TRANSFORMING LEARNERS INTO LEADERS

34th Annual Marion Steele Research Symposium

April 12, 2019
Clayton Hall
Newark, Delaware

Hosted by

UNIVERSITY OF DELAWARE
EDUCATION & HUMAN DEVELOPMENT

Marion H. Steele

The Marion H. Steele Symposium honors the memory of Marion H. Steele, a 1928 graduate of the University of Delaware.

This symposium, sponsored by the College of Education and Human Development and the family of Marion H. Steele, in cooperation with the Delaware Association for Family and Consumer Science, features academic work by both undergraduate and graduate students in the fields of consumer and family sciences, human development, family studies, education, fashion and apparel studies, nutrition, and hotel, restaurant and institutional management.

At the University of Delaware, the study of home economics has evolved over time, previously residing within the Department of Family and Consumer Sciences, and is now located in the Department of Human Development and Family Sciences in the College of Education and Human Development (CEHD).

Ms. Steele dedicated her life to the field of home economics. She spent her 41-year career at the American Home Economics Association (AHEA) and served as longtime editor of the Journal of Home Economics (now the Journal of Family and Consumer Sciences), until her retirement in 1969.

Mr. and Mrs. Rodman Steele

Marion H. Steele's nephew, Rodman Steele, with CEHD dean Carol Vukelich and previous Steele Symposium award winners

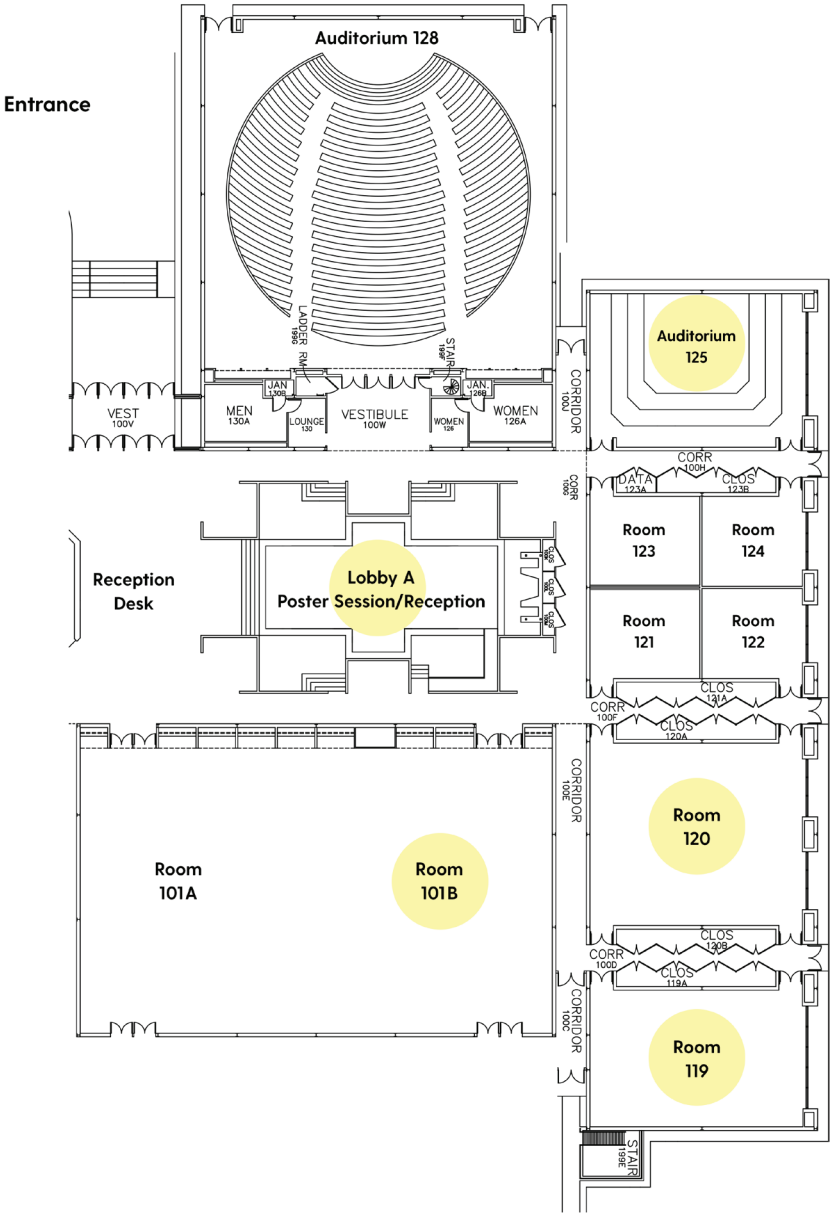
Upon her retirement from AHEA she was recognized with a Betty Lamp, a symbol of the mission of the organization and of her work. The Betty Lamp is on display in the lobby today.

She was a passionate supporter of this field, not only dedicating herself to producing a high-quality academic journal, but also taking an active interest in the development of the AHEA International Scholarship Program. She is credited for paving the way for dozens of students to engage in international study of home economics. Her groundbreaking support of international study is especially valued at the University of Delaware as we appreciate the significance that international perspectives provide within our fields of study.

Marion Steele's legacy at the University of Delaware continues through this symposium, recognizing research that reflects the high standards of scholarly work to which she dedicated her professional efforts. Her papers, donated by J. Rodman Steele, Jr., are housed in the University of Delaware Library Special Collections and are available for research.

