Introducing the first issue of the EdPsych|QPM Bulletin!

Hello wonderful people,

In this inaugural issue, you will find charming tidbits about our graduate students and program faculty in both Educational Psychology (Ed Psych) and Quantitative and Psychometric Methods (QPM). This bulletin is intended to highlight some of our student and faculty success stories over the past year along with conference and publication activities. Congratulations to individuals in the Educational Psych program who recently completed their doctoral degrees, Dr. Danner for his many years as an outstanding teacher-researcher (enjoy retirement!), Calah Ford and Abbey Love for being awarded funding for their research efforts, Dr. Ellen Usher, for taking over as our new Educational Psychology Program Chair, and to our very own, Dr. Kenneth Tyler, for being appointed our new leader (chair) for the Educational, School, and Counseling Psychology department. We hope that you find our scholarly activity and program achievements inspiring and interesting. Enjoy the photos of our current and incoming graduate students. Since this is our first issue, we look forward to highlighting more work about our talented students and faculty as you pursue research and teaching activities here at the University of Kentucky. Finally, welcome to Dr. Narmada Paul, who will be joining us as a postdoctoral scholar!

Sincerely yours,

Dr. Michael Toland
Program Chair, Educational Psychology
Coordinator, Quantitative and Psychometric Methods
Director of Graduate Studies

In this issue

Letter from the program chair       page 1       Funding Highlights       page 5
Student Spotlight                  page 2       AERA/NCME Conference      page 6
Announcements & Events            page 3       Presentations & Publications  page 9
**STUDENT SPOTLIGHT: Calah Ford Receives NSF Graduate Fellowship**

By Amanda Nelson (edited from post on http://p20motivationlab.org by Tiffany Thomas)

**Calah Ford,** a second-year doctoral student is one of three UK students to receive a 2018 National Science Foundation Graduate Research Fellowship. Calah is among 2,000 students selected for the fellowship from more than 12,000 applicants across the nation.

Calah holds a bachelor’s of science in elementary education from the University of Louisville and a master’s of business administration from UK. She has experience as both a classroom teacher and as a marketer and is currently working as a UK teaching assistant for preservice elementary teachers completing their practicum. She is an active leader in the P20 Motivation and Learning Lab, where she mentors undergraduate students interested in pursuing research related to the psychology of teaching and learning.

Calah’s research to date has focused on math and science self-efficacy development in Appalachian students, first-year college students’ sense of belonging, and the influence of living learning programs on first-generation college students’ matriculation and success. “Through teaching in both rural and urban settings, as well as in low-income schools, I developed an interest in studying the academic motivation and outcomes of underserved student populations,” Calah said.

Her future research will focus on the role of social models in students’ decisions to pursue a degree and career in science, technology, engineering, and math (STEM). The project will focus on underrepresented groups (e.g., women, racial/ethnic minority students) and aims to ultimately develop an intervention to increase participation in STEM degrees and careers from students in these groups.

*Apply for the NSF Grant! Learn more at: https://www.nsfgrfp.org/*
ANNOUNCEMENTS & EVENTS

Welcome to our new graduate students!

Xiao Yin Chen
Kentucky, USA
I am very excited to be involved with research at UK!

Jaeyun Han
South Korea
I am interested in sources and impacts of students’ beliefs in their capabilities. I look forward to attending the University of Kentucky this coming Fall 2018.

Cara Worick
Kentucky, USA
We have an exceptional community in this department! After completing my master’s in educational psychology, I am thrilled for the opportunity to continue my research in the doctoral program investigating the intersection between self-beliefs, motivation, and self-regulation and remaining a member of the EDP family!

Chunling Niu
Anhui Province, China
I am so looking forward to attending UK because I fully expect what I learn here from the QPM program will be perfectly aligned with my future career goals.

Jing Zhang
Nei Mongol, China
It is fascinating to study in these brilliant libraries at the University of Kentucky!

