

DIVISION OF KINESIOLOGY AND HEALTH
FACULTY RESEARCH 2014-2015
[updated 5/20/15]

REFEREED JOURNAL ARTICLES

In Press

- Alphonsa, S., **Dai, B., Benham-Deal, T.B., & Zhu, Q.** (in press). Combined visual illusion effects on the perceived index of difficulty and movement outcomes in discrete and continuous Fitts' tapping. *Psychological Research*.
- Garn, A.C., & **Wallhead, T.** (in press). Social goals and basic psychological needs in high school physical education. *Sport, Exercise and Performance Psychology*.
- Gaudreault, K.L.,** Cluphf, D., Russell, J., & LeCheminant, J. (in press). The effects of varying team sizes on physical activity levels of college students. *The Physical Educator*.
- Gaudreault, K.L.,** & Woods, A. (in press). A veteran physical educator: Factors leading to career frustration and exit. *Journal of Physical Education and Sport Management*.
- Hastie, P., & **Wallhead, T.L.** (in press). Operationalizing physical literacy through Sport Education. *Journal of Sport and Health Science*.
- Kirby, S., **Byra, M., Readdy, T., & Wallhead, T.L.** (in press). The effect of the practice and inclusion teaching styles on basic psychological needs satisfaction and self-determined motivation. *European Physical Education Review*.
- Readdy, T., & Wallhead, T.L.** (in press). Manifestation of anti-fat bias in pre-service physical education teachers. *The Physical educator*.
- Richards, K.A., & **Gaudreault, K.L.** (in press). Understanding the realities of teaching: A seminar series focused on induction. *Journal of Physical Education, Recreation, and Dance*.
- Stephenson, M.L., **Smith, D.T.,** Heinbaugh, E.M., Moynes, R.C., Rockey, S.S., Thomas, J.J. & **Dai, B.** (in press). Total and lower extremity lean mass percentage positively correlates with jump performance. *Journal of Strength and Conditioning Research*.
- Tong, C., Morrison, A., Mattison, S., Qian, S., Bryniarski, M., Wang, J., **Thomas, D.P.,** & Li, J. (in press). Impaired SIRT1 nucleocytoplasmic shuttling in the senescent heart in response to ischemic stress. *Journal of Federation of American Societies for Experimental Biolog.*
- Wilson, M.A., **Dai, B., Zhu, Q.,** & Humphrey, N. (in press). Trunk muscle activation and estimated spinal compressive force in rope and harness vertical dance. *Journal of Dance Medicine and Science*.
- Zhu, Q.,** & Bingham, G.P. (in press). Seeing where the stone is thrown by observing a point-light thrower: Perceiving the effect of action is enabled by information not motor experience. *Ecological Psychology*.

2015

- Dai, B.,** Garrett, W.E., Gross, M.T., Padua, D.A., Queen, R.M., & Yu, B. (2015). The effects of 2 landing techniques on knee kinematics, kinetics, and performance during stop-jump and side-cutting tasks. *American Journal of Sports Medicine*, 43, 466-474.

- Li, Y., Wang, X., Chen, X., & **Dai, B.** (2015). Exploratory factor analysis of the functional movement screen in elite athletes. *Journal of Sport Science*, 33, 1166-1172.
- Ren, J., Huang, S.C., Zhang, J.C., **Zhu, Q.**, Wilson, A.D., Snapp-Childs, W., & Bingham, G.P. (2015) The 50's cliff: A decline in perceptuo-motor learning, not a deficit in visual motion perception. *PLoS ONE* 10(4): e0121708.

