EDUCATIONAL PSYCHOLOGY

Washington State University, College of Education

A Note From The Program Coordinator Dr. Olusola Adesope



Hi there:

As I write this, the whole world is under the threat of corona virus and the United States has suffered devastating effects with the loss of thousands of people and a drastic change to the way we live, work and play. Our nation is not only plagued by the global pandemic but

also civil unrest as a result of perennial lack of social justice. In the midst of what seems to be a dark moment in the history of our country, I see such a great hope in our future due to many reasons. One of such has to do with the educational psychology program housed in the College of Education at Washington State University. I came here as a junior faculty a little over a decade and have risen through the ranks regardless of my color, race, faith and socio-economic status. The educational psychology program is one of the most diverse graduate program at Washington State University with faculty and students from North America, Europe, Africa and Asia.

Every week, I witness educational psychology faculty and students rise above all sorts of divides to engage in stimulating, intellectual discussions and knowledge sharing in our different classrooms. I daily see and hear of ground-breaking research and discovery by faculty and graduate students from the program. I watch in awe as numerous students and faculty from our educational psychology program present scientific papers at research conferences around the country and the world. I am inspired and invigorated when I see the great work that our alumni are doing as faculty at top research institutions and as researchers in large corporations and government offices in the country.

We daily use scientific and educational research tools to foster productive dialogues and tackle grand challenges in our nation. Space constraints will not allow me to explicate all the fun work that we do in the educational psychology program. Our faculty and students are taking on big national issues such as lack of fairness in testing, minimizing attrition in STEM through research on novel strategies for STEM teaching and learning, closing achievement gaps especially with underrepresented minorities, developing critical thinking skills for life-long learning, using large scale data to make viable predictions for lifelong learning and several other issues of national attention.

Inside This Issue	
A Note from the Program Coordinator	1
Dr. Kira Carbonneau	2
Dr. Higheagle Strong & Dr. Danielson	3
INTO Program	4
Master's Projects from the INTO Program	5
Three Minute Thesis	6
Research Centers & Labs	7-8
Student Research	9-11

This newsletter only highlights a few of our faculty and students' work. In the newsletter, you will:

- Get to know Dr. Kira Carbonneau who was recently promoted to Associate Professor of Educational Psychology with tenure.
- Learn about different projects Drs. Zoe Higheagle Strong and Robert Danielson are working on.
- Read about our INTO Program and how we are fostering diversity and meeting the educational needs of our international students.
- Learn about the different projects that our INTO graduates completed for their masters degrees.
- Get to know Samuel Aina, a PhD student in educational psychology who won the College of Education's 3 Minute Thesis Award.
- Learn a little about Samuel Oni, whose research was among the American Psychological Association's Division 15 Graduate Student Poster Award finalist.
- Read a list of 2019/2020 publications and presentations authored by our students.
- Read highlights about our Learning and Performance Research Center and the different labs in the Center.

I hope the contents of this newsletter will provide you a taste of what to expect if you decide to join our program either as a student or faculty. Moreover, we will appreciate your support of our program through donations.

I want to use this opportunity to thank our world-class faculty and students for all the great work they do to make our program one of the best you can find anywhere in the world. I wish you a wonderful start to the 2020/2021 academic year and a great success throughout the year.

Sincerely,

Alospe

Olusola O. Adesope Professor and Assistant Chair Educational Psychology Program

Dr. Kira Carbonneau



It is with great pleasure and excitement that I am writing to the WSU Educational Psychology community to share my successful promotion to an Associate Professor of Educational Psychology. This

is such an honor for me as it recognizes my efforts to be an active member in the academic community. However, as I write this portion of the newsletter we are in a particularly inauspicious time, so it would feel amiss if I did not first recognize our current situation.