Welcome to our other EDP/QPM students (not pictured):

Marcus Epps
Mingjian Pan
Lijun Shen

Save the Date! Ally Workshop for New Students
September 7 (9-3 pm), 2018

Social Justice Scholarship Series (SJSS) returns Spring 2019!
Topics will include:
Dis/ability
US Citizenship & Immigration Status/International Identities
Religious Diversity
THANK YOU for 40 years of service, Dr. Danner!

Fred Danner served for 40 years as a professor of Educational Psychology in our department, and I am so grateful that I was able to serve alongside him for the last 11. From his incessant curiosity to his extraordinary wit, Fred made my job fun and intellectually stimulating. I learned many lessons from observing Fred as a mentor and a leader, among which was his embodiment of William James’ dictum that “the art of being wise is the art of knowing what to overlook” and Dr. Seuss’s that “From there to here, from here to there, funny things are everywhere!” More than a generation of scholars have been influenced by Dr. Danner’s humanness and intellect. Congratulation and thank you, Fred!

-Dr. Ellen Usher

My first course in the program was Dr. Danner’s human development seminar, and I couldn’t have asked for a better way to begin my journey through graduate school. During this time, I was feeling uncertain about myself and my place in this program, and one day after class he pulled me aside and told me that I was a good writer, had strong ideas, and would be just fine in the program. That resonated deeply with me and came at the exact right moment. I don’t think the timing of this exchange was coincidental. Dr. Danner has the insight and experience to know when to swoop in and tell his students what they need to hear when they need to hear it. This is his superpower. His authenticity, wild heart, and wisdom will be deeply missed in our department, but I’m excited about all of the adventures that are to come for him!

-Cara Worick (MS, 2018)

Fred Danner inspired me as a student in his class and throughout my dissertation process. He was always willing to brainstorm research ideas with me and conveyed complete confidence in my ability to do any of them. Fred held my feet to the fire (as he reminded me) to stay with a research question when it was time for me to write my dissertation. Fred modeled how to have a collaborative and curious professional attitude in every interaction no matter how challenging. Fred Danner is the professor I still think about long after graduation.

-Kathryn Cunningham (PhD, 2014)

Congratulations on your retirement! I am so grateful that I was able to be a part of your last class. We will miss you!

-John Witry (MS, 2019)
The Applied Psychometric Strategies (APS) Lab provided a series of open presentations on a range of quantitative and psychometric topics as part of their Applied Quantitative and Psychometric Series (AQPS). This year’s sessions included:

**Regression Discontinuity** by Dr. Joseph Waddington  
**Latent Class Analysis** by Caihong Li  
**Power Analysis** by Hao Zhou and David Dueber  
**How to Choose an Instrument for My Research Study** by Abbey Love and Danielle Rosenkrantz  
**Managing Measurement Error in Regression Analysis** by Danielle Rosenkrantz and David Dueber

Join Dr. Toland and the APS Lab for the 2018-2019 series to discuss topics such as path analysis, item response theory, multilevel latent class analysis and many more. The APS Lab hopes that these talks will be attended by undergraduate and graduate students and faculty wanting to expand their skills in a wide variety of quantitative and psychometric areas. The goal is to engage in open dialogue on a variety of methods and that this series can be used as a means to share ideas on research. Visit [https://education.uky.edu/edp/apslab/](https://education.uky.edu/edp/apslab/) for more information on upcoming events and materials/recordings from previous talks.

**FUNDING HIGHLIGHT**

Congratulations to Abbey Love who has received a $5,000 Autism Speaks Local Impact Grant for her community-based work entitled, "Promoting Positive Interactions among First Responders and Individuals with Autism Spectrum Disorder." Abbey created Police Autism Community Training (PACT) to provide trainings to local and regional law enforcement agencies to improve police officers’ knowledge about community members with autism spectrum disorder (ASD). Abbey was also a recipient of The Arvle and Ellen Turner Thacker Research Fund, which was established to provide mini-grants in support of the research efforts of doctoral graduate students in the College of Education. Grants of up to $1,000 are available to College of Education doctoral candidates who have passed their qualifying examination and are working on their dissertation. In addition, Abbey was also awarded a UK LGBTQ Endowment Scholarship. This fund was created by Drs. Keisa and Amanda Fallin-Bennett—two generous alums devoted to empowering student success and supported by the annual UK Feast on Equality fundraiser. Way to go, Abbey!
2018 AERA/NCME CONFERENCE: Metacognition Study Receives Research Award

Research by John Eric Lingat, Trisha Turner, Cara Worick, and Dr. Ellen Usher was selected for the American Educational Research Association’s Studying and Self-Regulated Learning Special Interest Group Graduate Student Research Award. Read about their study and other work presented in New York City!

