While culturally diverse, Appalachia has been described as a “region apart.” Isolated by a mountainous region, Appalachians value neighborliness, love of home and reliance on oneself rather than on outsiders intent on helping. Statistically, the region lags behind the nation and Ohio in most socioeconomic and health indicators, including: poverty, housing, education, employment, health behaviors, health outcomes and overall quality of life. Appalachians are also the most sedentary population in the U.S. Only 13.6 percent of teens reported 60 minutes of daily moderate activity, and 78.2 percent reported no vigorous physical activity in the past week.

Rick Petosa, Human Sciences, and Laureen Smith, College of Nursing, have received a $2M grant from the National Institutes of Health to conduct a randomized control trial (RCT) of an innovative method to promote regular exercise among Appalachian teens. The purpose is to increase physical activity patterns and improve health outcomes in Appalachian teens. The approach uses peer mentors to deliver the culturally appropriate, self-regulation intervention to sustain physical activity. The study will compare the efficacy of the mentoring program (Mentored Planning to be Active [MBA]) to a teacher-led program (PBA) for increasing physical activity in Appalachian high school teens. They will test the hypothesis that, compared to delivery by teachers (PBA) in a classroom setting, an innovative delivery format of MBA by local peer mentors will promote the adoption of healthier physical activity and regular exercise among teens by combining peer mentoring with a tailored self-regulation lifestyle program.

This study will guide the development of more effective and sustainable interventions (currently lacking) specifically targeting residents of Appalachia, a region with disproportionately high prevalence rates of childhood obesity and significant challenges to achieving healthy lifestyles.

The current study will take place over the next four years, involving 20 schools and over 1,700 students. Rick Petosa observed, “Over the past 10 years we have found southern Ohio schools very supportive of innovative programs and collaboration with The Ohio State University.” Laureen Smith adds, “Our mentoring approach provides a sustainable means for schools to provide needed health and exercise information in a culturally appropriate yet flexible and adaptable way.”

For more information about this award, please contact Rick Petosa at petosa.1@osu.edu.
In 2010 the Institute of Education Sciences, US Department of Education (http://ies.ed.gov/), funded a bold and innovative research initiative called Reading for Understanding (RFU). This initiative established a Research and Development network comprising five core teams and one assessment team that would collectively engage in intensive, applied research designed to substantially advance the field of reading comprehension – both in terms of improving our fundamental understanding of reading comprehension as a cognitive process, and in terms of developing interventions that effectively improve reading comprehension among children and adolescents. With more than $100M provided to support the initiative, analogies were made between RFU and the effort to land a person on the moon set forth in 1961: “Surely the goal of teaching our children how to read – both in terms of improving our fundamental understanding of reading comprehension as a cognitive process, and in terms of developing interventions that effectively improve reading comprehension among children and adolescents. With more than $100M provided to support the initiative, analogies were made between RFU and the effort to land a person on the moon set forth in 1961: “Surely the goal of teaching our children how to read for understanding is as important to each child and to the nation as a whole as being the first country to reach the moon... a tightly networked and coordinated group of social scientists can work together to accomplish the goal of rapidly increasing the nation’s ability to teach children how to read for understanding” (taken from the IES program description).

The Language and Reading Research Consortium (LARRC), one of the six RFU core teams, was based in EHE and involved Laura Justice, Shayne Piasta, Ann O’Connell, Richard Lomax, Jessica Logan, Jill Pentimonti and numerous professional research staff, graduate students, undergraduate students and postdoctoral researchers. LARRC also involved co-investigators at Arizona State University, Florida State University, Massachusetts General Hospital Institute of Health Professions, University of Nebraska-Lincoln, University of Kansas and Lancaster University in the UK.

