

CURRICULUM VITAE

Jeffrey D. Eggleston, Ph.D.

Department of Kinesiology
The University of Texas at El Paso
Office: 915-747-7208
Email: jdeggleston@utep.edu
ORCID-ID: 0000-0003-3194-8278

EDUCATION

University of Nevada, Las Vegas, Las Vegas, NV

Degree: *Doctor of Philosophy (Ph.D.) in Interdisciplinary Health Studies*; May 2018
Specialized Coursework in Biomechanics and Interdisciplinary Research Methods

Boise State University, Boise, ID

Degree: *Master of Science (M.S.) in Sport and Exercise Studies*; August 2014
Specialized Coursework in Biomechanics and Motor Learning

Western Oregon University, Monmouth, OR

Degree: *Bachelor of Science (B.S.) in Exercise Science*; June 2010
Specialized Coursework in Sport and Exercise Performance

ACADEMIC POSITIONS

The University of Texas at El Paso, El Paso, TX

2020-2023 *Director*, Interdisciplinary Health Sciences Doctoral Program, College of Health Sciences

2018-Present *Assistant Professor of Kinesiology*, Department of Kinesiology
Director – Stanley E. Fulton Gait Research & Applied Movement Analysis Laboratory, College of Health Sciences, Department of Kinesiology

2018 *Visiting Assistant Professor of Kinesiology*, Department of Kinesiology

University of Nevada, Las Vegas, Las Vegas, NV

2017 *Fellow*, Summer Doctoral Fellowship, UNLV Graduate College

2015-2018 *Doctoral Graduate Research/Teaching Assistant*, Department of Kinesiology and Nutrition Sciences

Boise State University, Boise, ID

2014-2015 *Adjunct Faculty*, Department of Kinesiology
Laboratory Manager/Research Assistant, Center for Orthopaedic & Biomechanics Research

2013-2014 *Graduate Assistant*, Department of Kinesiology

ACADEMIC POSITIONS

2023 College of Health Sciences Mentorship Award, College of Health Sciences, The University of Texas at El Paso

TEACHING EXPERIENCE

The University of Texas at El Paso, Department of Kinesiology

Graduate

BME 6194 Doctoral Research
CHSC 6303 Proseminar/Health Theories in Interdisciplinary Health Sciences I
CHSC 6304 Proseminar/Health Theories in Interdisciplinary Health Sciences II
CHSC 6307 Interdisciplinary Research in Health Sciences
CHSC 6350 Scientific and Grant Writing
KIN 5361 Biomechanical Basis of Sport
KIN 5374 Measurement Techniques in Biomechanics
KIN 5379 Graduate Research

Undergraduate

KIN 3331 Anatomical Kinesiology
KIN 4313 Biomechanics
KIN 4390 Independent Study
RSRC 4033 Undergraduate Research

University of Nevada, Las Vegas, Department of Kinesiology & Nutrition Sciences

Graduate

KIN 743 Research Techniques in Biomechanics

Undergraduate

KIN 346 Biomechanics
KIN 346L Biomechanics Laboratory
KIN 446 Sport and Exercise Biomechanics

Boise State University, Department of Kinesiology

Undergraduate

KIN 370 Biomechanics
KIN 371 Biomechanics Laboratory

FUNDING

Asterisk (*) denotes student

Ongoing Support

Dodson Research Grant, UTEP Graduate School

Project Title: Exploring aging using the selection, optimization, and compensation (SOC) framework paired with kinematic gait analysis in health young- and middle-aged adults: A multilevel modelling approach

Investigator(s): Emily A. Chavez*, **Jeffrey D. Eggleston**

Role: Mentor

Amount Awarded: \$3,000.00

Dodson Research Grant, UTEP Graduate School

Project Title: Comparative balance, gait initiation, and slip recovery between localized non-fatigued and fatigued conditions during simulated pregnancy

Investigator(s): Heather R. Vanderhoof*, **Jeffrey D. Eggleston**

Role: Mentor

Amount Awarded: \$3,000.00

Dodson Research Grant, UTEP Graduate School

Project Title: Retention effects of whole-body vibration training in children and adults with Cerebral Palsy

Investigator(s): Emily A. Chavez*, **Jeffrey D. Eggleston**

Role: Mentor

Amount Awarded: \$2,913.00

Intelligence Advanced Research Projects Activity-Biometric Recognition and Identification at Altitude and Range Broad Agency Announcement 20-04

Investigator(s): **Jeffrey D. Eggleston**

Role: Sub-contract PI

Subcontract Amount: \$599,980.00

Completed Support

College of Health Sciences Grants for Strategic Transformation Applied and Translational Research Fund

Project Title: Acute altitude exposures effects on cognition, muscle function, mobility, metabolism, and marksmanship: A translational study for improving field manuals and standard operating procedures for the modern warfighter

Investigator(s): Cory M. Smith, **Jeffrey D. Eggleston**

Role: Co-PI

Amount Awarded: \$7,408.00

Dodson Research Grant, UTEP Graduate School

Project Title: The effect of ankle braces on frontal plane knee angle and moment while performing specific sports movements.

Investigator(s): Christian N. Sanchez*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Awarded: \$2,200.00

Dodson Research Grant, UTEP Graduate School

Project Title: The influence of over-ground versus treadmill-based walking on gait mechanics in children with autism spectrum disorder

Investigator(s): Emily A. Chavez*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Awarded: \$2,430.00

College of Health Sciences – Applied and Translational Research Fund

Project Title: Neuromuscular electrical stimulation (E-Stim) – A novel strategy to improve insulin insensitivity

Investigator(s): Sudip Bajpeyi (PI), **Jeffrey D. Eggleston**, Jason B. Boyle, Sandor Dorgo, Harry J. Meeuwsen, Amy Wagler, Andrew McAinch, Jasmin Jenkins, Michelle Galvan, Manuel Gomez

Role: Co-I

Amount Awarded: \$7,500.00

University Research Institute Grant Program

Project Title: Quantification of accommodation strategies during gait in children with autism through weighted vest application: A pilot examination

Investigator: **Jeffrey D. Eggleston**

Role: PI

Amount Awarded: \$5,000.00

J. Edward Stern and Helen M.C. Stern Foundation

Project Title: Using live animation biofeedback to elicit changes in motoric response patterns in children with

Eggleston Vitae (updated: 12/18/2023)

autism spectrum disorder.

Investigator(s): **Jeffrey D. Eggleston**, Jason B. Boyle, Rhonda A. Manning, Harry J. Meeuwssen
Role: PI Amount Awarded: \$15,000.00

UNLV Graduate College, University of Nevada, Las Vegas

Project Title: Summer Doctoral Research Fellowship

Investigator(s): **Jeffrey D. Eggleston**

Role: PI Amount Awarded: \$7,000.00

Summer Graduate Research Award, School of Allied Health Sciences, University of Nevada, Las Vegas

Project Title: Examination of lower extremity function during load carriage in children with autism

Investigator(s): **Jeffrey D. Eggleston**, Janet S. Dufek

Role: PI Amount Awarded: \$1,500.00

Clinical Translational Research Infrastructure Network, National Institutes of General Medicine Sciences (U54 GM104944)

Project Title: Gait variability in children with autism spectrum disorder: A pilot study

Investigator(s): Janet S. Dufek (PI), **Jeffrey D. Eggleston**, Robbin A. Hickman, Gougen Shan

Role: Co-I Amount Awarded: \$21,353.00

Submitted Proposals

National Science Foundation NSF 23-614, Smart Health and Biomedical Research in the Era of Artificial Intelligence and Advanced Data Science (SCH)

Project Title: Collaborative research: SCH: Rehabilitation evaluation of neurologic motor disorders using wearable sensors and anomaly detection of high dimensional time series models