Preliminary evaluation of a living-learning program (LLP) for first-generation college students: A quasi-experimental approach

Living-Learning Programs (LLPs) have been shown to improve the academic success of undergraduate students. The current study is a preliminary evaluation of an LLP for first-generation college students. First-year students in this LLP (n = 41) were compared to a group of peers who lived in other LLPs (n = 41) and who did not live in any LLP (n = 41). Students in the first-generation LLP had significantly higher GPAs than both comparison groups and higher retention rates than students who did not participate in an LLP. (Ford, Nelson, Chen, Usher, & Brown, 2018)

Assessing $M_2$ and RMSEA$_2$ of multidimensional Item Response Theory models

This simulation study aimed to investigate the performance of $M_2$ and RMSEA$_2$ for polytomous data under multidimensional models. $M_2$ was found to have normal Type I error rates but unstable power. We hope to enlighten researchers on the usage of $M_2$ and RMSEA$_2$ when data is multidimensional polytomous. (Li, C.R., Zhou, H., & Toland, 2018)

Clarifying the purpose and utility of pre-assessments

This conceptual paper reviews the history of research on pre-assessments in education and presents a model describing their three major purposes. Research on the utility of each type is described along with the effectiveness of pre-assessment data in planning high quality instruction and improving student learning. (Guskey, 2018)

Patterns in Metacognitive Awareness: An Investigation of Undergraduate Biology Students

Objectives. We examined undergraduate biology students’ metacognitive awareness across one semester using two measures: calibration and metacognitive self-regulation. The relationship between these variables and student achievement was explored.

Theoretical Framework. Metacognition is central to effective learning (Schunk & Usher, 2011; Zimmerman, 2000). The discrepancy between students’ estimated and actual performance provides one measure of metacognitive awareness known as calibration (Lin & Zabrucky, 1998; Stone, 2000). Calibration is essential to the metacognitive process and influences strategy use, task completion, and academic success (Bembenutty, 2009). Few studies have measured calibration in introductory undergraduate biology courses (Jensen & Moore, 2008; VanderStoep, Pintrich, & Fagerlin, 1996).
Methods. Participants were 428 undergraduate students enrolled in introductory biology. Calibration was measured as the discrepancy between students’ estimated and actual grades on four exams. The Metacognitive Self-Regulation subscale of the Motivated Strategies for Learning Questionnaire (MSLQ; Pintrich, Smith, Garcia, & McKeachie, 1991) was used to assess self-reported metacognitive self-regulation (α = .77). Instructors provided students’ final course grades.

Repeated measures analysis of variance was used to examine whether students’ mean calibration levels changed significantly over time (Boekaerts & Rozendaal, 2010). Latent class growth analysis was used to examine patterns between estimated and actual grade (raw discrepancy) across the semester (Jensen & Moore, 2008). Zero-order correlations were calculated between miscalibration, metacognitive self-regulation, and course grades.

Results. Students’ calibration generally improved across the semester (see Table 1). However, three distinct calibration patterns emerged: overestimators who improved (early miscalibration that was later regulated), consistent overestimators who did not improve (persistent miscalibration), and consistent calibrators whose estimates were not highly discrepant (relatively good calibration). The association between miscalibration (i.e., the absolute value difference between students’ expected exam scores from their corresponding actual exam score) and metacognitive self-regulation was not statistically significant, $r(184) = .038$, $p = .612$. Mean miscalibration scores were significantly related to final grades, $r(185) = -.720$, $p < .01$, but metacognitive self-regulation scores were not, $r(316) = -.008$, $p = .891$.