The work of this consortium was focused specifically on improving our understanding of the language bases of reading comprehension or, put simply, the way in which language skills facilitate the development of reading comprehension. Our work included a longitudinal study of children from four to nine years of age, as well as experimental work developing and testing language-focused interventions to examine effects on children’s reading comprehension. The emerging results of the team’s effort have been published in Child Development; Reading Research Quarterly; Elementary School Journal; Journal of Speech, Language, and Hearing Research; and Educational Psychology Review.

One outcome of LARRC’s effort is the development of a curricular supplement – Let’s Know! - designed to improve children’s reading comprehension by targeting growth in language skills. Let’s Know! was developed through two years of design studies (2010-2012), followed by a quasi-experimental pilot study (2012-2013) and a multistate randomized controlled trial (2013-2015). Let’s Know! provides a scope and sequence of instructional objectives designed to enhance children’s lower-level (grammar, vocabulary) and higher-level language skills (comprehension monitoring, inferencing, text structure knowledge). The scope of instruction appears in the “Let’s Know! Scope of Instruction” (page 3). Separate but aligned versions are available for each of five grades, transcending pre-kindergarten to third grade. Each version includes 25 weeks of lessons organized into four units, as well as progress-monitoring assessments and professional development modules. The design studies conducted were important for creating a curricular supplement that teachers could use with relatively high levels of fidelity, so that children were exposed to all of the targeted objectives. The results of the two-year randomized controlled trial testing Let’s Know! are currently being analyzed. However, some initial findings from the design studies and pilot work have been published, suggesting that the curricular supplement has promising effects when used within pre-K to grade three settings.

One paper examined the effects of Let’s Know! on the quality of language arts instruction (LARRC, Pratt, & Logan, 2015). This study involved 60 classrooms (12 per each of pre-K to grade 3) and quasirandom assignment of teachers to implement versions of Let’s Know! (experimental group, n = 40) or to maintain their usual approach to language arts instruction (control group, n = 20). The goal of this study was to determine whether teachers’ use of Let’s Know! appeared to elevate the quality of their instruction. We used two measures to assess instructional quality: the Classroom Assessment Scoring System (CLASS) and Snippets. CLASS is a commercially available observational tool that captures the global quality of the instructional environment. Snippets is a LARRC-developed observational tool that captures teachers’ use of 18 practices that exemplify high-quality comprehension instruction.
instruction, such as making predictions and drawing inferences. This study showed that language arts instruction provided by the teachers using *Let’s Know!* was substantially higher in quality as assessed with both measures.

Another study examined the effects of teachers’ use of *Let’s Know!* on student outcomes, focusing specifically on implementation within pre-kindergarten classrooms (LARRC, Johanson, & Arthur, in press). Participants were 22 teachers, 11 of whom implemented one of two variations of *Let’s Know!* for 21 weeks and 11 of whom maintained their typical language arts practices during the same time period. A subset of children within each classroom was randomly selected to complete pre- and post-test assessments of their language skills in the fall and spring of the academic year. Results suggested that children exposed to *Let’s Know!* made greater gains than those in control classrooms over the academic year.

Currently, the LARRC team is developing a website through which the *Let’s Know!* materials can be made freely available to the public. At the same time, team members are exploring future research ideas for continuing to investigate the effects of *Let’s Know!* such as its applicability to reading instruction for children with disabilities.

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**LET’S KNOW! SCOPE OF INSTRUCTION**

**Domain** Language Skills Targeted within Domain

**Word Knowledge (Vocabulary)** To use and define a variety of academically relevant words of various classes (verbs, adverbs, etc.); to distinguish shades of meaning among these words and generate associations among them; to use key words to identify relations within texts (e.g., sequences)

**Grammar** To use a variety of complex sentence types and phrasal structures; to use word structure elements to determine and analyze word meanings; to use a variety of inflectional and derivational morphemes

**Integration** To synthesize information within texts (narrative and expository); to make inferences about texts; to monitor comprehension and identify when something does or does not make sense; to generate predictions and to confirm and revise them

**Text Structure** To use the key features of narrative (e.g., dialogue) and expository texts (e.g., compare/contrast charts) and knowledge of differences between the two types of texts; to identify main topic and subtopics; to identify major story grammar units; to use key words to identify major text structures (e.g., cycle/sequence)

*Domain captures higher-level skills of inferencing and comprehension monitoring*
Faculty from EHE have received external funding to conduct and create health and wellness-related research, services and training programs. Topics range from creating nutrition education and cooking programs to combatting childhood obesity to suicide prevention. More than $4M has been awarded to the college for the following 12 research awards. The following awards are currently active or were active within the past three months.