We are grateful to the Steele family for their continued support of this symposium. For more information on the American Association of Family and Consumer Sciences, visit ***www.aafcs.org.***

Clayton Hall
Floor Plan



Steele Symposium Schedule
Friday, April 12, 2019

1:00-1:30pm CEHDTalks Room 125

CEHDTalks provide students the opportunity to present their research in a format similar to a TED Talk.

Sara Gartland
Ph.D. in Education student
But I was a Teacher: Reflections on the Disconnect Between Research and Practice

Annette Pic
M.S. in Human Development and Family Sciences student
Reclaiming Play: Why We Should Never Stop

1:40-2:40 PM Session 1

Panel 1A: Student Interest, Identity and Instructional Match

Room 101B

Chair: Dr. Amanda Jansen

Discussant: Bryan Campbell
Ph.D. in Education student
(Sociocultural and Community-based Approaches to Education)

Sara Gartland
Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)
*Access Granted?: A Review of Identity's Influence on the Learning of Mathematics**

Annastasia Purinton
Ph.D. in Education student (Literacy Development and Learning Problems)
*Exploring Instructional Match: The Decisions Quality Teachers Make**

Laura Willoughby
Ph.D. in Education student (Mathematics Education)
*Investigating Features of Mathematical Tasks and Their Influence on Secondary Students' Situational Interest**

Paper submitted in advance for discussion during panel presentation

Panel 1B: How Evidence and Data Inform Policy and Practice

Room 119

Chair: Dr. Horatio Blackman

Meng Fan and Rui Wang
Ph.D. in Education students (Evaluation, Measurement and Statistics)
Towards Evidence-based Decision Making: Consistency and Discrepancy between Practitioners' Search Efforts and Researchers' Dissemination Efforts

Gerilyn Slicker
Ph.D. in Human Development and Family Sciences student
Young Children's Academic and Social Development in Socioeconomically Diverse Pre-Kindergarten Classrooms

Ji-Young Yun
Ph.D. in Education student (Evaluation, Measurement and Statistics)
Understanding Factors that Influence Evidence-Based Practice Implementation and Their Interplay between Organizational Level and Individual Level

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Panel 1C: Intervention and Assessment in Reading and Writing

Room 120

Chair: Dr. David Coker

Discussant: Marcia Shirilla
Ph.D. in Education student (Learning Sciences)

Daniela Avelar
Ph.D. in Education student (Learning Sciences)
*Giggles and Smiles: Behavioral and Physiological Correlates of Shared Book Reading vs. Independent Tablet Reading**

Andrew Potter
Ph.D. in Education student (Literacy Development and Learning Problems)
*Assessing Text-Based Writing: Current Trends and New Directions**

John Strong
School of Education Ph.D. in Education student (Literacy Development and Learning Problems)
*A Mixed Methods Experimental Study of a Text Structure Intervention in Grades 4-5**

2:50-3:50 PM Session 2

Panel 2A: Teacher Decision-making about Equity and Instruction

Room 101B

Chair: Dr. Elizabeth Soslau

Discussant: Hui Yang
Ph.D. in Education student (Learning Sciences)

Diane Codding
Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)
*Grappling with Race and Equity: An Ethnography of Two Equity-Driven Classrooms**

Jenifer Hummer
Ph.D. in Education student (Mathematics Education)
*Secondary Teachers Engagement with Student Thinking During Lesson Study on Mathematical Modeling**

Matthew Melville
Ph.D. in Education student (Mathematics Education)
*Planning Practices of U.S. Middle School Mathematics Teachers - An International Comparison**

Panel 2B: Academic and Social Support for Children and Adolescents from Diverse Backgrounds

Room 119

Chair: Dr. Myae Han

Discussant: Angela Harris
Ph.D. in Education student (School Psychology)

Felicia Hurwitz
Ph.D. in Education student (Evaluation, Measurement and Statistics)
*The Importance of Household Relationships for Early Language Development of Head Start Children**

Jing Tang
Ph.D. in Human Development and Family Sciences student
*Exploring the Relationship between Delaware's Quality Rating and Improvement System Supports and Quality Changes in Family Child Care**

(continued on next page)

Christina Woodson
Ph.D. in Human Development and Family Sciences student
*Does Social Support Moderate the Association between Perceived Racial Discrimination and Externalizing Problems?**

Panel 2C: Improving Statistical Methods, and the Effects of Drug Abuse on Mental Health

Room 120

Chair: Dr. Zachary Collier

Discussant: Kati Tilley
Ph.D. in Education student (Evaluation, Measurement and Statistics)

Andrew Hurwitz
Ph.D. in Education student (Evaluation, Measurement and Statistics)
*Revisiting the Bayesian and Frequentist Statistical Judgment Framework**

Ginnie Sawyer Morris
Ph.D. in Human Development and Family Sciences student
*Examining the Effects of Maternal Binge-drinking and Marijuana Use on Children's Mental Health Trajectories: A Latent Class Growth Analysis**

4:00-5:00 PM Session 3

Panel 3A: Risk and Resources in Public Schools

Room 101B

Chair: Dr. Marika Ginsburg-Block

Discussant: Amanda Czik
Ph.D. in Education student (School Psychology)

Kathleen McCallops
Ph.D. in Human Development and Family Sciences student
Using Youth Risk Behavior Survey Data to Address Housing Instability in U.S. Public Schools

Jordana Woodford
Ph.D. in Education student (School Psychology)
*Walking a Fine Line: School Resource Officers' Views of Their Roles and Challenges**

Panel 3B: Math Understanding and Engagement

Room 120

Chair: Dr. Jim Hiebert

Brianna Devlin
Ph.D. in Education student (Learning Sciences)
Underpinnings of Early Addition: Investigating Number Partners Understanding

Tony Mixell
Ph.D. in Education student (Mathematics Education)
Student Interactions and Engagement for Beginning Group Problem Posers

Xiaoxue Zhang
Ph.D. in Education student (Evaluation, Measurement and Statistics)
Profiling Students' Math Engagement in 9th-grade: How Does Student Engagement Change Over One Academic Semester?