2014

- Butler, R.J., **Dai, B.**, Garrett, W.E., & Queen, R.M. (2014). Changes in landing mechanics in patients following ACL reconstruction when wearing an extension constraint knee brace. *Sports Health*, 6, 203-209.
- Byra, M.**, Sanchez, B., & **Wallhead, T.** (2014). Behaviors of students and teachers in the command, practice, and inclusion styles of teaching: Instruction, feedback, and activity level. *European Physical Education Review*, 20, 3-19.
- Dai, B.**, Butler, R.J., Garrett, W.E., & Queen, R.M. (2014). Using ground reaction force to predict knee asymmetry following ACL reconstruction. *Scandinavian Journal of Medicine & Science in Sports*, 24, 974-981.
- Dai, B.**, Heinbaugh, E.M., Ning, X., & **Zhu, Q.** (2014). A resistance band increased internal hip abduction moments and gluteus medius activation during pre-landing and early-landing. *Journal of Biomechanics*, 47, 3674-3680.
- Dai, B.**, Mao, D., Garrett, W.E., & Yu, B. (2014). Anterior cruciate ligament injuries in soccer: loading mechanisms, risk factors, and prevention programs. *Journal of Sport and Health Science*, 3, 299-306.
- Gaudreault, K.L.** (2014). "Cool PE" and confronting negative stereotypes of physical education. *Strategies*, 27(3), 32-35.
- Guseman, E.H.**, Eisenmann, J.C., Scott, D., Hanba, C., & Atlas, A.B. (2014). Objectively measured sleep patterns in obese youth. *Journal of Behavioral Health*, 3, 156-160.
- Hastie, P.A., Sinelnikov, O., **Wallhead, T.L.**, & Layne, T. (2014). Perceived and actual motivational climate of a mastery-involving Sport Education season. *European Physical Education Review*, 20, 215-228.
- Ingersoll, C., **Gaudreault, K.L.**, & **Jenkins, J.M.** (2014). There is no lack of people to go to for support: Policy, community, and individual influences on one pre-service teacher's knowledge development. *Global Journal of Health and Physical Education Pedagogy*, 3, 30-46.
- Ingersoll, C., **Jenkins, J.M.**, & **Lux, K.** (2014). Knowledge development in early field teaching experiences. *Journal of Teaching in Physical Education*, 33, 363-382.
- Jenkins, J.M.** (2014). Pre-service teacher observations of experienced teachers. *The Physical Educator*, 71(2), 302-318.
- Kelting, T., **Jenkins, J. M.**, & **Lux Gaudreault, K.** (2014). I could really focus on the students. *Journal of Physical Education, Recreation, and Dance*, 85(8), 32-37.
- Long, N., **Readdy, T.**, & Raabe, J. (2014). What motivates firefighters to exercise? A mixed-methods investigation of self-determination theory constructs and exercise behavior. *Sport, Exercise, and Performance Psychology*, 3, 302-218.

- Ning, X., Zhou, J., **Dai, B.**, & Jaridi, M. (2014). The assessment of material handling strategies in dealing with sudden loading: the effects of load handling position on trunk biomechanics. *Applied Ergonomics*, *45*, 1399-1405.
- Porter, C.M.**, Herrera, H., Marshall, D., & Woodsum, G.M. (2014). Shared voices, different worlds: Process and product in the Food Dignity action research project. *Gateways: International Journal of Community Research and Engagement*, *7*(1), 116-128.
- Readdy, T.**, Raabe, J., & Harding, J. (2014). Student-athlete perceptions of an extrinsic reward program: A mixed-methods exploration of self-determination theory in the context of college football. *Journal of Applied Sport Psychology*, *26*, 157-161.
- Smith, D.T.**, Moynes, R.A., Rockey, S.S., Conviser, J., & Skinner, J.S. (2014). bioDensity™: A novel resistance training approach and learning effects in 1,685 males and 2,689 females. *Journal of Novel Physiotherapies*, *4*(3), 1-9.
- Tyser, J., Scott, W.D., **Readdy, T.**, & McCrea, S.M. (2014). The role of goal representations, cultural identity, and dispositional optimism in the depressive experiences of American Indian youth from a northern plains tribe. *Journal of Youth and Adolescence*, *43*, 329-342.
- Tucker, J.M., Eisenmann, J.C., Howard, K., **Guseman, E.H.**, Yee, K., Delafuente, K., Graybill, J., Roberts, M., Murphy, M., Saturley, H., & Peterson, T. (2014). FitKids360: Design, conduct, and outcomes of a stage 2 pediatric obesity program. *Journal of Obesity*. Advanced online publication. doi: 10.1155/2014/370403
- Wallhead, T.L.**, Garn, A., & Vidoni, C. (in press). Effects of a Sport Education program on motivation for physical education and leisure-time physical activity. *Research Quarterly for Exercise and Sport*, *84*, 478-487.
- Zhu, Q.**, & Bingham, G.P. (2014). Seeing where the stone is thrown by observing a point-light thrower: Perceiving the effect of action is enabled by information not motor experience. *Ecological Psychology*, *26*, 229-261.
- Zhu, Q.**, Mirich, T., & Bingham, G.P. (2014). Perception of relative throw-ability. *Experimental Brain Research*, *232*, 395-402.