**Skill-based RCT for physical activity using peer mentors**
Rick Petosa, Human Sciences
As featured in our cover story, p.1

**Purpose:** train peer mentors to deliver culturally appropriate intervention and provide the social support that is critical for facilitating and sustaining health behavior change. The long-term goal of this study is to positively impact physical activity patterns to improve health outcomes, including the high rates of obesity in Appalachian teens.

**Suicide prevention among substance abusing homeless youth**
Natasha Slesnick, Human Sciences

**Purpose:** pilot test an intervention that has demonstrated feasibility and promise with adolescent suicide attempters. One-hundred fifty homeless youth with recent severe suicide ideation will be randomly assigned to the experimental cognitive therapy for suicide prevention in addition to services normally offered through a local drop-in center.

**Evaluation of maternal, infant and early childhood home visiting program prenatal curriculum**
David Julian, CETE

**Purpose:** provide the opportunity to add to knowledge and practices regarding interventions aimed at improving health outcomes for Ohio mothers and their children. Evaluators have designed a formal, state-of-the-art evaluation study to gain insight into the impact of an online training program called “InJoy Understanding Birth eClass.” Evidence has suggested that home visiting programs are powerful tools to address health disparities and other issues impacting pregnant women in Ohio.

**Simple suppers scale-up: A nutrition education and cooking program delivered in the daycare setting designed to improve diet quality and weight status in preschool aged children**
Carolyn Gunther, Human Sciences

**Purpose:** test a weekly hands-on program that combines nutrition education with skill building in cooking/food preparation for children and their parents, delivered over 3 months. Sessions will include nutrition education, cooking, family meal preparation, group meal, take-home educational materials, homework and session evaluation. This study can be expected to have a significant positive impact by providing a prototype for early establishment of healthy behaviors that leads to long-term benefits in promoting a lifestyle of healthy eating.

**Training competitive nutrition scientists from underrepresented backgrounds in 21st century skills to stem the tide of childhood obesity**
Carolyn Gunther, Human Sciences

**Purpose:** recruit four minority Scholars to the OSU undergraduate Human Nutrition program, nurture their academic development via intensive mentoring, research and outreach experiences, and provide enrichment activities. This program will enhance the competitiveness of students for admission and success in post-baccalaureate professional and graduate programs.

**Development of effective behavior based standard operating procedures for fresh cut leafy greens in retail foodservice operations**
Soobin Seo, Human Sciences

**Purpose:** develop a behavior-based food safety training program and standard operating procedures for the proper handling of fresh and fresh cut produce that can be implemented in all types of foodservice operations. This program also addresses consumer expectations and helps reduce the incidence of foodservice-originated foodborne illnesses associated with fresh and fresh cut produce in the US.
Child and adult care food program (CACFP)
Laura Justice, CCEC

**Purpose:** provide aid to child and adult care institutions and family or group day care homes for the provision of nutritious foods that contribute to the wellness, healthy growth and development of young children, and the health and wellness of older adults and chronically impaired disabled persons.

**Cognitive and physical benefits of AdvoCare Spark energy supplement**
Jeff Volek, Human Sciences

**Purpose:** examine the effects of Spark on an array of cognitive functions, physical performance and mood in men and women. The study will also examine localized and global changes in brain activity before and during cognitive and physical tests.