During these times, we as educators are embracing new approaches to our work. As family members and friends, we are adjusting our social interactions and responsibilities, including new roles as caregivers, stand-in K-12 educators for our children, support agents for loved ones, and a myriad of other new roles. As we reshape the landscape of our environments, I want to thank each and every one of you for the positive attitudes, the collective congratulations and the overwhelming support that was offered on my way to tenure, but most importantly for all the support each of you give during this time.

Your support has propelled me through my professional journey, during this time I have established myself as an instructional strategies' researcher and educator. My research, while diverse, exemplifies the fact that learning occurs in the classroom, during surgery, from assessments, and even at the dining room table (not subjected to experimental testing Yet!). Over the past five years, I have developed knowledge of our educational system infrastructure across the K-12 and higher education continuum, gaining a deep respect for practitioners, administrators, and researchers. I have expanded my methodological knowledge to become savvy in qualitative, mixed research methodologies as well as dissemination practices.

Through my research, teaching and service experiences, I gained the insight, that in order to change education practices there is a need to understand learning at all levels. To this end, I work collaboratively across school districts and university campuses to grow a more diverse understanding of how to promote learning through our teaching practices. My work would not be feasible without the support of this community, whether you are a colleague, a mentor, a student, or a stranger who offers a friendly smile, I thank you for your kindness and share this honor with all of you.



APA Division 15 Graduate Student Poster Award Finalist



One of our Ph.D. students, **Samuel Oni**, had his paper selected as one of Division 15 graduate student poster award finalists at the 2020 American Psychological Association's conference. Congrats, Samuel!

Rethinking the Application of Culturally Relevant Education: A Systematic Review of Native American STEM Learners Oni, O. S., Adesope, O. O., Strong, Z., & Sunday, O. J.



Abstract

Native American learners have been identified to be consistently the most underrepresented minority group in STEM. Therefore, this systematic review reviewed evidences demonstrated in literatures on the relationship between culturally relevant science education and Native American (indigenous/aboriginal) learners' motivation into STEM fields. More specifically, this study provides a descriptive review of relevant studies in answering the following research questions: (1) what types of culturally relevant science education (CRSE) motivate and engage Native American learners? (2) what are the shared experiences of Native American STEM professionals and students? Overall, results revealed the majority of the reviewed studies reported that CRSE is beneficial and increase interest among Native/ indigenous learners. The study provides a robust landscape of findings and key gaps in the literature that future studies may seek to fill.

Meet Dr. Zoe Higheagle Strong



Dr. Zoe Higheagle Strong (Nez Perce Tribe) is an assistant professor in Educational Psychology and Executive Director of Tribal Relations/Special Assistant to the Provost and Executive Vice President. She

also leads the Center for Native American Research and Collaboration. She is committed to research, administrative duties, service and teaching that promotes equitable policies and practices for marginalized students. As a land grant institution, WSU has special obligations to Tribes and their peoples to acknowledge their sovereign status and meaningfully consult before projects, research and programs that include tribal peoples or on tribal lands are initiated. Dr. Higheagle Strong's work is motivated by the educational needs brought forth from Tribes. One serious concern of Northwest tribes is the misidentification of Native American students in educational data reporting and analysis. According to federal reporting guidelines, a high percentage of students are counted as "multi-race" or "Hispanic," and not as Native American. Some of these students are enrolled tribal members. Thus, the misidentification of Native American student data is a barrier to students being identified for scholarships/funding, accurate analysis/reporting and evidence-based decisions.

In response, Dr. Higheagle Strong collaborated with tribal partners, WSU researchers, WSU campuses (Tri-Cities, Vancouver, Everett and Global) and Extension. In the Educational Psychology program, key collaborators were Bruce Austin, research associate and Emma McMain, graduate research assistant. In August, they were awarded a USDA federal grant - New Beginnings for Tribal Students. The overall project goal is to incorporate culturally sustaining/ revitalizing (CSR) and Tribal Nation Building Leadership (TNBL) approaches in researching and addressing the barriers to Native American undergraduate student recruitment, retention, and graduation at Washington State University across five campuses. First, the team will analyze WSU institutional data on Native American student recruitment, retention, and graduation using accurate racial/ ethnicity counts over the past five years and identify best dual reporting practices. Results found in combination with Native American student focus group interviews findings will be embedded in a CSR training toolkit and will be widely disseminated throughout WSU and beyond. The executive leadership of the five campuses have committed partial tuition waivers and training for staff members to increase the recruitment and retention of Native American students. Lastly, a TNBL online course and internships will be piloted across campuses to mentor and support Native American students at the campuses with low Native American enrollment numbers and CSR services.



