful in improving practice. This study will specifically look at the effectiveness of GoReact rubrics and tags for feedback based on the TTESS, the current form that WCOE uses for clinical teacher evaluations.

Virtual Mentoring and Coaching: Professional Development for the 21st Century
Erin Singer & Beverly Irby ~ Texas A&M University

School districts are increasingly turning to online professional development to provide educators opportunities for iterative and persistent improvement in critical areas of curriculum, assessment, instruction, and technology. Changes in student demographics in the United States and the development of technology have shown that virtual professional development (VPD) and virtual mentoring and coaching (VMC) for teachers of English learning students (ELs) has become a valuable means to support these teachers and their students. In the spring of 2020, Project

MOOPIL provided online synchronous virtual mentoring and coaching to teachers across the state of Texas.

Teacher Self-efficacy (TSE) Reflects Teachers' Beliefs about their Ability to Handle Tasks and Challenges Related to the Teaching Profession
Celeste Sodergren, Todd Kettler, Tracey Sulak & Anna Payne ~ Baylor University

Teacher self-efficacy (TSE) reflects teachers' beliefs about their ability to handle tasks and challenges related to the teaching profession. TSE is related to job satisfaction, retention, motivation to learn and improve, and lower levels of stress. Teachers are expected to teach cross-curricular skills including creativity, problem-solving, and critical thinking. Using 2018 TALIS data, this study found that TSE varies by years of experience ($r = .118$), how prepared teachers believe they are to teach cross-curricular skills, and the role of an innovative, supportive environment. Teachers' preparation for teaching cross-curricular skills was the strongest predictor overall of TSE in the model.

The High Impact of Studying Abroad: Exploring Pre-Service Teachers' Teaching and Learning Experience in Taiwan
Monica Wong-Ratcliff ~ Texas A&M University-Kingsville

Kuh stated that high impact teaching and learning practices, such as study abroad programs and field-based service-learning projects, can help improve the quality of student learning, retention, and academic success. In Summer 2019, a group of 4 elementary pre-service teachers participated in a faculty-led 10-day Taiwan Study Abroad Program. The program involved a 2-1/2-day of English Camp in a local elementary school. This study was conducted to investigate the teaching and learning experience of the pre-service teachers in an English as a Foreign Language (EFL) context. The results showed that the participants believed the program helped them grow personally, professionally, and academically.

"I Lost a Part of Myself ... in the Best Way": Narrative Inquiry Exploring the Process of Cultural Competence
Cristina Worley ~ Texas A&M University

Urban schools need culturally competent teachers. Much of the current literature is dedicated to exploring how to prepare pre-service teachers, a workforce of mostly White females, for our diverse classrooms, but what about pre-service teachers who enter college more woke than the average middle to upper class White female? This partial autobiographical narrative inquiry explores 1) my experience gaining cultural competence informally and 2) the experience of an already culturally competent pre-service teacher before she took her first multicultural education class in college. Results reveal similarities between story arcs that aid understanding about the process of becoming culturally competent.

The Impact of STEM Research in Urban Education: A Citation Analysis
Jamaal Young, Michael Rugh & Jemimah Young ~ Texas A&M University

This study provides a characterization of the impact of science, technology, engineering, and mathematics (STEM) articles published in three urban education journals from 2014 until 2020. This citation analysis included 49 STEM-related studies retrieved from Urban Education, Education and Urban Society, and The Urban Review. The results indicate that STEM-related studies published in Education and Urban Society and Urban Education have a similar impact on the field based on the almost identical number of mean normalized citations, 13.60 and 13.50, respectively. Additionally, STEM integration is an important predictor of citation frequency within urban education journals.