**Effects of GinST-15 on performance, stress, and neurophysiology in humans**
William Kraemer, Human Sciences

**Purpose:** investigate the effects of GinST-15 on several increasingly well-recognized areas of potential benefit in humans: metabolism, physical performance, adaptation, recovery and related brain functions. The study will examine the effects of two weeks of supplement ingestion on various aspects of physical performance, recovery, biological activity, neurophysiological activity and perceptual/cognitive performance.

**Effects of H9 hydrogen rich structured water on cognitive and physical performance in humans**
William Kraemer, Human Sciences

**Purpose:** assess whether consuming hydrogen-rich water before, during and after a heavy resistance training protocol can demonstrate antioxidant effects leading to a reduction in skeletal muscle damage and fatigue. The study will also explore whether hydrogen-rich water can reduce cognitive and physical performance decrements after acute repetitive springs and heavy resistance exercise.

**The Evaluation of a lifestyle intervention for employees with prediabetes**
Carla Miller, Human Sciences

**Purpose:** enable the investigators to refine recruitment strategies and intervention procedures to develop a potentially sustainable university-based program for employees with prediabetes for a larger translational clinical trial. Participants will be randomly assigned to either a 16-week, group-based, lifestyle intervention delivered at the worksite or to usual care. The 16-week group-based intervention, adapted from the Diabetes Prevention Program, emphasizes reduction in dietary fat and energy intake and at least 150 minutes/week of moderate physical activity.

An integrated approach to enhance the microbial safety of fresh-cut fruit and vegetable products during processing, packaging, and retail distribution
Robert Scharff, Human Sciences

**Purpose:** enhance the microbial safety and quality of ready-to-eat, fresh-cut produce via integrated research and outreach/training targeted at the processing, packaging and retail distribution segments of the produce chain. The study will serve to enhance the safety and quality of fresh-cut fruits and vegetables and reduce the number of produce-related outbreaks.

If you are interested in additional information about any of these projects, please contact the principal investigator (listed in red after the project title).
TRAVEL AWARDS
The following individuals received EHE Travel Awards in June 2015.

GRADUATE STUDENT TRAVEL
Educational Studies
Alyssa Emery
Seung Yon Ha
Julie Maurer
Naima Shirdon

Human Sciences
William DuPont
David Hooper
Congrong Ouyang
Victor Pool
Catherine Rogers

Teaching and Learning
Patricia Biancone
Eileen Buescher
Kristin Farley
Robert Kelly
Min Young Kim
Stephen Lewis
Sarah Lightner
Christine Stamper
Melissa Weber-Mayrer
Ya-Li Wu

POSTDOCTORAL TRAVEL
Teaching and Learning
Bashirah Ibrahim

FACULTY INTERNATIONAL TRAVEL
Educational Studies
Douglas Macbeth

Human Sciences
Leslie Stoel, Brian Turner

Teaching and Learning
Theodore Chao, Azita Manouchehri, George Newell, Ian Wilkinson

GRADUATE STUDENT TRAVEL GRANT APPLICATIONS FOR TRAVEL BETWEEN NOV. 2015 - JAN. 2016 DUE OCT. 1, 2015

APPY ONLINE
Faculty International Travel Grant Program and Postdoctoral Researcher Travel Grant Program applications are accepted at any time during the year and must be submitted PRIOR to travel.

UNIVERSITY FELLOWSHIP Awardees
Welcome to our new graduate students! We want to congratulate you on receiving University Graduate Fellowships.

Educational Studies
Irina Kuznetcova
St. Petersburg State University

Marcos Rivera
Richmond University and Temple University

Human Sciences
Aejin Lee
Seoul National University

Vincent Miller
A.T. Still University

Christine Penicka
Cornell University

Teaching and Learning
Sarah Jackson
Hollins University

Jessica Somerville
Southern Connecticut State University

Sanja Ilic and Irene Hatsu, both Human Sciences, received a $19,000 OSU CARES Seed Grant to study food safety and nutrition knowledge and attitudes in teachers of visually impaired and blind youth: “Teaching Food Safety and Nutrition to Visually Impaired Students: Content Knowledge, Attitudes, and Practices Of Teachers.” Additional partners include Tiffany Wild, Teaching and Learning; Linnette Gord, OSU Extension; and Dan Remley, OSU Extension.