Investigator(s): Wei Tang (NMSU PI); Ziwei Ma (Univ Tennessee Chattanooga PI), **Jeffrey D. Eggleston** (UTEP PI), Fredy R. Mora Solis, Michelle L. Gutierrez, Mark Lawrence

Role: UTEP PI Amount to be requested: \$497,697.00

National Operating Committee on Standards for Athletic Equipment Small-Grant Program

Project Title: Non-contact lower extremity injuries: The standardization of shoe type dependent on field playing surface

Investigator(s): **Jeffrey D. Eggleston**, Katelyn E. Conroy*

Role: PI Amount Requested: \$49,000.00

Submissions in Progress

Department of Defense Congressionally Directed Medical Research Programs, Autism Research Program Idea Development Award

Project Title: Quantifying the limiting factors in neural load and motor performance for children with Autism during individual and group exercise play-based therapy

Investigator(s): Cory M. Smith, **Jeffrey D. Eggleston**

Role: Co-I Amount to be requested: \$864,640.00

National Institutes of Health PAR-21-231, NICHD Small Research Grant Program (R03)

Project Title: Improved gait function in individuals with Cerebral Palsy following whole-body vibration training

Investigator(s): **Jeffrey D. Eggleston**, Cory M. Smith

Role: PI Amount to be requested: Undecided

Not Funded Support

National Institutes of Health PAR-20-310, Health Services Research on Minority Health and Health Disparities (R01 - Clinical Trial Option)

Project title: Fall risk and burden during pregnancy

Investigator(s): Robert Catena (Washington State University), **Jeffrey D. Eggleston** (UTEP), Jenny Bagwell, Kate Havens (University of Southern California), Rita Deering (Carroll University), Emily Little (Nurturely, Industry Partner), Sheghai Dai (Washington State University)

Role: Co-I

Total Amount Requested: \$2,351,107.00

Sub-award Amount Requested: \$180,964.00

Dodson Research Grant, UTEP Graduate School

Project Title: The physiological effects of acute and ramp hypoxic exposure during simulated flight task

Investigator(s): Jasmin R. Jenkins*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Awarded: \$3,000.00

Dodson Research Grant, UTEP Graduate School

Project Title: Effect of an 8-week Vinyasa yoga movement training program for dynamic balance, range of motion, and functional movement

Investigator(s): Brittaney R. Huskey*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Awarded: \$2,260.00

Center for Smart Use of Technologies to Assess Real World Outcomes, 2023 Pilot Project Program

Project title: The validation of 2D video analysis on gait and running kinematics on the Alter-G treadmill

Investigator(s): **Jeffrey D. Eggleston**, Camila Torriani Pasin, Andrew Ure, Katelyn E. Conroy*

Role: PI

Foundation for Women's Wellness Research Grant

Project Title: Foot morphology and pressure distribution during stair walking in pregnant women

Investigator(s): **Jeffrey D. Eggleston**, Heather R. Vanderhoof*, Katelyn E. Conroy*

Role: PI

Amount Requested: \$25,000.00

Centers for Disease Control and Prevention, PAR-18-812

Project Title: Longitudinal change in fall risk for pregnant women

Investigator(s): Robert Catena, Shenghai Dai, Jia-Hua Lin, Ed Harvey, **Jeffrey D. Eggleston**, Brian French

Role: Sub-awardee PI

Sub-award Amount: \$191,314.00

80JSC020N0001-OMNIBUS1:2020 HERO Appendix B: NASA Human Research Program Omnibus Opportunity

Project Title: Determining a sustainable work capacity for astronauts in lunar and martian environments

Investigator(s): Cory M. Smith, **Jeffrey D. Eggleston**, Joel T. Cramer

Role: Co-I

Amount Requested: \$150,000.00

80JSC020N0001-OMNIBUS1:2020 HERO Appendix B: NASA Human Research Program Omnibus Opportunity

Project Title: Optimal astronaut and spacesuit weight for sustained work on future Mars missions

Investigator(s): Cory M. Smith, **Jeffrey D. Eggleston**, Owen F. Salmon*, Jasmin R. Jenkins*

Role: Co-I

Amount Requested: \$150,000.00

National Institutes of Health, PAR-16-162

Project Title: Neural correlates of motor preparation and action in children diagnosed with autism spectrum disorder.

Eggleston Vitae (updated: 12/18/2023)

Investigator(s): Jason B. Boyle, **Jeffrey D. Eggleston**, Rhonda A. Manning, Anita Bialunska, Angel Flores-Abad

Role: Co-PI

Amount Requested: \$151,000.00

Dodson Research Grant, UTEP Graduate School

Project Title: Retention of whole-body vibration training effects on ambulatory function in children with Cerebral Palsy

Investigator(s): Maria F. Gutierrez*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$2,505.00

College of Health Sciences Grants for Strategic Transformation Applied and Translational Research Fund

Project Title: Does whole-body vibration training in children with Cerebral Palsy result in lasting effects in gait and neuromuscular function?

Investigator(s): **Jeffrey D. Eggleston**, Cory M. Smith

Role: PI

Amount Requested: \$7,490.00

J. Edward Stern and Helen M.C. Stern Foundation

Project Title: Resistance training outcomes in children with autism: A feasibility study

Investigator(s): **Jeffrey D. Eggleston**, Cory M. Smith

Role: PI

Amount Requested: \$15,000.00

Organization for Autism Research, Applied Research Competition

Project Title: Improving happiness, health and coordination following a powerlifting program in adults with autism.

Investigator(s): **Jeffrey D. Eggleston**, Cory M. Smith, Emre Umucu

Role: PI

Amount Requested: \$40,000.00

American Society of Biomechanics Graduate Student Grant-In-Aid

Project Title: The effect of hippotherapy on gait and postural control in children with Autism Spectrum Disorder: A pilot study

Investigator(s): Patrick A. Cereceres*, Alyssa N. Olivas*, Emily A. Chavez*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$1,950.00

National Strength and Conditioning Association Foundation, NSCA Foundation Graduate Student Grant

Project Title: The effects of a land-based versus on-ice resisted sprint training program on measures of ice hockey performance in semi-professional male hockey players.

Investigator(s): Martin Dietze-Hermosa*, Sandor Dorgo, Cory M. Smith, Brian K. Schilling, **Jeffrey D. Eggleston**

Role: Co-I

Amount Requested: \$6,415.00

College of Health Sciences Grants for Strategic Transformation Applied and Translational Research Fund

Project Title: Walking uphill both ways: Understanding gait different differences during inclined and declined walking in children with Autism Spectrum Disorder

Investigator(s): **Jeffrey D. Eggleston**, Cory M. Smith

Role: PI

Amount Requested: \$6,945.00

Walter H. Hightower Foundation

Project Title: Assessing gait safety and feasibility of walking workstation implementation use in children with autism.

Investigator(s): **Jeffrey D. Eggleston**

Role: PI

Amount Requested: \$15,000.00

Edward Mallinckrodt, Jr. Foundation

Project Title: Quantification of neural activity with functional near-infrared spectroscopy and lower extremity mechanics during perturbed locomotor activities in children with autism spectrum disorder

Investigator(s): **Jeffrey D. Eggleston**, Jason B. Boyle

Role: PI

Amount Requested: \$180,000.00

Autism Speaks Pre-doctoral Fellowship Program

Project Title: Weighing in: Gait accommodation strategies in children with autism during weighted vest use

Investigator(s): Alyssa N. Olivas*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

National Institutes of Health PA-18-400, Research on Autism Spectrum Disorder (R21)

Project Title: Mechanisms of action of transcranial direct current stimulation to improve motor function during walking in adults with autism.