5:00-6:00 PM Poster Session

Lobby

Soumita Basu
Ph.D. in Education student (Learning Sciences)
An Exploration of Pre-service Teachers' Understanding of Computational Thinking Through Educational Programming Languages

Nicholas Bell
Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)
Exploring Measures of Equity Competence: Can Equity-Focused Teacher Preparation Make a Difference?

Aly Blakeney
Ph.D. in Economic Education student
School or Home? The Factors Most Impacting Student Financial Literacy

Julien Corven
Ph.D. in Education student (Mathematics Education)
Periodic Confusion: Examining Two Contemporary Textbook Units on Trigonometric Functions

Kelly Curtis
Ph.D. in Education student (Mathematics Education)
How Two Mathematics Textbooks Position Students Towards Mathematics

Kwaku Edusei
Ph.D. in Education student (Mathematics Education)
Game-Based Learning: What Students Think is Engaging and Educational

Dilek Eruslu
Ph.D. in Economic Education student
Investigation of Parent Political Efficacy: Evidence from Wilmington Area

Sara Gartland
Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)
"Warm-Strict": Expectation, Reality and a Method for Coping in a High-Needs Elementary School

Kelly-Ann Gesuelli
Ph.D. in Education student (School Psychology)
Changes in Students' Fraction Arithmetic Errors from Fourth through Sixth Grades in Response to Classroom Fraction Instruction

Caroline Morano
Ph.D. in Education student (Learning Sciences)
Parents' and Children's Questions: Asking About Geometric Shapes

Teresa Rush
Ed.D. in Educational Leadership student (Literacy Development and Learning Problems)
Response to Intervention for Adolescents At-Risk for Reading Failure: Implications for Effective Tier 2 Reading Interventions

Ye Shen
Ph.D. in Education student (Literacy Development and Learning Problems)
Cognate Awareness as a Longitudinal Predictor of Second Language Reading Comprehension: The Facilitating Effects of Word Identification and Vocabulary

Scott Sheridan

Ph.D. in Education student (Learning Sciences)

The Culture of Technology Use: An Ethnographic Exploration of One Teacher's Classroom

Meaghan Vitale

Ph.D. in Economic Education student

Confronting Instructional Change: An Examination of Teacher Self- and Collective Efficacy Beliefs

Nefetaria Yates

Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)

Modeling College: Perspectives on Being an Undergraduate College Readiness Coach

Fan Zhang

Ph.D. in Education student (Literacy Development and Learning Problems)

Assessing and Comparing the Writing Skills of English Language Learners and Monolinguals in First Grade

Haobai Zhang

Ph.D. in Education student (Learning Sciences)

Predictors of Fraction Word Problem Solving

Paper Presentation Abstracts *(alphabetical order by student name)*

Daniela Avelar

Ph.D. in Education student (Learning Sciences)

Giggles and Smiles: Behavioral and Physiological Correlates of Shared Book Reading vs. Independent Tablet Reading

Shared reading may also have emotional advantages over independent e-book reading. In the current study, we explored children's reading experiences through physiological arousal, facial affecting coding, and self-reported emotion. Thirty-seven four-year-olds and their mothers were randomly assigned to read a traditional book or an e-book together, or to listen to an e-book independently. Reading a traditional book with a parent was associated with greater physiological arousal measured by E4 multi-sensor bracelets which track Electrodermal Activity (EDA). Children's facial expressions were also more positive emotion when reading with a parent. These findings suggest that that reading with a parent is a different emotional experience than reading an e-book independently.

Diane Codding

Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)

Grappling with Race and Equity: An Ethnography of Two Equity-Driven Classrooms

This study offers an ethnographic exploration of how white, equity-focused teachers are thinking about and grappling with equity as they make decisions in their racially diverse classrooms. Although good-intentioned, white educators continue to hold deficit views and biases toward their students of color, and these good-intentions are not sufficient for advancing equity. The findings of this ethnographic study expose several barriers to equity and suggest that even teachers well-versed in equity literature continue to grapple with internal biases and external barriers. This study suggests that underneath a cloak of good intentions and equitable aspirations there remain numerous unaddressed misconceptions of whiteness and the role of whiteness in perpetuating systemic racism in education.

Brianna Devlin

Ph.D. in Education student (Learning Sciences)

Underpinnings of Early Addition: Investigating Number Partners Understanding

Competence with number operations in kindergarten predicts math achievement and growth in primary school. Research must identify precursors of arithmetic knowledge in order to target intervention. One likely precursor is the understanding of number partners (Fuson, 1992), that is, that whole numbers are made up of smaller sets of cardinal values (e.g. Inside 7, there is 5 and 2, 4 and 3). Precisely when and how this understanding develops, and how it is linked to early addition, has received little attention. Results of pilot testing of researcher-developed measures of number partners understanding will be presented. Plans for a future study focused on detailing the developmental progression of number partners understanding and its link to early arithmetic will also be discussed.

