Scott Snyder, EPR

Innovations in measurement

• Applications of Rasch measurement
• Improving grading in higher education
• Assessing teamwork
• Measuring the loss of financial capacity and related correlates

Improving RTI in K-8 grades
Current projects

• Instrument development for: financial capacity in the elderly, acceptance of evolution, individual and group healthcare teamwork in simulated environment
• Assessing faculty attitudes about grading in college
• Assessing innovations in college grading
• Implementing and assessing a system for providing teachers with internet resources that are linked to learning errors
• Evaluation/data analysis for a variety of projects
Possible future opportunities and collaborators

- Multiple college consortium to study college grading
- Funding to expand and test the EPAL system
- Generating scholarship across UAB tied to measuring teamwork as part of the QEP
Gordon Fisher, Ph.D., FACSM
Assistant Professor
Department of Human Studies
Division of Kinesiology

Secondary Appointments:
- Nutrition Sciences
- Nutrition Obesity Research Center
- Center for Exercise Medicine
- Comprehensive Center for Aging
- Diabetes Research Center
Research Interests and Current Projects

• The benefits and efficacy of low volume HIIT for improving cardiometabolic health in obese/overweight individuals.

• To better understand whether mitochondrial bioenergetics dysfunction is central to the pathophysiology of insulin resistance and T2D

• Identify physiological and biological differences between AA and C that may explain greater risk for many cardiometabolic diseases in AA compared to C counterparts.
Possible future opportunities and collaborations
Possible future opportunities and collaborations
Summary of line of inquiry

• Interdepartmental research:
  • Mental health/physical performance gap
  • Clinical trials involving MH interventions & outcomes
  • Athlete-specific outcomes
    – Effects of head trauma, sub abuse, injury, suicide

• Counselor competency in sport
Current projects

- UAB Athletics Mental Health Needs Assessment
  - Coaches & AT’s as first responders
  - Student-Athlete experiences of MH

- NCAA Innovations in Research and Practice Grant

- Lived Experiences of International Athletes
Possible future opportunities and collaborators

- NCAA CHOICES (2/23/16)
- CHAAMPS (2/8/16)
  - Athlete head trauma
- Chronic stress & peak performance pilot
- Interventions & Outcomes:
  - Motivational Interviewing
  - Treatment adherence
  - Stress reactivity, emotion regulation, depression & anxiety
Kristi Menear, Kinesiology, Physical Education

Summary of line of inquiry:

• Adapted physical education
• Adapted physical activity
  – Autism spectrum disorders
Current projects

- APA interventions with children with ASD at
  - Oregon State
  - South Carolina
- Dissertations...dissertations...dissertations...
- Summary of where APA is and where we (researchers in North America) should go with ASD research
Possible future opportunities and collaborators

• Collaborative ones that I can assist with relative to APA or ASD
NORC Physical Activity Core and Research Interest

Gary R. Hunter

&

Kevin R. Fontaine
Services and Operation

- The Physical Activity Core offers supervised exercise training in a facility dedicated to resistance, power, and aerobic exercise training research; Strength and Aerobic fitness testing; Exercise ease and economy testing; and Free living physical activity evaluation using a variety of methodologies.
- Total investigators supported: 22
- Total projects supported: 13 (62% federally funded)
- Publications using Core services: 5
Specialized Areas of Expertise

• Fitness Evaluation: Strength, Aerobic Fitness, Locomotion Economy/Ease, Power, Flexibility, Body Composition.