Dr. Robert Danielson



Dr. Robert Danielson is an Assistant Professor of Educational Psychology at Washington State University. In addition to spending a lot of time hiking around Spokane, Robert has been working on three major

projects. The first project, a meta-analysis of refutation texts with Olusola Adesope (funded by NSF), has been focusing mainly on scanning and coding hundreds of studies (and we sent our first conference proposal out to AERA!). The second project, a STEAM learning intervention with Molly Kelton focusing on infectious disease (funded by NIH), has begun to pivot and include games and other activities for parents and children to engage with at home. Finally, the third project (funded by NSF) has been examining the impact of scholarships (and now also the shift to online instruction because of COVID) on students at Spokane Community College. Some graduate students are working with us on these projects.

Getting INTO Detail on Ed Psych

In the Fall of 2017, the Educational Psychology program welcomed its first cohort of students through Washington State University's partnership with INTO, a company that seeks to match international students to higher education opportunities in the United States and United Kingdom. Since then, 13 students from four different countries have successfully earned Master's degrees. The 2019-2020 schoolyear welcomed another seven students.

Students who arrive via the INTO partnership enroll in foundational Educational Psychology courses, while also completing intensive courses in academic English. Upon successful completion of this "pathway", the students are admitted as degree-seeking members of the community. They continue their coursework, and complete a systematic review of research literature on a topic of their choice. Through this process, the students become skilled consumers of research, and position themselves to be competitive for admission to a Ph.D. program. Indeed, five students have begun or been admitted to doctoral programs in Educational Psychology, Special Education, or Curriculum and Instruction, both at Washington State University and at other respected institutions, such as University of Alberta and University of Albany - State University of New York. Other graduates have secured jobs with where they apply their learning in the areas of assessment, statistics, and working with stakeholders.

Educational Psychology's involvement with the INTO partnership has quickly returned many benefits. The increased international diversity of perspectives has enriched class discussions in courses such as Educational Measurement. Faculty have benefitted from their work with students as well. Kira Carbonneau reported increased interest in the topic areas students chose for their Master's projects. From the student perspective, program alumna, Dongni Guo, said, "two years of graduate education at WSU gave me a new identity of being a researcher."

The benefits extend beyond the classrooms and offices of Cleveland Hall, too. Last November, INTO Program Coordinator for Educational Psychology, Chad Gotch, and his family shared a traditional Thanksgiving dinner with a cohort of students. Student, Jike Feng, returned the favor by cooking an array of Chinese dishes. Such moments provided opportunities for conversation, laughter, learning, and bonding. Two students in the program, Emiri Handa, from Japan,

and Mehriban Ceylan, from Turkey, traveled together to the American Psychological Association Convention in Chicago. Emiri says, "it was great to have many friends from all over the world to learn something new through sharing our different cultures."

See page 4 for information about the projects our INTO students completed.



Members of the INTO program during the fall get together, November 2019.



Giving Back

Alumni and Friends:

Consider giving back to support the Educational Psychology program. Donations can support a variety of program pillars from research hardware and software to student travel and research positions.

For information on how you can help us grow please contact Olusola Adesope (olusola.adesope@wsu.edu).