Investigator(s): John R. Harry, Wesley Dotson, Bracher J. Poston, **Jeffrey D. Eggleston**, Jaehoon Lee

Role: Co-PI

Amount Requested: \$274,613.00

Dodson Research Grant, UTEP Graduate School

Project Title: Balance and gait adaptations on stair mobility in pregnant and postpartum women

Investigator(s): Heather R. Vanderhoof*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$749.00

Sigma Xi Grants in Aid of Research

Project Title: Balance and gait adaptations on stair mobility in pregnant and postpartum women

Investigator(s): Heather R. Vanderhoof*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$673.00

Sigma Xi Grants in Aid of Research

Project Title: Effect of ankle braces on frontal plane knee angle and moment while performing specific sports movements

Investigator(s): Christian N. Sanchez*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$836.00

Dodson Research Proposal, Graduate School, University of Texas at El Paso

Project Title: Influence of arm swing and extremity-carried weights on gait mechanics in individuals with autism spectrum disorder

Investigator(s): Patrick A. Cereceres*, **Jeffrey D. Eggleston**

Role: Faculty Mentor

Amount Requested: \$3,000.00

DeLuca Foundation Research Scholarship

Project Title: Sensory integration and its role in neural plasticity in children diagnosed with autism spectrum disorder: An EMG study

Investigator(s): Clarissa Diaz (PI)*, Jason B. Boyle, **Jeffrey D. Eggleston**, Rhonda A. Manning, Deanna Kennedy

Role: Co-I

Amount Requested: \$14,995.00

Simons Foundation Autism Research Initiative – Explorer Award

Project Title: Non-invasive brain stimulation to improve motor function and mitigate behavioral symptoms in children with autism.

Investigator(s). John R. Harry (PI), **Jeffrey D. Eggleston**, Bracher J. Poston, Wesley Dotson

Role: Co-PI Amount Requested: \$79,619.00

Autism Research Program Idea Development Award, Department of Defense Health Program (W81XWH-18-ARP-IDA)

Project Title: The influence of sensory feedback mechanisms on task performance and motor pattern variability in children with autism

Investigator(s): **Jeffrey D. Eggleston**, Jason B. Boyle, John R. Harry, Rhonda A. Manning, Amy Wagler, Janet S. Dufek (mentor)

Role: PI Amount Requested: \$500,000.00

Organization for Autism Research – Applied Research Competition

Project Title: Application of non-invasive brain stimulation to improve fine and gross motor impairments in Hispanic children with autism spectrum disorder

Investigator(s): **Jeffrey D. Eggleston**, John R. Harry, Jason B. Boyle, Bracher, J. Poston

Role: PI Amount Requested: \$30,000.00

Thrasher Research Fund – Early Career Award Concept

Project Title: Non-invasive brain stimulation for the improvement of movement quality in children with autism

Investigator(s): John R. Harry (PI), Bracher J. Poston, **Jeffrey D. Eggleston**, Janet S. Dufek

Role: Consultant Amount Requested: \$26,750.00

Autism Research Program Idea Development Award, Department of Defense, Defense Health Program (W81XWH-17-APR-IDA)

Project Title: Examination of transcranial direct current stimulation as an intervention for mitigation of movement disorders in persons with autism

Investigator(s): Janet S. Dufek (PI), Bracher J. Poston, John R. Harry, Julie F. Beasley, Gougen Shan, **Jeffrey D. Eggleston**

Role: Consultant Amount Requested: \$500,000.00

Clinical Translational Research Infrastructure Network, National Institutes of General Medicine Sciences (U54 GM104944)

Project Title: Non-invasive brain stimulation to improve movement coordination in children with autism

Investigator(s): Bracher J. Poston (PI), Janet S. Dufek (mentor), Julia A. Freedman Silvernail, John R. Harry, **Jeffrey D. Eggleston**, Daniel Lidstone

Role: Co-I Amount Requested: \$60,000.00

Autism Research Program Idea Development Award, Department of Defense, Defense Health Program (W81XWH-16-APR-IDA)

Project Title: Movement variability during stair ascent and descent as a diagnostic tool for children with autism spectral disorder

Investigator(s): Janet S. Dufek (PI), Mohammed B. Trabia, Julia A. Freedman Silvernail, **Jeffrey D. Eggleston**, John R. Harry, Robbin A. Hickman, Gougen Shan

Role: Co-I Amount Requested: \$500,000.00

Organization for Autism Research – Applied Research Competition

Project Title: Load carriage in children with autism spectrum disorder: Establishing maximum load values

Investigator(s): Janet S. Dufek (PI), **Jeffrey D. Eggleston**, John R. Harry, Robbin A. Hickman

Role: Co-I

Amount Requested: \$30,000.00

Simons Foundation Autism Research Initiative – Explorer Award

Project Title: Gait variability in adults with autism: A diagnostic for continued care?.

Investigator(s): Janet S. Dufek (PI), Robbin A. Hickman, Julia A. Freedman Silvernail, Gougen Shan, **Jeffrey D. Eggleston**, John R. Harry

Role: Co-I

Amount Requested: \$58,546.00

Autism Speaks Suzanne and Bob Wright Trailblazer Award

Project Title: Variability in loaded and unloaded walking in children with autism: Implications of study design

Investigator(s): Janet S. Dufek (PI), **Jeffrey D. Eggleston**, John R. Harry, Robbin A. Hickman

Role: Co-I

Amount Requested: \$100,000.00

RESEARCH

IF = Impact factor during year of publication; **N/A** = Not Available; **Q** = quartile ranking during year of publication; Asterisk (*) denotes student

Published, In-Press, or Accepted Manuscripts

Steward, B.C., Dai, S, Havens, K.L., **Eggleston, J.D.**, Bagwell, J.J., Deering, R.E., Little, E.E., Catena, R.D. (2023). Determining fall risk change throughout pregnancy: The accuracy of postpartum survey and relationship to fall efficacy. *Ergonomics*. doi: 10.1080/00140139.2023.2296827. IF = 2.4; Q2

Scherrer, D.*, Nunley, B. *, **Eggleston, J.D.**, Harry, J.R. (2023). Deadlift biomechanics across multiple sets in resistance trained males. *International Journal of Strength and Conditioning*, 3(1). doi: [10.47206/ijsc.v3i1.233](https://doi.org/10.47206/ijsc.v3i1.233). IF = N/A, Q = N/A

Eggleston, J.D., Conroy, K.E. *, Moreno, A.G. *, Travis, W.J. *, Huskey, B.R. *, Vanderhoof, H.R. * (2023). The use of preferred footwear versus barefoot conditions in gait analysis: A methodological investigation. *Journal of Biomechanics*. doi: [10.1016/j.biomech.2023.111817](https://doi.org/10.1016/j.biomech.2023.111817). IF = 2.4; Q1.

Olivas, A.N. *, Kendall, M.R., Parada, A., Manning, R.A., **Eggleston, J.D.** (2022). Children with Autism display altered ankle strategies when changing speed during over-ground gait. *Clinical Biomechanics*, 100, 105804. doi: [10.1016/j.clinbiomech.2022.105804](https://doi.org/10.1016/j.clinbiomech.2022.105804). IF = 2.034, Q2

Olivas, A.N. *, Chavez, E.A. *, **Eggleston, J.D.** (2022). Weighted vest loads do not elicit changes in spatial-temporal gait parameters in children and adolescents with Autism. *Journal of Applied Biomechanics*, 38(6), 391-397. doi: [10.1123/jab.2021-0241](https://doi.org/10.1123/jab.2021-0241). IF = 1.606; Q2.

Vanderhoof, H.R. *, Chavez, E.A. *, **Eggleston, J.D.** (2022). Gait symmetry is unaffected when completing a motor dexterity task while using a walking workstation in healthy, young adults. *MDPI Biomechanics*, 2, 431-440. doi: [10.3390/biomechanics2030033](https://doi.org/10.3390/biomechanics2030033). IF = N/A; Q = N/A. Invited submission.