• Exercise Training: Aerobic via Treadmill, Cycle Ergometer, Elliptical; Whole body resistance via free weights and 20 different Exercise Machines

• Free Living Physical Activity/Energy Expenditure
<table>
<thead>
<tr>
<th>Service for funded studies (50% less for small pilot studies)</th>
<th>Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aerobic fitness test while measuring heart rate and expired gases (VO$_2$max test)</td>
<td>$75</td>
</tr>
<tr>
<td>Maximal exercise test while measuring heart rate</td>
<td>$45</td>
</tr>
<tr>
<td>Submaximal ease/economy locomotion tests, (walking/stair climbing/biking)</td>
<td>$70</td>
</tr>
<tr>
<td>Submaximal ease/economy locomotion test, (one of the above)</td>
<td>$40</td>
</tr>
<tr>
<td>Strength tests</td>
<td>$15</td>
</tr>
<tr>
<td>Flexibility tests</td>
<td>$15</td>
</tr>
<tr>
<td>EMG measurement of ease during standing</td>
<td>$70</td>
</tr>
<tr>
<td>EMG measurement of ease/economy during walking while carrying</td>
<td>$65</td>
</tr>
<tr>
<td>Supervised resistance training or aerobic training (each session for one individual)</td>
<td>$30</td>
</tr>
<tr>
<td>Supervised training for multiple individuals up to 4 in a group</td>
<td>$40</td>
</tr>
<tr>
<td>Use of heart rate monitors and accelerometers for up to 4 days (including data acquisition)</td>
<td>$20</td>
</tr>
<tr>
<td>Use of heart rate monitors and accelerometers up to 4 days (no data acquisition)</td>
<td>$10</td>
</tr>
<tr>
<td>Arterial Elasticity</td>
<td>$20</td>
</tr>
</tbody>
</table>
Dayna Watson, Counselor Education

Scholarship Interests:

• Issues of poverty and social class in mental health counseling
• Multi-stressed schools
• Community-school collaboration

Other Professional Interests:

• Counselor-in-training development
• Counseling children/play therapy
Current projects

Pending IRB Approval
• Addressing Student Mental Health Needs in a Multi-Stressed School: A community-based participatory mixed methods study in partnership with Midfield Elementary School

In Data Collection
• Student-Athlete Help Seeking & First Responders: A needs assessment and qualitative study with UAB student athletes and coaching staff (PI: S. Hebard)

Writing Stage
• Always a few of these lingering on, right?
Possible future opportunities and collaborators

- Ongoing partnerships with Midfield City Schools
- UAB Community Counseling Clinic
- Expansions of previous smaller scale studies on issues of poverty and social class
Line of inquiry:

• Deconstruction of the researcher-researched dichotomy.
• Cultural competency and value hierarchies in research and evaluation.
• Epistemologies of place and socialization.
• Indigenous research methods.
Current Projects

• Participatory/Collaborative methods as mechanisms of achieving voice and value in research in evaluation.
• Strategies for developing rapport and building relationships with participant communities.
• Influence of culture and context as extraneous variable in program development and evaluation.
• Ethnography as culturally competent needs assessment.
Possible Future Opportunities and Collaborators

- Evaluation within underrepresented/disenfranchised communities
- Participatory/collaborative approaches in evaluation
- Sociocultural and international development and education contexts
Shannon McCarthy, Counselor
Education

Summary of line of inquiry:

– Intersection of family and community systems
  • Family-School-Community Collaboration
  • Family systems and health, mental health
– Qualitative Methodology/ Interview Processes
Current projects

• Family-School-Community Engagement assessment project with Midfield School District
  • Assessing 6 stakeholder groups’ perspectives of family & community engagement in Midfield High School in order to create intervention

• Family Obesity Assessment
  • Community-participatory assessment of low SES African-American families’ perspectives of solutions for childhood obesity and barriers Possible role of family therapy in solutions

• Integrating counseling microskills into qualitative methodology
  • Examining potential role of counseling microskills in improving qualitative interviewing skills/rapport
  • Eventual workshop development
Possible future opportunities and collaborators

- Expansion of Midfield Project
- Expand assessment to middle school and elementary school
- Implement high school intervention
- Incorporate other systemic needs: mental health training, health education, family systems training for school personnel, etc.
- Eventual expansion to other school systems
Research Interests (Eric Plaisance)