Master's Projects from INTO Program Graduates

Mehriban Ceylan, Investigating Item Parameter Drift across Computer- and Paper-Based Assessment Modes in PISA 2015 Mathematics

Xingyao Chen, School Bullying in the US: A Bibliography of Bullying, Victimization, Anti-Bullying Program, and Issues

Zilin Chen, Measurement Issues in Career Planning and Promoting College Attendance

Cihan Demir, Application of Computerized Adaptive Testing to Washington Assessment of the Risks and Needs of Students (WARNS)

Jike Feng, The Relationship between Family Environment and Learning Motivation among Adolescents

Dongni Guo, The Effect of Instructional Physical Activity Interventions on Children's Reading Comprehension

Emiri Handa, Effectiveness of Therapeutic Approaches on Self-Beliefs of Middle School Students

Yimeng Liu, The Impact of Personality Traits on Academic Achievement in Different Cultural Background and Ages

Yuyang Ma, Teacher-Student Relationship Quality and Learning Engagement in Elementary School

Gang Qiao, Reasons for Differential Motivation and Success across Subject Areas

Onur Ramazan, Investigation of Significant Test Anxiety Predictors in Large-Scale Assessment Data for the United States: A Hierarchical Multiple Regression

Tarid Wongvorachan, Cheating Behavior in High-Stakes Testing

Ruochen Zhang, Review of Studies in Unwillingness to Communicate of Chinese College Students in the United States

Alumni News



Congratulations to program alumna Margarita Vidrio Magana on successfully defending her doctoral dissertation and completing her Ph.D. in Mathematics and Science Education. Her dissertation was

titled "Mathematical Self-Efficacy in High School Tracked Classrooms" and her Chair was Dr. Amy Roth-McDuffie. Margarita earned her M.Ed. In Educational Psychology at WSU in 2013.







Program Statement

We apply advanced methodologies to answer applied and basic research questions in the context of complex educational environments. We develop leaders who possess the knowledge, skills, and abilities to transform educational environments.

Three Minute Thesis



Please meet the College of Education's Three Minute Thesis (3MT) Winner, Samuel Aina. He is a Ph.D. student in Educational Psychology and represented our program very well at

the event. Samuel went on to put on a good performance at the all-university 3MT event. Well done, Samuel! Continue reading to learn more about Samuel and his research.

I was born and brought up in Nigeria. I came to the United States in 2017 to earn a Ph.D. in educational psychology. My wife, Mary, and I have 3 kids - Judah, Joanna, and Joyce. I enjoy spending time with my family. My goal in life is to be a researcher, professor, and social innovator/entrepreneur.

Though I was admitted to a Ph.D. program, I added a master's degree along the way. I wrote a thesis and graduated with my master's degree in Spring 2019. My thesis was focused on the use of videocases in teacher education. I conducted a meta-analysis on the use of videocases in teacher education, examining the effect of videocase analysis, the process of having teachers record, watch and analyze their own teaching, on teachers' professional learning and practice.

My background is in teacher education and instructional technology, which has informed my interest in any research that bridges the two worlds. Videocases present an opportunity to apply multimedia learning to teacher education, particularly in the areas of teacher professional learning and collaboration. I developed interest in videocases after reading Miriam Sherin, et al.'s chapter in The Cambridge Handbook of Multimedia Learning. The need for a meta-analysis on videocases caught my attention, and I decided to fill that gap. Specifically, I was interested in the overall effectiveness of videocases, the conditions, and contexts in which they work.

As shown in several empirical studies, I found videocases to be a very powerful strategy for teacher professional learning, especially when compared with some traditional face-to-face model of teacher professional development. My findings showed that teachers learn better when they watch either their own video or video of a teacher they do

not know, than watching the video of a colleague they know personally. It seemed many teachers found it difficult to criticize the performance of their colleagues. I also found that teachers learn better when they video record their own classroom teaching by themselves or watch a professionally shot video of an unknown colleague than when a researcher/third party comes into their classroom to video record them. Additional findings also showed that teachers learn better when they watch videocases collaboratively with their colleagues or a trained coach than when they watch video cases alone.