Beginning Teacher Job Satisfaction: Knowledge and Interpersonal Relationship
Xiaofang Zeng ~ Texas Tech University

This study examined how teacher knowledge, interpersonal relationship, and the interaction of teacher knowledge and interpersonal relationship contributed to teacher job satisfaction. Fifty percent of the participants were randomly selected from all the teachers who participated in the 2012 teaching and learning international survey (TALIS) with no more than 5 years of teaching experience. Hierarchical multiple regression analyses were conducted. The results were cross-validated. The findings showed that decision participation, colleague support and teacher-student relationship contributed significantly to teacher job satisfaction.

How Do Early-Career Elementary Teachers Negotiate Between Efficiency and Flexibility While Teaching?
Aaron Zimmerman ~ Texas Tech University

Contemporary frameworks of ambitious teaching encourage teachers to enact flexible, student-centered instructional practices, and, yet, teachers must also manage a multidimensional set of practical concerns while teaching in the classroom. Findings from 24 post-lesson interviews from 12 early-career elementary teachers are presented, and the data is analyzed in terms of whether or not these teachers attempted to revise their instruction while teaching. The findings highlight the manner in which the pressure to complete predetermined lesson activities and the prominent concern to manage time efficiently shape early-career teachers' enactment in the classroom. Implications for teacher education are discussed.

DIVISION V ~ ASYNCHRONOUS SESSIONS
Special Populations and Counseling

Differences in College Readiness Rates of Students in Special Education Over Time
Misti Babino ~ Sam Houston State University

In this investigation, the degree to which students with disabilities were considered college-ready in (a) reading, (b) mathematics, and (c) both subjects between the 2016-2017 and 2017-2018 school years was addressed. Statistically significant differences were revealed in college readiness rates in reading, mathematics, and both subjects between these two school years. In all three-subject areas, students with disabilities performed higher on the 2017-2018 statewide assessments than on the 2016-2017 assessments, indicating positive growth. A more concerning finding revealed that less than 12%, 8%, and 5% of students in special education, respectively, were college-ready in reading, mathematics, and both subjects.

Summer Learning? The Effect of a Summer Enrichment Program on Secondary EL Language Acquisition
Rebecca DeLozier ~ Texas Tech University

The purpose of this study was to evaluate the impact of a voluntary summer enrichment program in partnership with the partner school district. The study measured changes in the language proficiency of English Learners who have participated in the program to non-participants over three years. Results suggest that participation in the program leads to increased English language proficiency, with more significant increases associated with increased years of participation. The results expand on the current understanding of the impact of summer experiences on ELs as well as benefiting the partner district stakeholders.

Experiences and Perceptions of Hispanic Males in Higher Education
Luis Gracia ~ University of Houston - Clear Lake

The theoretical frameworks guiding this study are Bandura's (1977) social-cognitive theory and Vygotsky's (1978) socio-cultural constructivism theory. The research questions that guided the study were, a) what is the perceived importance of a college education to undergraduate, traditional and nontraditional-aged, Hispanic males enrolled in higher education?; b) what perceptions do Hispanic males have about the impact of their lived experiences both within and external to the academic environment on their pursuit of a college education?; and c) what perceptions do university staff have about Hispanic males seeking a higher education and what they must do in order to achieve a university degree?

A Brief Analysis of Special Education Content in Texas Principal Preparatory Programs
Ann Le ~ Sam Houston State University

In this study, selected Texas principal preparation programs were examined using publicly accessible data from TEA and respective selected accredited sites. A brief overview of the five principal standards was discussed to help detail the many roles and responsibilities school

principals have, which support the purpose of the current research towards appropriate preparation of special education content and knowledge. An examination of principal preparatory programs in Texas is necessary to address the effectiveness of principal leadership. Concern for the general inconsistency of related training in accredited principal preparation programs in Texas is supported by the results of this review.

Special Education Service Model: A Program Evaluation
Ann Le ~ Sam Houston State University

Segregation has existed for children with disabilities for over half a century. Legislatures have made many attempts to improve access for students with special needs through provisions to the educational laws. Public schools must work collaboratively to ensure students with special needs are provided with a free appropriate public education that is in the least restrictive environment, which includes access to general education resources to the maximum extent appropriate. Working towards equity is critical in safeguarding nondiscriminatory educational programming in the best interest of that student to meet their academic and functional needs.