- Adaptive Thermogenesis
- Nutrient Sensing
- Exercise and nutrition-mediated remodeling of lipid metabolism
Current projects

- Mouse BAT Study
- CR Disparity Study
- LVAD Study
- Heart Matters Study
- CALM Study
Future opportunities and collaborators

- Continue to explore nutrient sensing and exercise-mediated improvements in energy expenditure and metabolism
- Continue to provide opportunities for individuals in HS to include benchtop measurements in grant submissions/manuscripts
Jane Roy, Kinesiology

• Barriers and Motivators to Physical Activity
• Exercise Adherence

• Body Image disturbance
• Playground and gymnasium safety
• College environment
• Effect of counselling
• Programming in the schools
• Gender and Ethnicity
• Bullying
• Individuals with Disabilities
Current projects

• Wellness Profiles of Teachers
• Barriers to Tennis Play in the Schools
• Effect of Counselling on Exercise Adherence in Women
• Health/Fitness Website Design in Individuals with Disabilities
• Weight Gain in College Students
Possible future opportunities and collaborators

Researchers with an interest in exercise or physical activity
Claire Mowling, Physical Education

Scholarship Interests:
• Gamification
• TPACK (Technology, pedagogy and content knowledge)
• Curriculum & Instructional Design

Other Interests:
• Teaching tennis in physical education
Current projects

Planning:
• Gamifying the classroom using the sport education model.
• Using gamification knowledge software as a tool for enhancing team based learning.

Writing:
• Keepin’ it Real: Teacher Candidates Use of a Facebook Group to Support One Another During Field Experience.

In Review:
• Soundball: Teaching Tennis to Students with Visual Impairments.
Possible future opportunities and collaborators

Possible Future opportunities
• Gamification: Oak Mountain Elementary

Possible Future Collaborators
• Kaizen: Dr. James Willig; Dr. Nancy Wingo
• Gamification: Dr. Jenelle Hodges
Gary Peters, Educational Leadership

Summary of line of inquiry:

• Cultural factors underlying leadership processes; organizational behavior from the structural, human resource, political and symbolic frames; and adaptations of leadership in crisis.
Current projects

- Perceptions of Crisis Management Plans among School Leaders in Select Alabama Public Schools
- Framing Tendencies in the Decision Making Process of School Administrators
- The Soft Skills of Leadership Intelligence.
Possible future opportunities and collaborators

- What natural disasters teach us about human behavior and leadership practices
- The influence of school culture and climate on new school administrators
Retta Evans
Community Health & Human Services

- Adolescent and college student behaviors related to physical activity, nutrition and weight concerns

- Improving health of K-12 students through wellness initiatives

- Women’s health issues - body image
Current projects

• Why College Students Gain Weight - A Mixed Methods Exploratory Approach

• Using the Transtheoretical Model to Assess Readiness to Teach Elementary Health Education

• Assessing Elementary School Teacher’s Beliefs about Implementing Classroom-Based Physical Activity

• CSPAP – comprehensive school PA programs
Effect of a Short Bout of Coordinative Exercise on Executive Function and Appetite

• We hypothesize that a 10 minute bout of coordinative exercise will improve executive function and decrease appetite among 9 and 10 year old children as compared to aerobic exercisers and controls.

• If short bouts of coordinative exercise can be shown to improve executive function among children, the development of policies requiring “exercise breaks” could improve academic outcomes.