My Ph.D. work continues along this line, seeking to fill some of the gaps I identified in the meta-analysis. I decided to participate in the Three Minute Thesis, taking the challenge to present the findings of the meta-analysis in less than 3 minutes. Why did I decide to participate? I wanted to have the experience, share my interesting findings to create awareness for my work, and to engage with other colleagues. I enjoyed every aspect of the experience, from crafting my scripts, to getting feedback from friends, colleagues, and advisors, rehearsing several times, learning to concentrate on what is essential, managing time, and then to finally get on the big stage to present. I was able to do it in about 2 minutes and some 50 seconds. I enjoyed listening to other presenters and was thrilled by everyone's presentations. It was such a competitive experience. Eventually, I was declared the winner for the College of Education. I went ahead to represent the College of Education at the university level and came fifth out of 10 enlisted participants. The university-wide edition was done via Zoom because of COVID-19. I enjoyed the whole experience and encourage more people to take the courage to participate.

My goal for the future of this work is to fill in the gaps identified in my meta-analysis through experimental and observational studies, particularly studying how learning takes place during videocase analysis using eye-tracking technology and methodology.

See page 8 for a visual from Samuel's 3MT presentation.



Research Centers & Labs

The Learning and Performance Research Center (LPRC) is housed in the Educational Psychology program in the College of Education. Our researchers focus on optimizing learning and performance in a variety of contexts and content. Through the use of advanced methodological techniques, we work to solve applied problems that influence educational policy and practice. The LPRC houses three research laboratories: the Psychometric Laboratory directed by Dr. Brian French, the MERIT Laboratory directed by Dr. Sola Adesope and Dr. Kira Carbonneau, and the Large Scale Data (LSD) Laboratory, directed by Dr. Kira Car**bonneau** and **Dr. Shenghai Dai**. Our faculty provide *leader*ship, training, consultation, and state-of-the-art solutions to challenging educational research questions at the university, state, national, and international levels. Through our work, we have a 10 year history of averaging over 1 million dollars in funding each year to the College of Educa-

Psychometric Laboratory

The Psychometric Laboratory, in addition to normal research activities, focused on continuing to build the Portal for Supporting Successful Outcomes (psso.wsu.edu) and the WARNS assessment system (warns.wsu.edu) and securing new funding. The lab continues to expand the Washington Assessment of the Risks and Needs of Students (WARNS) research-to-practice project in the state of Washington. Notably, WARNS provides services to 91 subscribing organizations. During 2019, a total of 4,125 assessments were completed in Washington State. We expanded our efforts to include graduate students in both the research and practice aspects of WARNS. New developments included the Spanish language version of both the high school and middle school instruments as well as the establishment of threshold scores for the middle school instrument, and pilot work for a computerized adaptive test (CAT) version of the assessment. In other news, a new contract was secured with Curriculum Associates, Inc. (CA), to work on the latest installment of the Inventory of Early Development, a whole-child assessment tool for children from birth through seven years old. This contract marks the third collaboration between the LPRC and the testing company.

MERIT Laboratory

In 2019, the MERIT lab offered 103 research sessions to COE undergraduates and collected longitudinal data relat-

ed to learning mathematics concepts with concept maps, worked examples and a few other learning strategies with about 1,200 undergraduate students, mostly from STEM areas. With the support of the COE, the MERIT lab was able to purchase eye-tracking stations for three of the six testing stations. In 2019, three federal grants were funded and led by researchers in the lab. The MERIT lab funded three graduate research assistants and about 15 students with hourly pay to collect data in and out of the lab, run the daily functioning of the lab and work on different federally-funded projects. These types of opportunities support students not only in their financial standing but also in valuable hands-on experience of data collection, analysis and other foundational research skills. In a recent project, faculty and students in the lab examined the effects of concept maps and worked examples in learning procedural and conceptual skills in Mathematics.