Using the Case Study Method to Demonstrate URM STEM Graduate Student Success and How to Promote Participation
Theresa Murphrey, Latoya Morris, Ra'sheedah Richardson, Shannon Walton, Asha Ganesan, Karen Butler-Purry & Rosana Moreira ~ Texas A&M University
Kimberle Kelly ~ Independent Consultant

A need for URM faculty in STEM fields has led to extensive programming efforts in higher education, but challenges remain as to how to best serve URM graduate students for faculty roles. We employed the case study method to allow outcome measurement to benchmark impact and document findings that could encourage students to take full advantage of available opportunities, even when benefits are not initially obvious. The case study methodology illustrated can be adopted across contexts, and is useful for exploratory investigations. This study was supported by the National Science Foundation's Alliances for Graduate Education and the Professoriate program.

Experiences of Intellectually Gifted Students with ADHD in Higher Education
Anna Payne, Maryann Hebda, Todd Kettler & Ryan Coleman ~ Baylor University

Attention-deficit hyperactivity can co-occur with giftedness, causing a unique combination of characteristics which identify the individual as twice-exceptional (2E). When 2E students enroll in college, there are a number of factors that can support or hinder their progress. This case study explores the lives of six 2E ADHD students at a Southeastern university. They report that primary sources of stress include grades and time management. Common challenges impacting students' functioning in the higher education setting include organization, planning, and preparation for classes. Important coping strategies were also revealed, commonly including communication with professors, family, friends, and the disability office at the institution.

Early Childhood Pyramid Model Implementation Systematic Review
Leonora Ryland ~ Baylor University

What is the status of current research (last 20 years) for effective implementation of The Pyramid Model? This systematic review highlights key implementation practices for a program-wide positive behavior support system within early childhood programs supporting two-month-olds to five-year-olds. Practitioners will benefit from a deeper understanding of research trends, quality indicators, and future areas of need in research.

FREE WORKSHOPS ~ ASYNCHRONOUS SESSIONS

APA 7th edition: The "Big 10"
Julie Combs ~ Sam Houston State University

Many changes were introduced in 2019-2020, including the 7th edition of the APA manual. In this workshop, we will discuss the big ideas of these changes. In addition, the "Big 10," which is a list of the most common APA errors noted by previous researchers, will be presented as a strategy for learning the most frequently used APA guidelines. Participants will leave with an editing checklist and an understanding of APA 7th edition.

Canonical Correlation Analysis as a General Analytic Model: Facts and Fiction
Kim Nimon ~ The University of Texas at Tyler
Linda Zientek ~ Sam Houston State University
Julia Fulmore ~ University of Dallas

Using the backdrop of canonical correlation analysis (CCA) as a general analytic model, this interactive workshop will test participants' knowledge regarding the parsimony of analyses subsumed by CCA. Participants will also be asked to question published research that presents a simplistic hierarchy of the general linear model (GLM) and to consider the benefits of considering a data-driven map. Finally, participants will be challenged to consider if chocolate consumption really boosts Nobel award chances and if statistical software packages like R ever provide misleading error messages related to GLM analyses.

Using Rmarkdown for Reproducible Research and Class Notes Organization
R Noah Padgett & Grant Morgan ~ Baylor University

In this workshop, we will introduce Rmarkdown as a platform for conducting reproducible research and organizing notes for class. Rmarkdown provides a computing environment that seamlessly integrates written components all within R. The integration of these two pieces allows for complex analyses to be decomposed into explainable pieces which facilitates communication among colleagues or students. We will describe (1) getting started, (2) basic features of a Rmarkdown file, and (3) methods for assembling an open-source collection of files for research dissemination or class notes organization. Our workshop will culminate in additional resources for advanced uses of Rmarkdown.

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