REFEREED CHAPTERS IN BOOKS/SYMPOSIUM PROCEEDINGS

In Press

- McCullick, B.A., & **Lux, K.** (in press). Physical education. In A. Lee & T.G. Gilmour (Eds.), *Introduction to physical education, exercise science, and recreation*. Beijing: Higher Education Press.

2014

- Porter, C.M.**, & Redmond, L. (2014). Labor and leadership: Women in US community food organizing. In J. Page-Reeves (Ed.), *Women redefining the experience of food insecurity: Life off the edge of the table* (pp. 261-283). Lanham, MD: Lexington Books, Rowman & Littlefield Publishing Group.

RESEARCH GRANTS AND CONTRACTS SUBMITTED

- Porter, C.M.** [PI] (1/16-1/20). *Growing resilience; An RCT on the health impact of gardens with Wind River Indian Reservation*. NHLBI at the National Institutes of Health (NIH). Funding requested: \$2,471,321 direct plus \$698,093 indirect costs.
- Ulinki Banic, A., & Zhu, Q.** [Co-PI]. *Tele-physical pre-habilitation: Integrated systems of mixed reality, sensors, devices, robotics, and visualization to transform physical therapy care*. National Science Foundation (NSF). Funding Requested: \$1,913,755.
- Ulinki Banic, A., & Zhu, Q.** [Co-PI]. Predictive and suggestive cyber-human collaborated interaction techniques for volumetric data based on innate upper body motion and coordination. National Science Foundation (NSF). Funding Requested: \$2,099,371.
- Zhu, Q.** [PI]. (6/15-6/16). *Computer-joystick simulated bimanual training for functional recovery of upper limb after stroke*. Community Partners in Research Funding Program, Institute of Translational Health Sciences (ITHS), University of Washington, Seattle, WA. (funding \$13,000)

RESEARCH GRANTS AND CONTRACTS AWARDED

2014-2015

- Banic, A.** [PI], & **Zhu, Q.** [Co-PI] (07/14-06/15). *Use of natural and coordinated two-handed motion to improve gesture-based interaction design*. New Research Initiative Grant, Office of Research & Economic Development, University of Wyoming (funded \$25,000)
- Gaudreault, K.L.**, & Shiver, T. (5/14-8/14). *Graduate student summer research grant*. Office of Academic Affairs, University of Wyoming (funded \$5,000)
- Gaudreault, K.L.** (5/14-8/14). *USP 2015 COM2 course development mini-grant*. Ellbogen Center for Teaching and Learning, University of Wyoming (funded \$500)
- Guseman, E.H.** [PI], & Hackney, A.C. (07/14-06/15). *Adolescents' cortisol responses to acute exercise of varying intensities*. Faculty Grant-in-aid, University of Wyoming (funded \$7,500)
- Porter, C.M.** [PI/Project Director] with 25 academic and community-based co-investigators. (4/13-3/16). *Food Dignity: Action research on engaging food insecure communities and universities in building sustainable community food systems*. USDA/NIFA/AFRI Competitive Grant no. 2011-68004-30074 (funded \$2,987,226)
- Porter, C.M.**, & Spoonhunter, T. [Co-PI] (4/15-12/15). *Developing people and plans for biomedical research with Wind River Reservation*. University of Wyoming INBRE award supported by grants from the National Center for Research Resources (5P20RR016474-12) and the National Institute of General Medical Sciences (8 P20 GM103432-12) from the National Institutes for Health (funded \$15,000)
- Zhu, Q.** [PI]. (6/15-6/17). *Exploring specific and general transfer effects of perceptual-motor learning of coordination*. Shanghai Peak and High Plateau Disciplines Construction Grant: Phase I. Shanghai University of Sport, Shanghai Ministry of Education, China. (funded \$20,000)

Zhu, Q. [PI]. (12/14-6/15). *Task-specific bimanual training to improve upper limb function post stroke*. Mountain West IDEa Clinical Translational Research Infrastructure Network (CTR-IN). University of Nevada, Las Vegas. (funded \$10.980)

NATIONAL AND INTERNATIONAL PRESENTATIONS

2015

Zhu, Q., Dahill, A., Tryon, D., **Dai, B.**, & Lu, J. (2015, June). *The influence of musical training on lifting bottles of unknown weights*. Poster to be presented at the NASPSPA Conference, Portland, OR.