• Additionally, if children who engage in “exercise breaks” throughout the day are less hungry and consume fewer calories, positive health benefits are possible.
Examining the Moral and Ethical Reasoning in Pre-Service Educational Leadership Students

Several decades of research has identified lower-than-expected moral reasoning abilities in professional educators (i.e., teachers, K-12 principals)
Current Project

• Explore potential development of moral/ethical reasoning capacities among educational leadership students

• Methods
  • Pre-Test upon entry (DIT2)
  • Complete standard curriculum (4 semesters)
  • Post-Test upon exit (DIT2)
DIT 2 National Norms

P score: percentage of time respondents selected arguments in each of the three schemas of moral judgment. (Scale 0-95)

<table>
<thead>
<tr>
<th>Education Level</th>
<th>Average P Score</th>
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<tbody>
<tr>
<td>Middle School (Junior High)</td>
<td>20s</td>
</tr>
<tr>
<td>Senior High School</td>
<td>30s</td>
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<tr>
<td>College</td>
<td>40s</td>
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<tr>
<td>Professional School</td>
<td>50s</td>
</tr>
<tr>
<td>Moral Philosophy/Political Science</td>
<td>60s</td>
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</table>

(Debeau & Thoma, 2003)
# Pre-Test Results

<table>
<thead>
<tr>
<th>Personal Interests Index</th>
<th>Maintaining Norms Index</th>
<th>Post-Conventional (P) Index</th>
<th>N2 Score</th>
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<tbody>
<tr>
<td>21.9</td>
<td>42.8</td>
<td>31.3</td>
<td>30.8</td>
</tr>
<tr>
<td>SD: 10.9</td>
<td>SD: 13.9</td>
<td>SD: 12.9</td>
<td>SD: 11.7</td>
</tr>
<tr>
<td>Range: 6-54</td>
<td>Range: 8-76</td>
<td>Range: 8-72</td>
<td>Range: 4-64</td>
</tr>
</tbody>
</table>

Potential Collaborations:
- Develop ethical leadership concepts for leaders
- Explore moral reasoning development in educators
- Expand respondent base to include pre-service teachers, doctoral students, etc.
Sandra Sims, 
Physical Education Teacher Certification

Summary of line of inquiry:

• Reviewing and promoting best practices for quality physical education in middle and high schools.

• Working with elementary classroom teachers to become advocates for promoting active classrooms as well as quality elementary physical education programs

• Following public school compliance with state mandates for quality physical education.
Current projects

- Promoting the new HPE 301 book with Retta Evans
- Reviewing and offering follow up suggestions to the new Online LIFE course-first year ACCESS course.
- Implementing edTPA into UAB Method Courses-redesigning courses and key assessments for program. With the help of Dr. Mowling, we will pilot this new assessment program with our Spring 2017 Student Teachers.
Possible future opportunities and collaborators

• Work with Homewood City Schools Wellness Director to study impact of active classrooms on academic achievement. Explore low cost strategies for classroom activity. Future studies using funded equipment such as stand up desks, stability balls and seated bikes in the classroom.
Laura Forbes, Community Heath and Human Services

Summary of line of inquiry:

• Adolescent/young adult health concerns based on diverse topics.
• Initially a substance abuse prevention researcher among college students.
• Research line has expanded to a broader range of college student health concerns.
Current projects

- Alcohol Prevention and Education
- Human Papilloma Virus Vaccination uptake
Possible future opportunities and collaborators

• Open to mentoring faculty, involving students, and working collaboratively on scholarship projects.

• Not limited to my field of community health but multi-disciplinary projects as my education and experiences are diverse.
Summary of line of inquiry:

- **Education finance**
  - District level revenues and expenditures
  - School district debt (bond issues, bond referenda)

- **Education policy**
  - Charter schools
  - Issues pertaining to rural schools

- **Econometrics and quantitative research methods**
Current Projects

- **Education finance**
  - Impact of charter schools on traditional public school revenues
  - Determinants of successful school district bond referenda

- **Education policy**
  - Charter school locations
  - School principal mobility patterns in rural areas

- **Econometrics and research methods**
  - Visualizing quantitative data (mapping and GIS)
  - Theoretical and empirical p-value distributions
Possible future opportunities and collaborators

Looking for

• Social media use within and across schools and districts
• Education policies specific or unique to Alabama, including charter schools
• Statewide school and district data

Can contribute to

• Program evaluations, including financial analyses
• Quantitative methods—panel data or mapping
• Big data management