Meng Fan and Rui Wang

Ph.D. in Education students (Evaluation, Measurement and Statistics)

Towards Evidence-based Decision Making: Consistency and Discrepancy between Practitioners' Search Efforts and Researchers' Dissemination Efforts

This paper presents pilot results from a research center funded by IES to develop and validate surveys to measure the role of data and research in school-based decisions. This paper used an exploratory

sequential mixed methods design to investigate the consistencies and discrepancies between practitioners' search efforts and researchers' dissemination efforts. Based on the emerged themes (fee and time) from qualitative data, instrument items were created and pilot-tested in large-scale surveys. Results showed that practitioners spent more time gathering and evaluating evidence, and preferred to use both publicly-free and paid information together, to inform organizational decisions than individual strategies. Researchers' dissemination efforts are also discussed in this paper.

Sara Gartland

Ph.D. in Education student (Sociocultural and Community-based Approaches)

Access Granted?: A Review of Identity's Influence on the Learning of Mathematics

This paper reviews literature on identity within the context of mathematics education. Specifically, it aims to establish connections between identity and learning. Two research questions guide the review: (1) How do authors define identity? (2) In what ways does identity development affect student learning of mathematics? Systematic analysis of 27 articles generated a framework for categorizing definitions of identity, methodological techniques employed, and the specific information about effects on learning. Moving towards an extended definition of identity allows for a nuanced understanding of power, equity and access, which is an increasingly important area of study.

Jenifer Hummer

Ph.D. in Education student (Mathematics Education)

Secondary Teachers Engagement with Student Thinking During Lesson Study on Mathematical Modeling

Mathematical modeling is an important mathematical practice, yet secondary teachers have been challenged with implementing open-ended modeling tasks and facilitating discussions. When teachers plan how to engage with student thinking ahead of time, they are better prepared to facilitate mathematical discussions which can lead to conceptual understanding. Lesson study, a Japanese method of professional development, can support teachers in engaging with student thinking through studying curriculum, planning a lesson, teaching and observing the lesson, and reflecting and improving on the lesson. This study investigated how teachers participating in lesson study on mathematical modeling engaged with student thinking throughout the phases of lesson study.

Andrew Hurwitz

Ph.D. in Education student (Evaluation, Measurement and Statistics)

Revisiting the Bayesian and Frequentist Statistical Judgment Framework

Frequentist approaches to statistical inference have dominated the social sciences; however, in recent years, Bayesians statistics have seen an increase in popularity as more social scientists are receiving training and beginning to use these methods in their work. Consensus regarding the reasons for the rise in popularity of Bayesian statistics lacks agreement but interpretive ease of statistical results is thought to be the leading contender for the rise in Bayesian methods. In this presentation, I revisit a conceptual framework developed to understand Bayesian v. Frequentist statistical judgment and expand upon this framework by sharing a novel empirical experiment aimed at identifying how individuals reason about statistical evidence in the context of other competing decision elements.

Felicia Hurwitz

Ph.D. in Education student (Evaluation, Measurement and Statistics)

The Importance of Household Relationships for Early Language Development of Head Start Children

The relationship between household composition and early language development is complex and driven by a variety of confounding factors. As such, it is important to seek to connect the causal influences of early language development as they relate to household composition. This presentation will describe a novel conceptual model as well as plans for exploring how the factors related to household composition may explain differences in language outcomes for children enrolled in Head Start in this critical period of development. By identifying the types of relationship compositions associated with larger or smaller learning gains, this study's results will provide important insights into how families and organizations might best provide supports to the children that need them the most.

Kathleen McCallops

Ph.D. in Human Development and Family Sciences student

Using Youth Risk Behavior Survey Data to Address Housing Instability in U.S. Public Schools

This study provides a snapshot of housing instability in Delaware based on Youth Risk Behavior Survey (YRBS) data from the 2011-2017 academic years, including 23,003 students in grades 6-12. Descriptive and logistic regression analyses were conducted to characterize student demographics. Results demonstrated that 3.2% of students

were experiencing housing instability, consistent across all three counties regardless of population size and density. In addition, males, students of color, and high school students were more likely to experience housing insecurity. This study shows how YRBS data can be used to understand the prevalence of housing instability and to inform schools and communities how to support housing unstable students' academic needs.

Matthew Melville

Ph.D. in Education student (Mathematics Education)

Planning Practices of U.S. Middle School Mathematics Teachers - An International Comparison

Planning productively is crucial to enabling teachers to teach using an inquiry method. If teachers in the U.S. lack good planning practices, then it is likely due to either weak knowledge about how to plan or to constraints of their daily work routines (e.g., lack of time, curriculum materials, etc.). Thus, sorting out the reasons for any deficiencies in their planning will allow targeting support for better planning where it is most likely to be helpful. However, "good" planning practices are not well defined; therefore, to teach high quality lessons, what teachers should plan and how teachers should spend their time during planning is still unclear. Even so, one perspective of good planning could be gained through comparing U.S. teachers to teachers who are known to produce the like.