Saucedo, F., Chavez, E.A. *, Vanderhoof, H.R. *, Ambati, P., **Eggleston, J.D.** (2022). Effects of controlled whole-body vibration training on balance and fall outcomes among healthy older adults: A 6-week pilot study. *Journal of Aging Research & Lifestyle*, 10, 31-37. doi: [10.14283/jarlife.2022.6](https://doi.org/10.14283/jarlife.2022.6). IF = N/A; Q = N/A

Saucedo, F., Chavez, E.A.*, Vanderhoof, H.R.*, **Eggleston, J.D.** (2021). Effects of controlled whole-body vibration training on functional performance among healthy older adults: A 6-week pilot study. *Journal of Aging Research & Lifestyle*, 10, 39-44. doi: [10.14283/jarlife.2021.7](https://doi.org/10.14283/jarlife.2021.7). IF = N/A; Q – N/A

Eggleston, J.D., Olivas, A.N.*, Vanderhoof, H.R.*, Chavez, E.A.*, Alvarado, C., Boyle, J.B. (2021). Children with autism exhibit more individualized responses to live animation biofeedback compared to children with typical development. *Perceptual & Motor Skills*, 128(3), 1037-1058. PMID: 33663275 doi: [10.1177/0031512521998280](https://doi.org/10.1177/0031512521998280). IF = 1.049; Q4

Montalvo, S.*, Gonzalez, M.P.*, Dietze-Hermosa, M.*, **Eggleston, J.D.**, Dorgo, S. (2021). Common vertical jump and reactive strength index measuring devices: A validity and reliability analysis. *Journal of Strength and Conditioning Research*, 35(5), 1234-1243. PMID: 33629975 doi: [10.1519/JSC.0000000000003988](https://doi.org/10.1519/JSC.0000000000003988) IF = 3.02; Q1

Harry, J.R., **Eggleston, J.D.**, Dufek, J.S., James, C.R. (2021). Footwear alters performance and muscle activation during vertical jumping. *MDPI Biomechanics*, 1(1), 15-28. doi: [10.3390/biomechanics1010002](https://doi.org/10.3390/biomechanics1010002). IF = N/A; Q = N/A – Invited Submission

Eggleston, J.D., Harry, J.R., Cereceres, P.A.*, Olivas, A.N.*, Chavez, E.A.*, Boyle, J.B., Dufek, J.S. (2020). Lesser magnitudes of lower extremity variability during terminal swing characterizes walking patterns in children with autism. *Clinical Biomechanics*, 76C. PMID: 32408186 doi: [10.1016/j.clinbiomech.2020.105031](https://doi.org/10.1016/j.clinbiomech.2020.105031) IF = 1.98; Q1

Eggleston, J.D., Chavez, E.A.*, Harry, J.R., Dufek, J.S. (2019). Computer interactions during walking workstation use moderately affects spatial-temporal gait characteristics. *Gait & Posture*, 74, 200-204. PMID 31557663doi: [10.1016/j.gaitpost.2019.09.011](https://doi.org/10.1016/j.gaitpost.2019.09.011). IF = 2.41; Q2

Harry, J.R., **Eggleston, J.D.**, Lidstone, D., Dufek, J.S. (2019). Effects of a weighted vest on gait smoothness during walking in children with Autism Spectrum Disorder. *Translational Journal of the American College of Sports Medicine*, 4(10), 64-73, doi: [10.1249/TJX.0000000000000085](https://doi.org/10.1249/TJX.0000000000000085). IF = N/A; Q = N/A

Eggleston, J.D., Landers, M.R., Bates, B.T., Nagelhout, E., & Dufek, J.S. (2018). Weighted walking influences lower extremity coordination in children on the autism spectrum. *Perceptual and Motor Skills*, 125(6), 1103-1122. PMID: 30319016. doi: [10.1177/0031512518803178](https://doi.org/10.1177/0031512518803178). IF = 0.70; Q4

Eggleston, J.D., Harry, J.R., Dufek, J.S. (2018). Lower extremity joint stiffness during walking distinguishes children with and without autism. *Human Movement Science*, 62, 25-33. PMID 30218847 doi: [10.1016/j.humov.2018.09.003](https://doi.org/10.1016/j.humov.2018.09.003). IF = 1.84; Q2

Dufek, J. S., Harry, J. R., **Eggleston, J. D.**, Hickman, R. A. (2018). Walking mechanics and movement pattern variability in monozygotic twins with autism spectrum disorder. *Journal of Developmental and Physical Disabilities*, 5, 793-805 doi: [10.1007/s10882-018-9620-2](https://doi.org/10.1007/s10882-018-9620-2). IF = 1.30; Q2

Harry, J.R., Barker, L.A., **Eggleston, J.D.**, Dufek, J.S. (2018). Evaluating performance during maximal effort vertical jump landings. *Journal of Applied Biomechanics*, 34(5), 403-409. PMID: 29809083 doi: [10.11232/jab/2018-0172](https://doi.org/10.11232/jab/2018-0172). IF = 1.05; Q3

Harry, J.R., **Eggleston, J.D.**, Dunnick, D.D., Edwards, H.T., & Dufek, J.S. (2018). Effects of task difficulty on kinematics and task performance while using a walking workstation. *Translational Journal of the American College of Sports Medicine*, 3(11): 74-84. doi: [10.1249/TJX.0000000000000062](https://doi.org/10.1249/TJX.0000000000000062). IF = N/A; Q = N/A

Eggleston, J.D., Landers, M.R., Bates, B.T., Nagelhout, E., & Dufek, J.S. (2018). Examination of gait parameters during perturbed over-ground walking in children with autism spectrum disorder. *Research in Developmental Disabilities*, 74, 50-56. PMID: 29366924. doi: [10.1016/j.ridd.2018.01.004](https://doi.org/10.1016/j.ridd.2018.01.004). IF = 1.60; Q2

Dufek, J.S., Ryan-Wenger, N.A., **Eggleston, J.D.**, Mefferd, K. (2017). A novel approach to assessing head injury severity in pediatric patient falls. *Journal of Pediatric Healthcare*, 32(2), e59-e66. PMID: 29277473. doi: [10.1016/j.pedhc.2017.09.012](https://doi.org/10.1016/j.pedhc.2017.09.012). IF = 1.50; Q2

Eggleston, J. D., Harry, J. R., Hickman, R. A., Dufek, J. S. (2017). Analysis of gait symmetry during over-ground walking in children with autism spectrum disorder. *Gait and Posture*, 55, 162-166. PMID: 28458147. doi:[10.1016/j.gaitpost.2017.04.026](https://doi.org/10.1016/j.gaitpost.2017.04.026). IF = 2.40; Q1.

Dufek, J. S., **Eggleston, J. D.**, Harry, J. R., & Hickman, R. A. (2017). A comparative evaluation of gait between children with autism and typically developing matched controls. *Medical Sciences*, 5(1), 1-11. PMID: 29099017. doi:[10.3390/medsci5010001](https://doi.org/10.3390/medsci5010001). IF = N/A; Q = N/A

Bates, B. T., Dufek, J. S., James, C. R., Harry, J. R., & **Eggleston, J. D.** (2016). The influence of experimental design on the detection of performance differences. *Measurement in Physical Education and Exercise Science*, 20(4), 200-2007. doi: [10.1080/1091367X.2016.1198910](https://doi.org/10.1080/1091367X.2016.1198910). IF = 3.50; Q3.