LSD Laboratory

The Large-Scale Data lab (LSD lab) is was created in May 2019 with the support from the LPRC, the 2019-2020 WSU College of Education High-Risk/High-Reward grant, and the 2019-2021 WSU New Faculty Seed Grant. Currently, it is co -directed by Dr. Shenghai Dai and Dr. Kira Carbonneau, both are faculty of WSU Educational Psychology. The purpose of the LSD lab is to provide our faculty and students with a physical secured space required by confidential data licensing such as the National Assessment of Educational Progress (NAEP) and other large-scale assessment and survey programs. Specifically, the lab has the capacity and personnel to support the storage and analysis for confidential large-scale data: (1) it is of high-security and currently holding restricted-use data licenses from the federal government; (2) it is equipped with standalone powerful computers and software that can handle big data, and (3) personnel have expertise in big-data analytics and quantitative methods, and also have experience collaborating with scholars across multiple fields. In 2019-2020 the lab was equipped by one federal secure data license of the NAEP data and two powerful computers with specialized software to promote the research capacity and activities for both faculty and students. The lab received \$34,191.00 from three internal grants and was able to fund several graduate students in the summer of both 2019 and 2020. The resources of the lab in large-scale assessments also supported Drs. Dai and Carbonneau to submit multiple external grant proposals in collaboration with researchers

Research Centers & Labs, cont'd

from both inside and outside WSU. In addition, with the support of the lab, Olasunkanmi Kehinde, one of our current graduate students, won the opportunity to attend the 2020 NAEP data training (https://news.wsu.edu/2020/01/10/doctoral-student-wins-competitive-spot-national-data-workshop/).

A recent project that we have been focusing on with other faculty, is an IES grant proposal titled *Identifying malleable factors and practices supporting culturally and linguistically diverse students' STEM learning: What can we learn from NAEP and State Policies?* The objectives of this project are to explore both current EL policies and practices in K-12 and NAEP data to identify factors, policies, and practices associated with EL student success across multiple STEM disciplines at district, state, and national levels. The ultimate purpose is to promote STEM learning for EL students and increase enrollment in higher education and STEM careers.

Our Research Centers & Labs

Learning and Performance Research Center (LPRC)

Cleveland Hall Room 80 http://labs.wsu.edu/lprc/

Psychometric Lab

Located within the LPRC https://labs.wsu.edu/psychometric/

MERIT Lab

Cleveland Hall Room 51 https://labs.wsu.edu/merit/

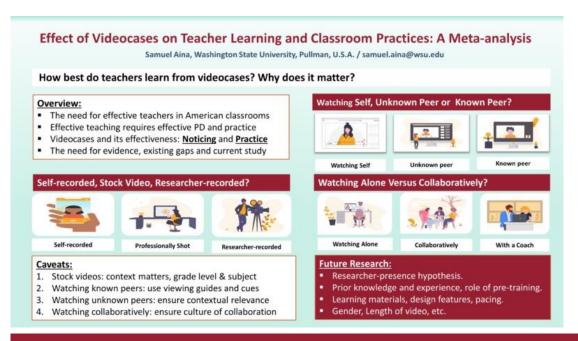
LSD Lab

Located within the LPRC Stay tuned for a lab webpage!









A visual from Samuel Aina's 3MT presentation. See page 6 for the full article!

Student Research

We are happy to share some of the papers presented by educational psychology students at conferences and published in journals in academic year 2019/2020. This list only features some of our students' work and is not a comprehensive list. Students' last names are in bold.