Tony Mixell

Ph.D. in Education student (Mathematics Education)

Student Interactions and Engagement for Beginning Group Problem Posers

Mathematics classrooms have reflected little change over the past century. Because research and policy have promoted problem posing and collaboration in mathematics, I investigated student engagement and interactions during group problem posing. I led a five-day intervention in an Integrated Mathematics 2 classroom. Students were heterogeneously grouped, were provided with mediating artifacts and were given the opportunity to identify, enact and negotiate their roles. Transcriptions of videotaped sessions of one group of three students were analyzed. Students differed in their engagement and interactions. As two of the students took a more cooperative rather than collaborative approach, the third student struggled to participate altogether. Results and implications are discussed.

Andrew Potter

Ph.D. in Education student (Literacy Development and Learning Problems)

Assessing Text-Based Writing: Current Trends and New Directions

This literature review examines how text-based writing is assessed in research. Students are increasingly asked to perform tasks such as answering text-based questions and synthesizing multiple texts. Assessing these tasks is challenging because reading and writing present two related yet different constructs. Current research in assessing text-based writing include (a) measuring writing processes through think aloud protocols, (b) descriptive studies of large-scale assessments, (c) assessment design and (d) experimental designs with text-based writing outcomes. Future research directions should consider (a) developing assessments with reliability and validity, (b) including measures of reading comprehension and content knowledge and (c) researching writing processes and development.

Annastasia Purinton

Ph.D. in Education student (Literacy Development and Learning Problems)

Exploring Instructional Match: The Decisions Quality Teachers Make

The suggestion that instructional practices should be matched to individual and specific student needs is a long standing concept in education research. Recent research indicates that the match between a student's potential area of growth and teacher instruction is critical for student achievement. This review will focus on the practice of instructional match in literacy as well as specific practices that promote instructional match, such as differentiated instruction. A review of the literature will be presented. Plans for future research and implications of instructional match with English Language Learners will be discussed.

Ginnie Sawyer Morris

Ph.D. in Human Development and Family Sciences student

Examining the Effects of Maternal Binge-drinking and Marijuana Use on Children's Mental Health Trajectories: A Latent Class Growth Analysis

Maternal substance abuse has been shown to adversely affect children's behavioral development; however, extant research focuses on extreme patterns of problematic substance use (SU; heavy drinking). Using latent class growth modeling to analyze longitudinal data from the Fragile Families and Child Wellbeing Study (N = 4,898), we sought to 1) characterize children's externalizing and internalizing behavior trajectories across three distinct developmental periods, and 2) explore whether moderate patterns of maternal SU predict class membership. Findings revealed that moderate

patterns of maternal SU may negatively affect children's development as early as age five, making it critical to equip family health practitioners with the tools to screen for and treat maternal SU.

Gerilyn Slicker

Ph.D. in Human Development and Famly Sciences student

Young Children's Academic and Social Development in Socioeconomically Diverse Pre-Kindergarten Classrooms

Pre-kindergarten (pre-K) programs are widely regarded as a policy mechanism to narrow socioeconomic gaps in children's academic skills at kindergarten entry; yet, the specific aspects of pre-K that result in children's improved achievement are less clear. In this literature review, children's cognitive, language and social-emotional outcomes in socioeconomically diverse pre-K classrooms are reviewed. Research findings suggest that children from all income backgrounds benefit—both in academic achievement and in other ways that prepare them to be successful in a diverse workforce and society. Evidence suggests children from low-income families benefit most, which may reduce socioeconomic gaps in school readiness. Recommendations for further research and policy implications are discussed.

John Strong

Ph.D. in Education student (Literacy Development and Learning Problems)

A Mixed Methods Experimental Study of a Text Structure Intervention in Grades 4-5

This mixed methods experimental study investigated the effects and social validity of a text structure intervention in grades 4-5. Teachers were randomly assigned to deliver the text structure intervention or a comparison intervention. Pretest-to-posttest gains on quantitative measures of text structure knowledge, reading comprehension and writing quality were analyzed using analyses of covariance. Qualitative interviews were analyzed typologically to understand teachers' perceptions of the social validity of the intervention. Quantitative results indicated that intervention students outperformed comparison students on several researcher-developed measures. Qualitative results indicated that teachers found the intervention goals, procedures and effects to be socially valid.

Jing Tang

Ph.D. in Human Development and Famly Sciences student

Exploring the Relationship between Delaware's Quality Rating and Improvement System Supports and Quality Changes in Family Child Care

The purpose of this study is to examine the relationship between Delaware's quality rating and improvement system supports and quality changes in family child care (FCC) programs. Data was extracted from Delaware's QRIS administrative database on 64 FCC programs participating in the Delaware's QRIS between 2012 and 2018. FCC quality was measured by Family Child Care Environment Rating Scale-Revise in 5 areas: space and furnishing, listening and talking, activities, interactions and program structure. The results indicated that FCC quality improved in all areas over time. Grants received through QRIS were associated with the changes in Space and Furnishings. In addition, on-site technical assistance was positively associated with the change in Interactions and Program Structure.

Rui Wang and Meng Fan

Ph.D. in Education student (Evaluation, Measurement and Statistics)

Towards Evidence-based Decision Making: Consistency and Discrepancy between Practitioners' Search Efforts and Researchers' Dissemination Efforts

This paper presents pilot results from a research center funded by IES to develop and validate surveys to measure the role of data and research in school-based decisions. This paper used an exploratory sequential mixed methods design to investigates the consistencies and discrepancies between practitioners' search efforts and researchers' dissemination efforts. Based on the emerged themes (fee and time) from qualitative data, instrument items were created and pilot-tested in large-scale surveys. Results showed that practitioners spent more time gathering and evaluating evidence, and preferred to use both publicly-free and paid information together, to inform organizational decisions than individual strategies. Researchers' dissemination efforts are also discussed in this paper.