Manuscripts Submitted or Under Review

Olivas, A.N.*, Kendall, M.R., Manning, R.A., **Eggleston, J.D.** (Revise and resubmit). Dynamic stability is not altered in various gait speeds in children with autism. *Gait & Posture*. IF = 2.746; Q1

Conroy, K.E.*, Vanderhoof, H.R.*, Travis, W.J.*, Moreno, A.G.*, **Eggleston, J.D.** Texting while walking does not influence lower extremity gait symmetry in young adults. Target Journal: *Human Movement Science*.

Manuscripts in Preparation

Chavez, E.A.*, Mueller, V.T., Morera, O.F., Fierro, C., **Eggleston, J.D.** Healthy young and middle-aged adults exhibit similar clustering and switching strategies during Verbal Fluency dual-task walking: exposing a disparity in middle-age research. Target Journal: Undefined.

Chavez, E.A.*, Mueller, V.T., Morera, O.F., Fierro, C., **Eggleston, J.D.** Unraveling gait variability in dual-task walking: A Comparative Analysis of short-form and long-form data techniques across healthy young, and middle-aged adults. Target Journal: *Undefined*.

Chavez, E.A.*, Morera, O.F., Mueller, V.T., Fierro, C., **Eggleston, J.D.** Comparing dual-task costs in verbal fluency tasks and gait performance between young and middle-aged adults: Implications for age groupings and functional similarities. Target Journal: *Journal of Aging and Health*.

Conroy, K.E.*, Vanderhoof, H.R.*, **Eggleston, J.D.** Age influences gait variability while texting and walking. Target Journal: *Journal of Applied Biomechanics*.

Conroy, K.E.*, Vanderhoof, H.R.*, **Eggleston, J.D.** The influence of aging on movement pattern variability during a reach-to-grasp task. Target Journal: *Journal of Applied Biomechanics*.

Conroy, K.E.*, Vanderhoof, H.R.*, Pasin-Torriani, C., Ure, A., **Eggleston, J.D.** Reliability and validity of 2-dimensional video analysis on the Alter-Gravity treadmill. Target Journal: *Clinical Biomechanics*.

Eggleston, J.D., Vanderhoof, H.R.*, Conroy, K.E.* Treadmill walking influences overground gait mechanics in children with Autism. Target Journal: *Human Movement Science*.

Eggleston, J.D., Conroy, K.E.* Retention of whole-body vibration training affects ambulatory function in individuals with Cerebral Palsy. Target Journal: *Clinical Biomechanics*.

Huskey, B.R.*, Vanderhoof, H.R.*, Conroy, K.E.*, **Eggleston, J.D.** The effects of ankle braces on frontal plane knee angle and moment while performing specific sports movements. Target Journal: *Journal of Applied Biomechanics*.

Moreno, A.G. *, Vanderhoof, H.R. *, Chavez, E.A. *, **Eggleston, J.D.** The effect of hands-on and off a walking workstation on gait characteristics. Target Journal: *Journal of Applied Biomechanics*.

Vanderhoof, H.R. *, Conroy, K.E. *, Travis, W.J. *, **Eggleston, J.D.**, Stair strategies in young and middle-aged adults while performing a cognitive dual-task. Target Journal: *Journal of Applied Biomechanics*.

Vanderhoof, H.R. *, Conroy, K.E. *, Huskey, B.R. *, **Eggleston, J.D.**, Dynamic balance control: Is there a connection between performance in static and dynamic tasks. Target Journal: *Journal of Applied Biomechanics*.

Vanderhoof, H.R. *, Conroy, K.E. *, **Eggleston, J.D.**, Gait analyses of lower extremity kinematics and upper extremity muscle activity during dog walking in pet handlers. Target Journal: *Journal of Applied Biomechanics*.

Vanderhoof, H.R. *, **Eggleston, J.D.**, Comparing lower extremity joint kinematics during stair location in pregnant, postpartum, and non-pregnant women. Target Journal: *Clinical Biomechanics*.

Vanderhoof, H.R. *, Conroy, K.E. *, **Eggleston, J.D.** Differences in lower extremity frontal plane kinematics between children with Autism Spectrum Disorder and children with typical development: Target Journal: *Human Movement Science*.

Conference Proceedings

Vanderhoof, H.R. *, **Eggleston, J.D.** (2023). Simulated pregnancy on center of pressure sway direction during gait initiation in healthy females. Mid-South Biomechanics Conference, University of Memphis, Memphis, TN.

Moreno, A.G. *, Vanderhoof, H.R. *, Chavez, E.A. *, **Eggleston, J.D.** (2023). The effect of hands on and off a walking workstation on gait characteristics. Mid-South Biomechanics Conference, University of Memphis, Memphis, TN.

Chavez, E.A. *, Olivas, A.N. *, **Eggleston, J.D.** (2021). Gait variability during treadmill walking in children with autism spectrum disorder. American Society of Biomechanics, 45th Annual Meeting (Virtual).

Olivas, A.N. *, Chavez, E.A. *, **Eggleston, J.D.** (2021). Super Newtonian strategies adopted by children with autism spectrum disorder. Submitted for review. American Society of Biomechanics, 45th Annual Meeting (Virtual).

Olivas, A.N. *, Chavez, E.A. *, **Eggleston, J.D.** (2021). Load accommodation strategies in children with autism. University of Massachusetts Lowell Movement (UMOVE) Center Student Research Symposium. Virtual Podium Presentation.

Chavez, E.A. *, Olivas, A.N. *, Cereceres, P.A. *, Quintero, P. *, **Eggleston, J.D.** (2020). Treadmill walking does not elicit increased tripping risks in children with autism. Poster Presentation. American Society of

Eggleston Vitae (updated: 12/18/2023)

Biomechanics Annual Meeting, Atlanta, GA, USA.

Eggleston, J.D., Olivas, A.N.*, Chavez, E.A.*, Vanderhoof, H.R.*, Boyle, J.B., Alvarado, C. (2020). Live animation biofeedback responses between children with autism and children with typical development. Poster Presentation. American Society of Biomechanics Annual Meeting, Atlanta, GA, USA.

Olivas, A.N.*, Chavez, E.A.*, Cereceres, P.A.*, **Eggleston, J.D.** (2020). Responses to incremental loads in a weighted vest in children with autism spectrum disorder. Poster Presentation. American Society of Biomechanics Annual Meeting, Atlanta, GA, USA.

Sanchez, C.N.*, **Eggleston, J.D.** (2020). Prophylactic ankle braces did not elicit changes associated with injury or compromise performance in sports specific movements. Poster Presentation. American Society of Biomechanics Annual Meeting, Atlanta, GA, USA.

Tovar, B.*, Vanderhoof, H.R.*, **Eggleston, J.D.** (2020). The effect of advancing pregnancy on postural sway velocity in bilateral and unilateral standing. Poster Presentation. American Society of Biomechanics Annual Meeting, Atlanta, GA, USA.

Vanderhoof, H.R.*, Sanchez, C.N.*, **Eggleston, J.D.** (2020). Advancing stages of pregnancy on postural sway area in healthy females. Podium presentation. Mid-South Biomechanics Conference. Memphis, TN, USA.