- Adesope, O. O., Nesbit, J. C., & **Sundararajan, K.** (In Press). *The Mapping Principle in Multimedia Learning.* In R. E. Mayer & L. Fiorella (Eds.), *The Cambridge Handbook of Multimedia Learning, 3rd Edition.* Cambridge University Press.
- Adesope, O. O., **Wong, R. M.,** & Nishida, K. (2020, August). *Scaffolded concept map vs. Self-constructed concept maps in an ecologically valid environment.* 2020 American Psychological Association (APA) Annual Meeting, Washington, D.C.
- **Alpizar, D.,** Adesope, O. O., **Wong, R. M.** (in press). A metaanalysis of signaling principle in multimedia learning environments. *Educational Technology Research and Development*. Advance online publication. https://doi.org/10.1007/s11423-020-09748-7.
- **Alpizar, D.,** French, B. F., & **Vo, T.** (2020). Equivalence testing of a youth risk and needs assessment. *Journal of Psychoeducational Assessment*. https://doi.org/10.1177/0734282920930892.
- Alpizar, D., French, B.F., Vo, T.T., Demir, C. & Kaplan, A. (2020, Apr 16-20). Support for three validity inferences for the Motivational-Development Assessment for university students [Paper Session]. AERA Annual Meeting, San Francisco, CA. http://tinyurl.com/rkqv97m (Conference Cancelled).
- Carbonneau, K.J., **Van Orman, D. S. J.,** Lemberger-Truelove., M., & Atencio, A. (2019). Leveraging the power of observations: Locating the sources of error in observing early childhood classrooms. *Early Education and Development*. 31(1), 84-99. https://doi.org/10.1080/10409289.2019.1617572.
- Carbonneau, K. J., & Van Orman D. S. J. (in press). Instrumentation (as a threat to internal validity). In B. B. Frey (Ed.) *The Sage Encyclopedia of Research Design*. Sage.

- Carbonneau, K. J., **Wong, R. M.,** & Borysenko, N. (in press). Overcoming the detrimental effect of perceptually rich manipulatives on mathematics problem solving and perseverance. *Contemporary Educational Psychology*. Advance online publication. https://doi.org/10.1016/j.cedpsych.2020.101846.
- Danielson, R., Schultz, J., **Jin, G.**, **Ramazan, O.**, & Kirking, S. (2020, April). Putting the Science in Sport Science: Using Kinesiology as a Bridge to Engagement in STEM. Paper presented [Roundtable Session] at the annual meeting of American Educational Research Association (AERA), San Francisco, CA. http://tinyurl.com/u87ufq2.
- Demir, C., Vo, T. T., French, B.F., Kehinde, O., & Hand, B. (2020, Aug 6-8). Critical thinking profile Korean, Turkish and U.S Students [Poster Presentation]. American Psychological Association Annual Meeting, Washington, D.C (Virtual Conference).
- French B. F., & **Vo, T**. (In Press). Differential item functioning of a truancy assessment. *Journal of Psychoeducational Assessment*.
- French, B. F., & **Alpizar**, **D.** (in press). [Review of the Diagnostic Adaptive Behavior Scale]. In J. F. Carlson, K. F. Geisinger, and J. L. Jonson (Eds.), The Twentieth First Mental Measurements Yearbook (pp). Lincoln, NE: *Buros Center for Testing*.
- Gotch, C. M., Carbonneau, K. J., & Van Orman D. S. J. (in press). Preparing Pre- Service Teachers for Assessment of, for, and as Learning. In S.L Nichols and D. Varier (Eds.) Teaching on Assessment: Theory to Practice: Educational Psychology for Teachers and Teaching (Vol. 1). Information Age Publishing.
- Gotch, C. M., & Van Orman, D. S. J. (in press). [Review of the Social Language Development Test- Elementary: Normative Update]. In J. F. Carlson, K. F. Geisinger, & J. L. Jonson (Eds.). The Twenty-first Mental Measurements Yearbook. *Buros Center for Testing*.