Laura Willoughby

Ph.D. in Education student (Mathematics Education)

Investigating Features of Mathematical Tasks and Their Influence on Secondary Students' Situational Interest

Student interest in math has been shown to drop noticeably as students enter high school (Fredricks & Eccles, 2002). However, interest is malleable, and educators can influence it through various ways including task selection. Using the first two phases of Hidi and Renninger's (2006) four-phase model of interest, triggered and maintained situational interest, I will explore how students with low situational interest in math notice and respond to features of math tasks. Students will solve and discuss four math tasks which include features that have been conjectured to increase student interest,

realistic context, multiple solution methods and the opportunity to explain or justify responses. I will analyze whether the students' interest is triggered or deactivated by the intended features.

Jordana Woodford

Ph.D. in Education student (School Psychology)

Walking a Fine Line: School Resource Officers' Views of Their Roles and Challenges

School resource officers (SROs) are asked to enact a complex role that encompasses teaching, mentoring, and law enforcement. Evidence regarding effectiveness of SROs producing safer schools is mixed and standards for selection or training varies across states. Limited information is available on how SROs interact with school administrators and staff in enacting their roles. This study is designed to examine SRO's views regarding their roles, challenges and training with the goal of identifying areas of improving collaboration between police and schools. Eleven SROs were interviewed. Data were analyzed using Consensual Qualitative Research methods to identify core ideas. SROs primarily conceptualized their roles with school safety and prevention of crime. Implications will be discussed.

Christina Woodson

Ph.D. in Human Development and Family Sciences student

Does Social Support Moderate the Association between Perceived Racial Discrimination and Externalizing Problems?

A disproportionate majority of African American adolescents report experiencing discrimination. Despite its overwhelming link to mental health outcomes, research linking its effects to externalizing problems is limited. However, there is an increased prevalence of comorbidity of internalizing and externalizing problems among adolescents. This study utilizes a national probability sample to test the effects of perceived racial discrimination on adolescents' externalizing problems, above and beyond the effects of internalizing problems; the moderating effect of social support is also tested. Results were significant for perceived racial discrimination and the moderation effect of social support. Findings suggest meaningful implications for treatment and support around substance use.

Ji-Young Yun

Ph.D. in Education student (Evaluation, Measurement and Statistics)

Understanding Factors that Influence Evidence-Based Practice Implementation and Their Interplay between Organizational Level and Individual Level

The goal of this paper is to identify factors which affect evidence-

based practice in psychology (EBPP) implementation. Particularly, this paper focuses on not only the factors themselves but also the relationships between the factors while exploring the interplay between organizational-level factors and individual-level ones. This study is performed in the context of the State of Delaware's project that aims to implement the GAIN (Global Assessment for Individual Needs) as an EBP assessment tool for the standard of care for Delaware youth receiving substance abuse treatment under a public insurance plan. To address my research question, I look into the characteristics of 42 clinicians who participated in the one-year training program for the EBP implementation.

Xiaoxue Zhang

Ph.D. in Education student (Evaluation, Measurement and Statistics)

Profiling Students' Math Engagement in 9th-grade: How Does Student Engagement Change Over One Academic Semester?

Student mathematics engagement is critical in secondary schools, particularly at the 9th-grade level. Using a validated survey instrument from the SMiLES [Secondary Mathematics in-the-moment Longitudinal Engagement Study] project, we administered a survey of math engagement and learning environment to 201 9th grade students from 10 teachers' classrooms in Delaware and Arizona at the beginning and the end of the spring semester in 2018. In this study, we examined how student engagement changes over one academic semester using cluster analysis and cluster transition analysis. We identified profiles of students as well as changes in their student engagement over the academic semester in spring 2018. Results and further implications are discussed.

Poster Presentation Abstracts *(alphabetical order by student name)*

Soumita Basu

Ph.D. in Education student (Learning Sciences)

An Exploration of Pre-service Teachers' Understanding of Computational Thinking Through Educational Programming Languages

This study investigates the development of CT skills and knowledge in pre-service teachers after they were exposed to a CT-infused course module that emphasized engagement with visual-based programming languages such as Scratch and Hour of Code. Analyses of Scratch-integrated hypothetical lesson plans and reflections on programming experiences were conducted. Results reveal that although a number of teachers were able to successfully integrate Scratch into suitable content areas, they struggled to indicate supported CT concepts and

practices in the lesson plans. This research has implications for designing elementary education courses that focus on CT skills and contribute to the development of such competencies in pre-service teachers.

Nicholas Bell

Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)

Exploring Measures of Equity Competence: Can Equity-Focused Teacher Preparation Make a Difference?

Social justice teacher educators are preparing future teachers to take on the political enterprise of justice-based teaching. To better understand how to prepare preservice teachers, we conducted an experimental study (N=105) to examine the effectiveness of an intervention designed to develop preservice teachers' equity knowledge, skills and beliefs. Treatment participants (N=48) learned about recognizing inequities, responding to inequities and enacting justice-based pedagogies. Using structural equation modeling to create an overall equity latent variable, quantitative results suggested the intervention significantly affected preservice teachers over time. Researchers used coding schemes to understand teacher candidates' development of a social justice identity.