For more information, please go to osucares.osu.edu/grants/2015seed.html

Sanja Ilic
Irene Hatsu

GIMBERT RECEIVES 2015 DISTINGUISHED RESEARCH AWARD
The Ohio State University College of Education and Human Ecology (EHE) recently honored CETE’s Belinda Gimbert, associate professor of Educational Studies, with the 2015 Distinguished Research Award.

The award acknowledges individuals who advance the research field through transforming and integrating knowledge, facilitating learning, solving compelling problems, contributing to public policy, evaluating practices and programs, or interpreting knowledge for relevant audiences.

For more information, please go to go.osu.edu/GimbertResearchAward.
NEW RESEARCH AWARDS

Faculty and staff in the college received 11 new awards between March 1, 2015, through June 30, 2015. The anticipated total award amount for all 11 awards is $3,011,654.20. For additional information on these and previous awards, go to u.osu.edu/eheresearchawards/

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<tr>
<th>PI/Co-I</th>
<th>Department</th>
<th>Sponsor Name</th>
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<tr>
<td>RICHARD BRUNO; Jeff Volek</td>
<td>Human Sciences</td>
<td>Dairy Management Inc.</td>
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<tr>
<td>RICHARD BRUNO</td>
<td>Human Sciences</td>
<td>University of Wisconsin (Dairy Research Institute)</td>
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<tr>
<td>THEODORE CHAO</td>
<td>Teaching and Learning</td>
<td>Virtual Learning Technologies (Institute of Education Sciences)</td>
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<td>KAREN IRVING; Andrew Heckler;</td>
<td>Teaching and Learning</td>
<td>Ohio Board of Regents (US Department of Education)</td>
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<td>Rachel Kajfez; Kathy Malone</td>
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<tr>
<td>WILLIAM KRAEMER; Carl Maresh;</td>
<td>Human Sciences</td>
<td>ILHWA Co. Ltd.</td>
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<td>Jeff Volek</td>
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<td>BRIDGET LEE</td>
<td>Teaching and Learning</td>
<td>National Endowment for the Arts</td>
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<td>NANCY NEEF</td>
<td>Educational Studies</td>
<td>Columbus City School District</td>
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<td>REBECCA PARKER; Robert Mahlman</td>
<td>COTE</td>
<td>Ohio Department of Education</td>
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<td>TERESA SHIVERDECKER</td>
<td>Ohio Resource Center</td>
<td>Ohio Board of Regents (US Department of Education)</td>
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<td>NATASHA SLESNICK; Xin Feng;</td>
<td>Human Sciences/Educational Studies</td>
<td>National Institute on Drug Abuse</td>
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<td>Darcy Granello</td>
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<td>RICK PETOSA/ LAUREEN SMITH;</td>
<td>Human Sciences</td>
<td>National Institute of Child Health and Human Development</td>
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<td>Abigail Shoben; Laura Szalacha</td>
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EHE RESEARCHERS RECEIVE ONE OF FOUR SCIENCE/TECHNOLOGY AWARDS FUNDED BY BATTELLE ENDOWMENT

The Battelle Engineering, Technology and Human Affairs (BETHA) Endowment annual grant competition supports projects that examine the complex relationship between science and technology on society and cultural issues. This year, 27 proposals were submitted for consideration, of which four projects were selected for funding. A project proposed by EHE researchers was among the four selected.