Student Research, cont'd

- Gotch, C. M., Van Orman, D. S. J. & Carbonneau, K. J. (2020, April). Preparing preservice teachers for assessment of, for, and as learning. Paper accepted to the annual meeting of American Educational Research Association (AERA), San Francisco, CA. http://tinyurl.com/ruts97k.
- Higheagle Strong, Z., **McMain, E. M.**, Pinkham, J., Sobotta, A., & McFarland, J. (In press). Nez Perce college and career readiness: "wiiwyeteq'is" someone who moves along and is growing into an Elder. *Journal of Indigenous Research*.
- Hu, Y., Wong, R. M., Adesope, O. O., & Taylor, M. (in press). Effects of a computer-based learning environment that teaches older adults how to install a smart home system. *Computers & Education*. Advance online publication. https://doi.org/10.1016/j.compedu.2020.103816.
- Jin, G., Ramazan, O., Lee, D. K. L., & Danielson, R. W. (2020, April). The relationship between gender and science achievement: The mediation role of ICT usage at school. Paper presented [Roundtable Session] at the annual meeting of American Educational Research Association (AERA), San Francisco, CA. http://tinyurl.com/twhbyl7.
- McMain, E. M., & Bass, K. G. (2020, March). Morality with morels: What can mushroom foraging teach us about social and ecological justice? Washington State University Annual Interdisciplinary Conference on Social Justice, Pullman, WA.
- McMain, E. M., & Strong, Z. (in press). Troubling dominant understandings of emotion in educational settings:

 A critical reflection on research and curriculum.

 Critical Questions in Education, 12(1).
- McMain, E. M., & Torres, J. (2020, February). Eco-justice literacy in Stranger Things and The Overstory: Reimagining metaphors of interspecies relationships. Globalization, Diversity, & Education Conference, Spokane, WA.

- Noyes, J., Carbonneau, K.J., Gotch, C., & Matthew, S. (2019). Is a picture worth a thousand words? Evaluating the design of instructional animations in veterinary education. *Journal of Veterinary Medical Education*. 7(1), 69-77. https://doi.org/10.3138/jvme.0118-002r.
- Noyes, J. A., Welch, P. M., Johnson, J. W., & Carbonneau, K. J. (2020). A systematic review of digital badges in health care education. *Medical Education*, 54 (7), 600-615. https://doi.org/10.1111/medu.14060.
- Oni, O. S., Adesope, O. O., Strong, Z., & Sunday, O. J. (2020, August). Rethinking the application of culturally relevant education: A systematic review of Native American STEM learners. American Psychological Association (APA) Annual Meeting, Washington, D.C.
- Ramazan, O., Jin, G., Lippmann, M., & Danielson, R. W. (2020, August). *Illustrating misconceptions: Can drawing facilitate conceptual change?* [Paper presentation]. American Psychological Association (APA) Annual Meeting, Washington, D. C.
- Ramazan, O., Rougée, A., Danielson, R. W., & Ardasheva, Y. (2020, April). Effects of classroom and school climate on linguistically diverse students' PISA mathematics self-concept and achievement scores. Paper presented [Roundtable Session] at the annual meeting of American Educational Research Association (AERA), San Francisco, CA. http://tinyurl.com/t2zloqu.
- Reilly, K. M., Adesope O. O., & Erdman. P. (2020). The Effects of Dogs on Learning: Meta-Analysis, *Anthrozoos*, 33:3, 339-360. https://doi.org/10.1080/08927936.2020.1746523.
- **Sundararajan, K.,** & Adesope, O. O. (2020). Keep it coherent: A meta-analysis of the seductive details effect. *Educational Psychology Review, 32,* 707 734.

Student Research, cont'd

- **Sunday, O. J.**, Adesope, O. O., & Maarhuis, P. (2020, April). *The effects of smartphone addiction on learning: A meta-analysis.* Paper presented [Roundtable Session] at the annual meeting of American Educational Research Association (AERA), San Francisco, CA.
- **Sunday, O. J.**, Adesope, O. O., & **Oni, O. S.** (2020, August). A systematic review of smartphone addiction on learning. 2020 American Psychological Association (APA) Annual Meeting, Washington, D.C.
- Trevisan, M., Carey, J., Martin, I., & **Sundararajan, N**. (Accepted, 2020) School counselor state licensure requirements and professional accreditation standards in program evaluation. *Journal of School-Based Counseling Policy and Evaluation*.
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