Aly Blakeney

Ph.D. in Economic Education student

School or Home? The Factors Most Impacting Student Financial Literacy

Within the personal finance literacy research field, it is commonly believed that a student's financial literacy level is dictated by their background and home life--parental education level and work status, socioeconomic status, discussions at home regarding finances, etc. This study hypothesizes that though these factors play a role, the biggest determinant of students' personal finance literacy is the school they attend. Utilizing data collected on 15-year-old students worldwide by the Programme for International Student Assessment (PISA) 2012 Financial Literacy Survey, multilevel analyses at the student, school, and country level are preformed. Preliminary results are presented.

Julien Corven

Ph.D. in Education student (Mathematics Education)

Periodic Confusion: Examining Two Contemporary Textbook Units on Trigonometric Functions

The purpose of this study was to examine two contemporary textbook units on trigonometric functions to understand what opportunities to

learn they each provide to students. To fully understand how each text gave students opportunities to deeply learn trigonometry required examining both the mathematical content and the intended level of cognitive demand present in student tasks. Over 950 tasks from Pearson's Algebra 2: Common Core (2012) and Key Curriculum Press's Interactive Mathematics Program: Year 3 (2nd ed.) (2011) were coded using frameworks based on these two constructs. Analysis of the coding results revealed important differences between the two texts in the opportunities to learn provided and potential shortcomings of both texts for students if enacted as written.

Kelly Curtis

Ph.D. in Education student (Mathematics Education)

How Two Mathematics Textbooks Position Students Towards Mathematics

Language (Herbel-Eisenmann, 2007) and cognitive demand (Stein & Lane, 1996) have a powerful impact on students, informing them of who they are and what their relationship is with the mathematics they are working on. I have merged these frameworks in order to analyze selected sections of Core Plus 1 and the Mathematics Visions Project (MVP). The results seem to show that even project-based curriculums do not position students in similar ways. Core Plus tended to use more inclusive language more often than the MVP problems. Also, Core Plus maintain the cognitive demand across in-class tasks and homework problem while MVP tended to lower the cognitive demand from in-class tasks to homework. These are important differences that have implications for implementation.

Kwaku Edusei

Ph.D. in Education student (Mathematics Education)

Game-Based Learning: What Students Think is Engaging and Educational

The technological nature of our society has produced an emerging, innovative teaching approach known as game-based learning. This study examined the features of game design that students identify as engaging, as well as features they find helpful to their learning. Middle school students (N=8) played Super Mario Odyssey & DragonBox Elements for 45 minutes each, and were interviewed one-on-one after playing each game. An analysis of the data revealed that students noticed and enjoyed challenge, fantasy, graphics and bonus features of the games more than any other feature meant to be engaging. Students found feedback, explicit connections and challenge helpful to learning of mathematics. Analyses also revealed that students learn informally from game-play, even from non-educational games.

Dilek Eruslu
Ph.D. in Economic Education student
Investigation of Parent Political Efficacy: Evidence from Wilmington Area
This study investigates the relationship between parent political efficacy, trust in school, parent-community ties and parent involvement. First, both EFA and CFA were conducted to identify integral factors and clarify the interrelationships among set of items. After getting factor scores, a linear regression model was used to identify the relationships among these factors as well as parent demographic characteristics. Results reveal that parent trust in school, parent external political efficacy, parent self-efficacy, as well as demographic of parents (i.e., education level and ethnicity) are significant predictors for internal political efficacy of parents. In addition, we also found there is a strong relationship between parent self-efficacy and parent involvement. Outcomes of this study have implications for helping schools and districts do a better job of connecting with parents about issues that matter to them.

Sara Gartland
PhD in Education student (Sociocultural and Community-based Approaches Specialization)
"Warm-Strict": Expectation, Reality and a Method for Coping in a High-Needs Elementary School
The purpose of this ethnographic case study was to gain a better understanding of daily life at Terrell Elementary School. Field notes from 42 hours of observations, transcripts from two 30-minute semi-structured interviews and multiple informal interviews, and other artifacts from the site were analyzed through multiple rounds of coding. Analysis revealed that a variety of transitions influenced the types of interactions that took place and the ways that the physical space was used at the school. Conflicting goals for students, which manifested in the interactions and use of space, generated the tension that colored the Terrell experience.

Kelly-Ann Gesuelli
Ph.D. in Education student (School Psychology)
Changes in Students' Fraction Arithmetic Errors from Fourth through Sixth Grades in Response to Classroom Fraction Instruction
Fraction instruction takes place mainly from fourth to sixth grades. Many students make little progress in fraction knowledge during this time and display fraction arithmetic difficulties (Resnick et al, 2017). We monitored the growth of students' fraction arithmetic skills on common denominator word problems during these grades and analyzed errors.

Latent class growth analyses revealed 4 growth classes: high, low, moderate, and consistently accurate. In fourth and fifth grade, high growth students used the commonly applied "add/subtract across denominators" strategy on 50-75% of their errors but made few errors in sixth grade. Low growth students did not consistently apply this strategy in any grade. Instead, most of their errors reflected a mix of conceptually inappropriate procedures.