Aure, M.*, Barker, L.A., **Eggleston, J.D.** (2019). Relationship between frontal kinematics and landing mechanics in a rebound jump. Podium presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Cereceres, P.A.*, Olivas, A.N.*, Harry, J.R., Dufek, J.S., **Eggleston, J.D.** (2019). Quantifying gait variability among children with autism spectrum disorder. Podium presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Chavez, E.A.*, Vanderhoof, H.R.*, Sanchez, C.N.*, Harry, J.R., Dufek, J.S., **Eggleston, J.D.** (2019). Walking while working: The effect of walking workstation use on tripping kinematics. Poster presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Eggleston, J.D., Harry, J.R., Chavez, E.A.*, Cereceres, P.A.*, Vanderhoof, H.R.*, Olivas, A.N.*, Dufek, J.S. (2019). Coordination variability and autism: A potential descriptor for movement impairment?. Poster presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Olivas, A.N.*, Chavez, E.A.*, Harry, J.R., Dufek, J.S. **Eggleston, J.D.** (2019). Weighted vest effects on stride parameter variability in children with autism spectrum disorder. Poster presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Quintero, P.*, Orozco, M.*, Chavez, E.A.*, Vanderhoof, H.R.*, Sanchez, C.N.*, Harry, J.R., Dufek, J.S., **Eggleston, J.D.** (2019). Poster presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Sanchez, C.N.*, Vanderhoof, H.R.*, Aure, A.*, Barker, L.A. **Eggleston, J.D.** Effect of ankle braces on frontal plane knee angle and moment and vertical jump performance. Poster presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Vanderhoof, H.R.*, Sanchez, C.N.*, Aure, M.*, Barker, L.A., **Eggleston, J.D.** Brace yourself: Impact of prophylactic ankle brace during a rebound jump. Podium presentation, International Society of Biomechanics Annual Meeting, Calgary, CN.

Lidstone, D., **Eggleston, J.D.**, Dufek, J.S. (2018). Effect of visual rhythmic cueing and visual feedback on motor control in children with autism. Poster presentation, American Society of Biomechanics Annual Meeting, Rochester, MN.

Eggleston, J.D., Flores, L., Mamauag, M., Lidstone, D.E., Harry, J.R., Dufek, J.S. (2017). Influence of a weighted backpack and weighted vest on gait kinematics in children with autism spectrum disorder. Poster presentation, Northwest Biomechanics Symposium, Eugene, OR.

Flores, L.A., **Eggleston, J.D.**, Mamauag, M., Lidstone, D.E., Dufek, J.S. (2017). Effects of load carriage on lower extremity joint patterns in children with autism spectrum disorder. Podium Presentation, Northwest Biomechanics Symposium, Eugene, OR.

Mamauag, M., **Eggleston, J.D.**, Flores, L.A., Dufek, J.S. (2017). Examining the influence of backpack weight on stride kinematics among children with autism spectrum disorder. Poster Presentation, Northwest Biomechanics Symposium, Eugene, OR.

Dufek, J.S., **Eggleston, J.D.**, Harry, J.R. (2017). Movement differences between children with autism and children with typical development: Evidence for evaluating the individual before the group. Poster presentation, Gait and Clinical Movement Analysis Society Annual Meeting, Salt Lake City, UT.

Alley, C.J., **Eggleston, J.D.**, Radzak, K.R. (2017). Stride leg ground reaction forces pre-and post-fatigue in collegiate baseball pitchers. Poster presentation, Far West Athletic Trainers' Association Annual Meeting and Clinical Symposium, Las Vegas, NV.

Eggleston, J.D., Harry, J.R., Hickman, R.A., Dufek, J.S. (2016). Evaluation of gait symmetry in children with autism spectrum disorder. Poster presentation, American Society of Biomechanics Annual Conference, Raleigh, NC.

Harry, J.R., **Eggleston, J.D.**, Hickman, R.A., Dufek, J.S. (2016). Walking mechanics and within-subject variability in monozygotic twins with autism spectrum disorder. Poster presentation, American Society of Biomechanics Annual Conference, Raleigh, NC.

Dufek, J.S., Harry, J.R., **Eggleston, J.D.**, Bates, B.T. (2016). A novel data analysis approach for identification of performance differences during locomotion. Poster presentation, Gait and Clinical Movement Analysis Annual Conference, Memphis, TN.

Eggleston, J. D., Harry, J. R., Hickman, R. A., Dufek, J. S. (2015). A comparative evaluation of gait between children with autism and typically developing matched controls: Insight gained via single subject design. Poster Presentation, Southwest Chapter of the American College of Sports Medicine, Costa Mesa, CA.

Dugan, E.L., Combs-Miller, S.A., **Eggleston, J.D.**, Masterson, C.M., Berlin C.M. (2015). Complexity of gait post stroke. Poster Presentation, American Society of Biomechanics Annual Conference, Columbus, OH.

Eggleston, J. D., Dugan, E. L., Petranek, L. (2014). The effect of attentional focus instruction on golf swing performance in recreational golfers. Poster presentation, Rocky Mountain Regional American Society of Biomechanics Conference, Estes Park, CO.

Eggleston Vitae (updated: 12/18/2023)

Eggleston, J. D., Jones, J. R., & Armstrong, W. J. (2010). Wireless e-technology accelerometry in the measurement of mechanomyography. Poster presentation, National Conference on Undergraduate Research, Missoula, MT.

Jones, J. R., **Eggleston, J. D.**, & Armstrong, W. J. (2010). Anthropometric measures for sensor placement in e-textile based mechanomyography. Poster presentation, National Conference on Undergraduate Research, Missoula, MT.

University Conferences

Cayme, J.J.*, Conroy, K.E.*, **Eggleston, J.D.** (2023). Assessment of gait function during the texting-walking dual task in young adults. Poster Presentation. COURI Symposium, The University of Texas at El Paso

Olivas, A.N.*, Chavez, E.A.*, Harry, J.R., Dufek, J.S., **Eggleston, J.D.** (2019). Weighted vest effects on stride parameter variability in children with autism spectrum disorder. Podium Presentation. Graduate Research Expo, University of Texas at El Paso.

Eggleston, J.D. (2017). The autism movement: Understanding movement in autism. Podium Presentation, UNLV 3-Minute Thesis Competition, University of Nevada, Las Vegas.

Eggleston, J.D., Flores, L.A., Mamauag, M., Lidstone, D.E., Harry, J.R., Dufek, J.S. (2017). Influence of a weighted backpack and weighted vest on gait kinematics in children with autism spectrum disorder. Poster Presentation, UNLV Office of Undergraduate Research Research Week Gala, University of Nevada, Las Vegas.

Flores, L.A., **Eggleston, J.D.**, Mamauag, M., Lidstone, D.E., Dufek, J.S. (2017). Effects of load carriage on lower extremity joint patterns in children with autism spectrum disorder. Poster Presentation, Undergraduate Research Forum, University of Nevada, Las Vegas.

Eggleston, J.D., Harry, J.R., Dufek, J.S. (2017). Influence of a weighted backpack and weighted vest on gait kinematics in children with autism spectrum disorder. Poster Presentation, Graduate and Professional Student Association Research Forum, University of Nevada, Las Vegas.

Harry, J.R., **Eggleston, J.D.**, Hickman, R.A., Dufek, J.S. (2016). Walking mechanics and within subject variability between monozygotic twins with autism spectrum disorder. Poster presentation, Division of Health Sciences Interdisciplinary Research and Scholarship Day, University of Nevada, Las Vegas.

Eggleston, J.D., Harry, J.R., Hickman, R.A., Dufek, J.S. (2016). Evaluation of gait symmetry in children with autism spectrum disorder. Poster presentation, Division of Health Sciences Interdisciplinary Research and Scholarship Day, University of Nevada, Las Vegas.

Dufek, J.S., Harry, J.R., **Eggleston, J.D.**, Bates, B.T. (2016). A novel data analysis approach for identification of performance differences during locomotion. Poster presentation, Division of Health Sciences Interdisciplinary Research and Scholarship Day, University of Nevada, Las Vegas.

Turner, S.*, **Eggleston, J.D.** (2015). Comparison of shear forces in high-top and low-top basketball shoes during lateral cutting movement. Poster presentation, Undergraduate Research Conference, Boise State University.

Nesbitt, D.*, Szakacs, R.*, Mireles, A.*, **Eggleston, J.D.** (2015). The difference between genders in ground reaction forces during the back handspring. Poster presentation, Undergraduate Research Conference, Boise State University.