Huang, S.C., Ren, J., Zhang, J., Bingham, G., & **Zhu, Q.** (2015, June). *Haptic information is more reliable than visual information in learning a novel pattern of bimanual coordination*. Oral paper to be presented at the NASPSPA Conference, Portland, OR.

2014

Alphonsa, S., & **Zhu, Q.** (2014, June). *The differential effect of the perceived index of difficulty on the movement outcomes of discrete and continuous tapping*. Oral paper presented at the NASPSPA Conference, Minneapolis, MN.

Benham-Deal, T., & Deal, L. (2014, April). *Transforming health education for 21st century learners*. Oral paper presented at the annual American Alliance for Health, Physical Education, Recreation, and Dance Convention, St. Louis, MO.

Benham-Deal, T., Hudson, N., & Klarenbeek, S. (2014, April). *HEAP - Gateway to 21st century learning in health education*. Half-day in depth session at the annual American Alliance for Health, Physical Education, Recreation, and Dance Convention, St. Louis, MO.

Dai, B., Stephenson, M.L., Ellis, S.M., Donohue, M.R., & **Zhu, Q.** (2014, June). *Landing training with concurrent tactile feedback increased maximum knee flexion and decreases impact forces*. Oral paper presented at International Society of Biomechanics in Sport Meeting. Johnson City, TN.

Dai, B., Stephenson, M.L., Heinbaugh, E.M., Moynes, R.C., Rockey, S.S., Thomas, J.J., & **Smith, D.T.** (2014, June). *Lower extremity lean mass asymmetry correlated with force and power asymmetry during jumping in adults*. Oral paper presented at International Society of Biomechanics in Sport Meeting. Johnson City, TN, 2014.

Dai, B., **Zhu, Q.**, Ning, X., & Leigh, S. (2014, July). *Video-based motion capture to calculate 3D knee kinematics and kinetics during landing*. Poster presented at World Congress of Biomechanics. Boston, MA, 2014.

Dyson, B., **Wallhead, T.**, Harvey, S. Casey, A., Goodyear, V., Sutherland, S., & Kirk, D. (2014, April). *The future of research on models-based practice in physical education*. Invited symposium presented at American Educational Research Association Special Interest Group Research on Learning and Instruction in Physical Education Invisible College, Philadelphia, PA.