Caroline Morano

Ph.D. in Education student (Learning Sciences)

Parents' and Children's Questions: Asking About Geometric Shapes

Although children may be exposed to shapes from an early age, they are unlikely to see varied exemplars in educational materials and continue to struggle with shape knowledge in elementary school. Children can learn about shapes through asking questions, leading to deeper learning. Parent-child dyads were recorded during 5 minutes of naturalistic play with shapes. Dyads asked fewer questions when playing with a tablet than with concrete shapes. Children asked marginally more unprompted questions with atypical shapes than with standard shapes. Parents similarly asked more child-led questions with concrete shapes compared to the tablet shapes. Playing with varied physical shapes, rather than standard or electronic shapes, may help promote question-asking about shapes.

Teresa Rush

Ed.D. in Educational Leadership student

Response to Intervention for Adolescents At-Risk for Reading Failure: Implications for Effective Tier 2 Reading Interventions

There is little disagreement regarding the need for adolescents with reading difficulties to receive targeted intervention. According to data from the U.S. Department of Education's 2017 National Assessment of Educational Progress (NAEP), only 35% of eighth graders performed at or above the NAEP proficiency level (The Nation's Report Card, 2017). Adolescents with reading difficulties require tiered placements that offer evidence-based interventions. This can be difficult to provide considering teachers and adolescents face complex school structures that make access to remedial instruction difficult. This poster session addresses the contextual and instructional features of Tier 2 reading interventions that contribute to positive reading outcomes of adolescents at-risk for reading failure.

Ye Shen

Ph.D. in Education student (Literacy Development and Learning Problems)

Cognate Awareness as a Longitudinal Predictor of Second Language Reading Comprehension: The Facilitating Effects of Word Identification and Vocabulary

The present study investigated the developmental changes of different types of cognate words and the contribution of cognate awareness to reading comprehension among 76 children who were enrolled in a French immersion program. Participants were assessed on nonverbal reasoning, word identification, receptive vocabulary, cognate awareness and French reading comprehension from Grades 1 to 3. Results showed significant improvement on cognate awareness from G1 to G2, and similar spelling cognates showed the greatest amount of improvement between G1 and G2. Moreover, French Word Identification mediates the relationship between cognate awareness and Grade 3 French reading comprehension in early stages of development, and French Vocabulary mediates the relationship in later grades.

Scott Sheridan

Ph.D. in Education student (Learning Sciences)

The Culture of Technology Use: An Ethnographic Exploration of One Teacher's Classroom

Given access to technology, training and continued support in integrating technology into lessons, it would be reasonable to believe that teachers can and should be able to alter their classroom practice. However, even in a school whose mission is one of progressive, technology laden instruction, barriers may exist that stymie even the best of efforts for change. Through classroom observations, the gathering of artifacts and conversations with a middle school science teacher, this ethnographic case study demonstrates how seemingly innocuous and often well-intentioned policies and practices within a school can promote a culture of fear and a need for control, which are incompatible with the school's stated vision of providing learners a student-centered, 21st century learning environment.

Meaghan Vitale

Ph.D. in Economic Education student

Confronting Instructional Change: An Examination of Teacher Self- and Collective Efficacy Beliefs

The purpose of this in-progress study is to better understand the factors underlying teacher efficacy beliefs through the development of a new survey instrument. We are particularly interested in the relationships between teacher efficacy beliefs, professional development and changes in curriculum. This presentation will focus on the theoretical framework, development of the survey instrument and the next steps in the research process. Findings will inform

teacher professional development in the context of implementing new curriculum.

Nefetaria Yates

Ph.D. in Education student (Sociocultural and Community-based Approaches to Education)

Modeling College: Perspectives on Being an Undergraduate College Readiness Coach

For many students living in minoritized communities, access to postsecondary resources is not readily available (Cipollone and Stich, 2017). In these contexts, out-of-school programs often work to bridge the opportunity gap between college aspiration and attendance. "Let's Get Ready" (LGR) centers on this concept by partnering with community-based organizations to facilitate college readiness activities, where undergraduates serve as "role models and mentors" for high school participants (LGR, 2018). Researchers conducted a 12-week qualitative study of LGR pilot programming in Chester, PA during the fall of 2018. Findings highlight the nuanced experiences of undergraduate coaches serving in this leadership capacity. In addition, recommendations for program sustainability are outlined.

Fan Zhang

Ph.D. in Education student (Literacy Development and Learning Problems)

Assessing and Comparing the Writing Skills of English Language Learners and Monolinguals in First Grade

The study examined how component reading and writing skills (vocabulary and transcription) of ELLs predicted 1st-grade English composition (i.e., spelling, length/quality) and writing fluency. Thirty-four ELLs and 35 monolinguals were chosen as participants. Results indicated that the only significant difference between ELLs and the matched monolingual group was on alphabet copying. Through regression analysis, results revealed that spelling was a significant predictor of contextualized spelling for both groups. For writing fluency, spelling played a significant role for monolinguals while alphabet copy and spelling were significant for ELLs. For writing quality, spelling was the strongest predictor for monolinguals and expressive vocabulary was significant for ELLs.

Haobai Zhang

Ph.D. in Education student (Learning Sciences)

Predictors of Fraction Word Problem Solving

Although solving word problems is specified as a significant

competency by U.S. benchmarks, few studies have focused on the children's fraction word problem-solving development. The present study identified predictors of fraction word problem-solving performance at the end of sixth grade (N = 292) using multivariate regressions. Multivariable quantile regression was also applied to examine the conditional differences at quantiles across the distribution which detected predictors influence children at certain quantiles, especially among lower-achieving children. A constellation of cognitive variables, measured in third grade, including reasoning ability, number line estimation ability along with demographic variables significantly predicted children's fraction word problem scores.

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