Culturally Relevant Reading Instruction for Urban Learners Using Voice Activated Computer Assisted Instruction (CAI) will use newly developed voice recognition software to deliver oral reading intervention and culturally relevant reading materials to improve the reading fluency and comprehension of first- and second-grade urban learners at risk for reading failure. Ralph Gardner III, professor, Educational Studies, will lead the project. Co-investigators are: Gwen Cartledge, professor emeritus, Educational Studies; Eric Fosler-Lussier, associate professor, Computer Science and Engineering; Rajiv Ramnath, director, Collaborative for Enterprise Transformation and Innovation (CETI); Morris Council III, research associate, Educational Studies; Jessica Bennett, postdoctoral researcher, Educational Studies. For additional information, please go to go.osu.edu/GardnerBETHA.
GOT METHODS? WE DO!
INTRODUCING EHE’S RESEARCH METHODOLOGY CENTER

EHE’s new Research Methodology Center (RMC) aims to build capacity in research methodology for EHE faculty, research staff, and students through a variety of mechanisms and supports. We are dedicated to advancing methodology and strengthening skills in the broad range of techniques and approaches – quantitative, qualitative, or mixed methods – used by our faculty, in turn enhancing research productivity and quality across the college. Planned activities for the center include professional development via methodological trainings for our college community; statistical/methodology consultation and support for data analyses and research grant submissions; assisting faculty in streamlining data collection and data management; enhancing access to and utilization of large-scale databases; and improving software access and use. We have several creative activities and events in the works and hope you can join us as our efforts develop!

As we begin to identify training needs and coordinate expertise across the college, we want to hear from you. Please look for our collegewide survey in early autumn and share your suggestions for center activities with us. And join us for our open house on September 24th from 12-2 PM! We are located in 173 and 177 Arps Hall. Feel free to stop by to see your new center!

You can also visit our website at go.osu.edu/methods or send us an email with questions, comments, or suggestions to rmc@osu.edu or contact Director Ann O’Connell at oconnell.87@osu.edu.

WORKSHOPS:

INTRODUCTION TO OFFICE OF RESEARCH AND RESEARCH METHODOLOGY CENTER SERVICES
September 18, 2015
260 Ramseyer, 1:00 PM
Register:
go.osu.edu/ORServices2015

IRB COMPLIANCE: COMPLIANCE, QUALITY AND CONSENT
October 13, 2015
260 Ramseyer, 1:00 PM

FINDING FUNDING OPPORTUNITIES
November 5, 2015
260 Ramseyer, 1:00 PM

Additional registration details coming soon. If you would like to be added to our events mailing list, please contact Rebecca Chacko at chacko.9@osu.edu.

SAVE THE DATE!!!

SIXTH ANNUAL STUDENT RESEARCH FORUM
FEBRUARY 12, 2016

To join the planning committee, please contact Rebecca Chacko at chacko.9@osu.edu.

Research Forum Website:
u.osu.edu/ehestudentresearch/

TAMING THE DATA BEAST?
LET IDEC HELP YOU!

Are you looking for a partner on a project that will be collecting data?

Here at the International Data Evaluation Center (IDEC), we love data. We specialize in creating data systems that support large-scale human subjects research. Our main mission is to process data for Reading Recovery (RR), and last year we collected data on over 67,000 students, teachers and schools from across the United States. Between the months of May and August 2014, our customized reporting system produced over 5,200 standardized reports for RR stakeholders. IDEC has also been supporting the $56 million i3 scale-up grant that RR received just over four years ago. This included modifying our website to support a national-scale multiyear randomized control trial, working with external evaluators and supporting RR teacher leaders with the data entry process. But IDEC is not all computer code, databases and technology-related acronyms. We also provide onsite and online seminars to RR teacher leaders, teaching them how to use the data we provide. This includes our “The IDEC Data Dump – The Beginners How-To Guide” and “How to Make Charts Using the IDEC Data Dump” seminars. To learn more about IDEC’s services, visit our website at idecweb.us.

Contact Jeff Brymer-Bashore, Director of IT and Ops at brymer-bashore.1@osu.edu and let us help you collect data so you can focus on research.