Abstracts

Hill, R. D., Amstrong, W. J., Stegenga, N. A., Forro, D., Bangert, K., **Eggleston, J. D.** (2010). Mechanomyography and H-reflex responses to electrical stimulation. *Medicine and Science in Sport and Exercise*, 42(5); S10.

Non-Peer-Reviewed Publications

Eggleston, J.D. New approaches to movement-related research in individuals with autism. *Autism Advocate Parenting Magazine*, July, 2022. Publication [link](#).

Sanchez, C.N.*, Smith, C.M., Harry, J.R., **Eggleston, J.D.** (2020). A full collegiate volleyball season does not influence jumping or landing performance in freshmen and sophomore players. doi: [10.13140/RG.2.2.22749.54247](https://doi.org/10.13140/RG.2.2.22749.54247)

Eggleston, J.D., Dufek, J.S. (2018). Autism linked to between-limb asymmetries across the gait cycle: Gait pattern ID could help target therapy. In *Lower Extremity Review: Pediatrics*. Publication [link](#).

SCHOLARLY AWARDS & HONORS

2023 College of Health Sciences Mentorship Award

2018 UNLV Graduate College Medallion Program recipient

2017 Graduate College and Graduate & Professional Student Association Annual Research Forum, Honorable Mention: Influence of a Weighted Backpack and Weighted Vest on Gait Kinematics in Children with Autism Spectrum Disorder (**Eggleston**, Flores, Mamauag, Lidstone, & Dufek).

2016 Interdisciplinary Research and Scholarship Day, Second Place Research Presentation: Evaluation of Gait Symmetry in Children with Autism Spectrum Disorder (**Eggleston**, Harry, Hickman, & Dufek).

Interdisciplinary Research and Scholarship Day, Third Place Research Presentation: A Novel Data Analysis Approach for Identification of Performance Differences During Locomotion (Dufek, Harry, **Eggleston**, & Bates).

INVITED PRESENTATIONS

Biomechanics: A lens into understanding motor manifestations of neurodevelopmental disorders. South Dakota State University – 11/22/2022

The Autism movement: How movement may help to understand the disorder. Washington State University Graduate Seminar – 09/24/2020; Boise State University Graduate Seminar – 10/16/2020

Bigfoot Biomechanics...maybe. University of Idaho Undergraduate Biomechanics course – 11/11/2020

Concepts of Linear Kinematics in Human Motion. Presented in KIN 346 – Biomechanics, University of Nevada, Las Vegas, 2017

Utilization of Cranial Remolding Helmets in Children. Presented in KIN 736 – Biomechanical Applications in Kinesiology, University of Nevada, Las Vegas, 2016

Eggleston Vitae (updated: 12/18/2023)

SERVICE

University of Texas at El Paso

University

2019 – 2020 Chair-Elect, Graduate Scholarship Committee
2019 – Present Performance Testing with UTEP Women’s Volleyball team
2018 Judge, Graduate Student Research Expo, Graduate School

College

2023 Annual Performance Evaluation Appeals Committee – Chair
2022 Annual Performance Evaluation Appeals Committee – Committee Member
2021 – Present Faculty Mentorship Sub-Committee, Faculty Development Committee, Co-Chair, College of Health Sciences
2021 – Present Faculty Development Committee, Committee Member, College of Health Sciences
2021 – 2022 College of Health Sciences Dean Search Committee, Committee Member
2020 – 2021 Speech Language Pathology Search Committee, Committee Member – Unsuccessful search
2020 Curriculum Revision Sub-committee, Interdisciplinary Health Science Doctoral Advisory Committee
2019 – 2020 Speech Language Pathology Search Committee (2), Committee Member – Unsuccessful searches
2019 – 2020 Research Strategic Plan Ad Hoc Committee Member
2019 – 2020 Member, Interdisciplinary Health Sciences Doctoral Program Advisory Committee, College of Health Sciences
2019 Member, College of Health Sciences Scholarship Committee
2018 – Present Faculty Advisor, Pre-Physical Therapy Association, Registered Student Organization
2018 – 2020 Member, Research Committee College of Health Sciences
2018 – 2020 Co-Lead, Awards and Seed/Bridge Funding Research Committee Sub-committee, College of Health Science

Department

2021 Academic Program Review
2021 Undergraduate Curriculum Steering Committee
2019 – Present Social Media Director
2019 – Present Masters of Kinesiology Graduate Curriculum Revision Committee

Community

2020 Session Judge, 3MT Rebel Grad Slam Competition, University of Nevada, Las Vegas
2020 Panelist, Strategies for surviving the thesis/dissertation process from recent graduates, Graduate School, University of Nevada, Las Vegas
2019 – Present Career & Technology Education Program Advisory Board Member, Socorro Independent School District
2019 National Biomechanics Day Participant, collaboration with Socorro Independent School District

University of Nevada, Las Vegas

Department, College/School, University

2018 Judge and Session Moderator, Office of Undergraduate Research, Undergraduate Research Conference
 2018 Student Representative, UNLV Graduate College, Washington D.C. Graduate Education Congressional Lobby
 2017 Judge, Office of Undergraduate Research, Research Undergrad SLAM
 2017 Panelist, Summer Research EXperience Workshop, UNLV

Professional

2021 – 2022 Great Plains IDeA Clinical and Translational Research Grant Reviewer
 2021 National Science Foundation, SBIR/STTR Phase II Review Panel
 2021 Session Co-Moderator, Pediatrics Podium session, Virtual 45th Meeting of the American Society of Biomechanics
 2021 Textbook Reviewer, Jones & Bartlett Learning – *Biomechanics: A case-based approach, 2nd Edition*, by S. Flanagan
 2020 Proposal Reviewer, *ENVISION by Women in STEM (WiSTEM)*
 2020 Textbook Reviewer, Springer Nature – *Fundamentals of Biomechanics, 3rd Edition*, by: D. Knudson
 2019 Co-chair, Oral presentation session, XXVII Congress of the International Society of Biomechanics/43rd Annual Meeting of the American Society of Biomechanics, Alberta, Calgary, Canada
 2017 – Present Abstract Reviewer, Gait and Clinical Movement Analysis Society Annual Meeting

Ad-Hoc Manuscript Reviewer

- Health Informatics
- Frontiers Bioengineering
- Focus on Autism and Other Development Disabilities
- Gait & Posture
- Journal of Biomechanics
- Infant Behavior and Development
- Journal of Physical Therapy
- Neuroscience Letters
- Neuropsychiatric Disease and Treatment
- MDPI Clinical Medicine
- Brain Sciences
- Human movement Science
- MPDI Safety
- Functional Morphology and Kinesiology
- Clinical Kinesiology
- PLOS One
- Perceptual and Motor Skills
- Journal of Sport and Health Science
- Journal of Autism and Developmental Disorders

Professional Memberships

2015 – Present Gait and Clinical Motion Analysis Society, Member
 2015 – Present American Society of Biomechanics, Member

Certifications

- 2021 Teaching Hybrid Academy, Center for Instructional Design, The University of Texas at El Paso
Teaching Online Academy, Center for Instructional Design, The University of Texas at El Paso
- 2018 Research Certificate, Graduate College, University of Nevada, Las Vegas, Las Vegas, NV
- 2017 Mentorship Certificate, Graduate College, University of Nevada, Las Vegas, Las Vegas, NV