Scholarly Significance. Findings support the idea that calibration is essential to metacognitive awareness and academic success (Bembenutty, 2009). Students who were better calibrated performed significantly better in the course overall. This approach to examining metacognitive awareness may offer an improvement over self-report measures of metacognition. For a full reference list or questions about this study, email johneric.lingat@uky.edu.
A sociocultural perspective on self-efficacy development
The purpose of this paper is to examine theorized and observed cultural variations in the development of academic self-efficacy as well as the processes or mechanisms responsible for this variation. We examine cultural variations in the formation of self-efficacy through a critical review of research conducted in diverse contexts (e.g., nationality, gender, race/ethnicity, socioeconomic status, ability level). This work shows that so-called internal sources of self-efficacy rarely work alone. Findings from the studies reviewed indicate that students’ exposure to various types of efficacy-relevant information differs as a function of personal and contextual factors, as does the relative influence of these informational sources on students’ academic self-efficacy. We close by enumerating the processes through which learners’ sociocultural context can affect self-efficacy development. (Usher & Weidner, 2018).

Professional noticing into practice: An examination of in-service teachers’ conceptions and enactment
Professional noticing is a framework for a teaching practice consisting of three components: attending, interpreting, and deciding (Jacobs, Lamb, & Philipp, 2010). The current study investigates the conceptions and purported enactment of professional noticing of 24 elementary and middle grades teachers participating in professional learning programs that incorporated professional noticing. These teachers demonstrated wide-ranging interpretations of professional noticing. (Thomas, Dueber, Fisher, Jong, & Schack, 2018)

Revisiting the differences in Canadian and U.S. medical student preparation for family medicine
Previous research has found differences in preparation for entry into Family Medicine training between graduates of US medical schools and Canadian medical schools. We found that Canadian medical school graduates performed as well or better than US medical school graduates at entry into residency, but performance was reversed for the second year of training. Our results suggest an added value of ACGME residency training independent of location of undergraduate medical training. (Wu, Wu, Peabody, & O’Neill, 2018)

Developing and validating an instrument measuring school leadership
In this study, we developed and validated an instrument that researchers can use to measure the collective effort of principals and teachers who excise their own unique leadership to generate (integrated) school leadership. (Shen, Ma, Gao, Palmer, Poppink, Burt,…Wegenke, 2018)

All bolded names throughout the bulletin indicate students and faculty members who are members of the Educational Psychology or Quantitative and Psychometric Methods programs.

Get to know
DR. MICHAEL TOLAND
1. I am the youngest of 6 siblings.
2. I discovered I had a long lost brother in 2006.
3. I am an avid runner and tennis player.

New grants awarded in 2017-2018 AY:
2017-2018 PUBLICATIONS


Li, Z., Gooden, C., & Toland, M. D. (In press). Reliability and validity evidence for the Hawaii Early Learning Profile Birth - 3 Years. *Journal of Early Intervention*


2018 PRESENTATIONS


Our Mission

The College of Education endeavors to expand the knowledge of teaching and learning processes across a broad educational spectrum. The College fosters a culture of reflective practice and inquiry within a diverse community of students, faculty and staff.

As part of a research-extensive university, the College advances knowledge through research. The Educational Psychology program of the department of Educational, School, and Counseling Psychology (EDP) at the University of Kentucky (UK) focuses on preparing Educational Psychologists who have strong theoretical, conceptual, and practical ties to educational psychology, and who also possess exceptional skills in the area of measurement, statistics, assessment, and research methodology. The primary objective of the Quantitative and Psychometric Methods (QPM) program is to promote the development of advanced quantitative and psychometric knowledge and skills.

A commitment to social justice in EdPsych and QPM requires sensitivity to and respect for diversity of thought and action throughout the content of educational psychology coursework and research and among members of the local and global community.

For even more information on our program please visit: https://education.uky.edu/edp/educational-psychology-overview/

Comments, questions, and feedback on the bulletin?
Email toland.md@uky.edu

P.S. A special BIG thank you to John Eric, Abbey, and Rebecca for putting this first bulletin together!