- Garn, A.C., & **Wallhead, T.** (2014, April). *Social goals and basic psychological needs in high school physical education: A prospective study*. Oral paper presented at the annual American Educational Research Association, Philadelphia, PA.
- Gaudreault, K.L.** (2014, April). *Perceived mattering of K-12 physical educators*. Oral paper presented at the annual American Alliance for Health, Physical Education, Recreation, and Dance Convention, St. Louis, MO.
- Graber, K., Woods, A., Gentry, C., McLoughlin, G., & **Gaudreault, K.L.** (2014, February). *Leadership strategies of teachers of the year: Maintaining relevance when marginality is the norm*. Poster presented at the AIESEP International Conference, Auckland, New Zealand.
- Guseman, E.H.**, Eisenmann, J.C., Laurson, K., Cook, S.R., & Stratbucker, W. (August, 2014). *On the calculation of a continuous metabolic syndrome score using nationally representative reference values rather than sample-specific values: an example using obese adolescents*. Oral paper presented the Biennial Conference of the North American Society for Pediatric Exercise Medicine,
- Kelting, T., **Jenkins, J.M.**, & Lux, K. (April, 2014). *Seeing is believing: Clinical supervision*. Poster presented at the National AAHPERD Conference, St. Louis.
- King, S. & **Readdy, T.** (October, 2014). *Athlete and coach perceptions of basic psychological needs fulfillment: A qualitative exploration of self-determination theory*. Oral paper presented at the 29th annual conference of the Association for Applied Sport Psychology, Las Vegas, NV.
- Mirich, T., **Zhu, Q.**, Wilson, A.D., & Bingham, G.P. (2014, June). *Learning of novel coordination patterns is information mode specific and vision dominates*. Poster presented at the NASPSPA Conference, Minneapolis, MN.
- Moynes, R.C., Rockey, S.S., Conviser, J., Skinner, J.S., & **Smith, D.T.** June, 2014). *High-intensity bioDensity training: 24-week health and fitness changes in middle-aged adults*. Oral paper presented at the annual American College of Sports Medicine Conference, Orlando FL.
- Porter, C.M.**, Herrera, H., Peters, S.J., Sequeira, E.J., & Woodsum, G.M. (2014, April). *Will work for Food Dignity: Striving for equity in our action research relations*. 90-minute story session presented at the Community-Campus Partnerships for Health, Chicago, IL.
- Porter, C.M.**, Breland-Noble, J., Brown, J., & Thomas, L.R. (2014, April). *Establishing an academic agenda for creating equitable research partnerships*. Roundtable presentation at the Community-Campus Partnerships for Health, Chicago.
- Porter, C.M.**, & Woodsum, G.M. (2014, November). *Let us count the ways: How CBPR leads to more rigorous research*. Oral paper presented at the American Public Health Association Annual Meeting, New Orleans, LA.
- Queen, R.M., Butler, R.J., Carpenter, A.L., **Dai, B.**, & Garrett, W.E. (2014, March). *Changes in landing mechanics between 6 and 12 months following ACL reconstruction when using a functional knee brace*. Poster presented at the annual meeting of the Orthopaedic Research Society, New Orleans, LA.
- Raabe, J., Zakrajsek, R.A., **Readdy, T.**, Bass, A., & Julbert, M. (October, 2014). *The influence of teammates on collegiate swimmers' perceptions of their basic psychological needs: An investigation into effective team environments*. Poster

- presentation at the 29th annual conference of the Association for Applied Sport Psychology, Las Vegas, NV.
- Readdy, T., & Wallhead, T.** (2014, April). *Anti-fat bias of pre-service physical education teachers*. Oral paper presented at the annual AAHPERD Convention, St. Louis, MO.
- Readdy, T., Zakrajsek, R.A., Raabe, J., & King, S.** (October, 2014). *Real-world experiences of the coaching pathos: Orchestration of elite sport*. Oral paper presented at the 29th annual conference of the Association for Applied Sport Psychology, Las Vegas, NV.
- Skinner, J.S., **Smith, D.T.**, Rockey, S.S., Moynes, R.A., & Conviser, J. (June, 2014). *Strength changes in male and females completing 8-24 sessions of high-intensity training once a week*. Oral paper presented at the annual American College of Sports Medicine Conference, Orlando FL.
- Stephenson, M.L., **Smith, D.T.**, Heinbaugh, E.M., Moynes, R.C., Rockey, S.S, Thomas, J.J. & **Dai, B.** (2014, June). Total and lower extremity lean mass percentage positively correlates with jump performance. Oral paper presented at International Society of Biomechanics in Sport Meeting. Johnson City, TN, 2014.
- Wallhead, T., & Hastie, P.** (2014, February). *Sport Education: Current knowledge and future directions*. Oral symposium presented at the AIESEP International Conference, Auckland, New Zealand.
- Woods, A., Graber, K., Gentry, C., & **Gaudreault, K.L.** (2014, February). *Curricular belief systems of national physical education teachers of the year*. Poster presented at the AIESEP International Conference, Auckland, New Zealand.
- Zakrajsek, R.A., **Readdy, T.**, & Raabe, J. (2014, April). *Coaching strategies for enhancing self-determined motivation, enjoyment, and success*. Workshop presented at the annual American Alliance for Health, Physical Education, Recreation, and Dance Convention, St. Louis, MO.
- Zhou, J., Ning, X., Nimbarte, A.D., & **Dai, B.**(2014, July). *The effect of load holding height on trunk biomechanics during sudden loading*. Oral paper to be presented at the International Meeting of the Human Factors and Ergonomics Society, Chicago, IL.
- Zhu, Q.**, Huang,S.C., Ren, J., Zhang, J.C., Wilson, A.D., Snap-Childs, W., & Bingham, G.P. (2014, June). *Older adults exhibit impaired perceptuo-motor learning of novel coordination patterns and it is not just poor visual motion perception*. Poster presented at the NASPSA Conference, Minneapolis, MN.