STUDENT MENTORSHIP

University of Texas at El Paso

Doctoral Dissertation Committees

- Chavez, E.A. (Spring 2024). Exploring aging using the selection, optimization, and compensation (SOC) framework paired with kinematic gait analysis in health young- and middle-aged adults: A multilevel modelling approach. Committee Members: **Eggleston, J.D.** (Chair), Mueller, V.T., Fierro, C.
- Vanderhoof, H.R. (Spring 2024). Slip recovery mechanics in simulated pregnancy. Members: **Eggleston, J.D.** (Chair), J.B. Concha, V.T. Mueller, R. Catena.
- Jenkins, J.R. (Fall 2023). The physiological effects of acute and ramp hypoxic exposure during simulated flight tasks. Committee Members: **Eggleston, J.D.** (Administrative Chair), Smith, C.M., Boyle, J.B., Schmidt, R.
- Chowning, L. (Fall 2022). System and joint mechanical difference between countermovement vertical jumps and loaded jumps. Committee Members: Harry, J.R., Palmer, T., Vellers, H., **Eggleston, J.D.** (External committee member).
 - Hired as tenure-track faculty member – South Dakota University, 2022
- Olivas, A.N. (Spring 2022). The mobility and cognitive mechanisms involved in altering gait speed in children with Autism Spectrum Disorder. Committee Members: **Eggleston, J.D.** (Chair), Kendall, M.R., Parada, A., Manning, R.A.
 - Post-doc – Arizona State University, ASU Neurorobotics Lab, 2022
- Cereceres, P.A. (Spring 2021). An investigation of upper extremity motor impairments in children diagnosed with Autism Spectrum Disorder: Motor planning vs. motor execution. Committee Members: Boyle, J.B. (Chair), **Eggleston, J.D.**, Mueller, V.T., Alvarado, C.
 - Assistant Professor, Texas Lutheran University, Fall 2021
- Leyva, K. Undetermined topic. Committee Members: Mueller, V.T. (Chair), **Eggleston, J.D.**, Moya, E.
 - Student dismissed from program
- Dietze-Hermosa, M. (Spring 2021). Effects of an 8-week resisted spring training program on ice skating speed, acceleration, and measures of athletic performance in male ice hockey players. Committee Members: Dorgo, S. (Chair), **Eggleston, J.D.**, Smith, C.M., Gonzalez, R.V., Schilling, B.K.
 - Faculty, Brigham Young University – Idaho, Fall 2021
- Montalvo, S. (Spring 2021). The effects of different stretching modalities on the antagonist and agonist muscles on isokinetic strength, muscular power, and reactive strength index before and after a complex or velocity based training exercise interventions. Committee Members: Dorgo, S. (Chair), **Eggleston, J.D.**, Ibarra-Mejia, G., McBride, J.

- Saucedo, F. (Spring 2020). The effects of a 6-week controlled whole-body vibration training program in reducing falls risk among healthy older adults. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Browne, K.L., Harry, J.R.
 - Assistant Professor, Penn State University Altoona, Fall 2020

Master's Thesis & Project Committees

- Gonzales, S.A. (Fall 2023). Systematic hypoxia impact on limb perfusion rate of tissue following tourniquet application. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Mueller, V.T.
- Cabanillas, U.E. (Spring 2023). A comprehensive comparison of drop landing mechanics between Division I female cheerleaders and recreationally active females. Committee Members: **Eggleston, J.D.** (Chair), Smith, C.M., Simpson, J.D.
- Sanchez, R.U. (Fall 2022). A comparison of spatial-temporal gait variability in over-ground and treadmill walking in children with Autism. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Harry, J.R. doi: [10.13140/RG.2.2.10449.61281](https://doi.org/10.13140/RG.2.2.10449.61281)
- Jarquin, I.A. (Spring 2021). The effects of dual-tasking: Walking while texting on slip recovery mechanics. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Gutierrez, M. doi: [10.13140/RG.2.2.1826.25280](https://doi.org/10.13140/RG.2.2.1826.25280)
- Salmon, O.F. (Spring 2021). The effects of a combined multi-stressor environment and fatigue on pistol shooting performance. Committee Members: Smith, C.M., **Eggleston, J.D.**, Schmidt, R.J.
 - a. Admitted to UTEP's Interdisciplinary Health Sciences Doctoral Program, Fall 2021 Cohort
- Cubillos, N. (Fall 2020). Association and predictive abilities of jump and throw tests to track performance in Division I athletes. Committee Members: Dorgo, S. (Chair), **Eggleston, J.D.**, Gurovich, A.
- Sanchez, C.N. (Fall 2022). Effect of ankle braces on frontal plane knee angle and moment while performing sport specific movements. Committee Members: **Eggleston, J.D.** (Chair), Smith, C.M., Harry, J.R. doi: [10.13140/RG.2.2.22749.54247](https://doi.org/10.13140/RG.2.2.22749.54247)
- Tune, C.H. (Summer 2020). The effects of microgravity & weightlessness on the human balance system. Committees Members: Boyle, J.B. (Chair), **Eggleston, J.D.**, Gutierrez, M.
- Chavez, E.A. (Summer 2020). The influence of over-ground versus treadmill walking on gait mechanics in children with autism spectrum disorder. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Alvarado, C. doi: [10.13140/RG.2.2.27226.82881](https://doi.org/10.13140/RG.2.2.27226.82881)
 - a. Admitted to UTEP's Interdisciplinary Health Sciences Doctoral Program, Fall 2020 Cohort
- Pearson, J.R. (Spring 2020). A comparative assessment of ASD motor behavior in the discrete and reciprocal design. Committee Members: Boyle, J.B. (Chair), **Eggleston, J.D.**, Manning, R.A.
- Gonzalez, M. (Spring 2020). The effects of manual resistance on upper-body post-activation potentiation. Committee Members: Dorgo, S. (Chair), **Eggleston, J.D.**, Smith, C.M., Ibarra-Mejia, G.
 - a. Admitted to UTEP's Interdisciplinary Health Sciences Doctoral Program, Fall, 2020 Cohort

- Vanderhoof, H.R. (Spring 2020). The effects of pregnancy on balance and stair climbing mechanics in healthy females. Committee Members: **Eggleston, J.D.** (Chair), Boyle, J.B., Dufek, J.S. doi: [10.13140/RG.2.2.18838.22086](https://doi.org/10.13140/RG.2.2.18838.22086)
 - a. Admitted to UTEP's Interdisciplinary Health Sciences Doctoral Program, Fall 2020 Cohort
- Gruber, L.D. (Spring 2019). The effects of eccentric overload bench press training on 1RM performance and EMG activity in powerlifters. Committee Members: Dorgo, S (Chair), **Eggleston, J.D.**, Ibarra-Mejia, G.

Master's Project Committees

- Mendoza, D.L. (Fall 2021) Effects of decreased gait speed on asymmetry within the Autism Spectrum Disorder population. Department of Biomedical Engineering, College of Engineering, Committee Chair. doi: [10.13140/RG.2.2.16580.55682](https://doi.org/10.13140/RG.2.2.16580.55682).

Undergraduate Student Mentees

- Tovar, B. (2020). The effect of advancing pregnancy on postural sway velocity in bilateral and unilateral standing.
- Tovar, B. (2020). The effects of whole-body vibration training on gait mechanics in children with Cerebral Palsy. Summer Undergraduate Research Program Assistantship, UTEP.
- Bryant, C.M. (Spring 2020). The effects of jump training on jump performance in elite level jumpers. KIN 4390 – Independent Study

University of Nevada, Las Vegas

Undergraduate Student Mentees

- Casale, E.A. & Hunt, A.R. (2017). Joint kinetics and kinematics of jumping and cutting.
- Hunt, A.R., Aure, M., & Casale, E.A (2017). Joint kinetics and kinematics of jumping and cutting with and without ankle bracing.
- Flores, L.A. (2017). Effects of load carriage on lower extremity joint patterns in children with autism spectrum disorder. Rebel Research and Mentorship Program.
- Mamauag, M. (2017). Examining the influence of backpack weight on stride kinematics among children with autism spectrum disorder. Rebel Research and Mentorship Program