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EDUCATION

PH.D., EDUCATIONAL PSYCHOLOGY

University of Northern Colorado Greeley, CO Graduation: December 2008

Advisor: Dr. Marilyn Welsh Dissertation: *Effectiveness of the first-year experience program at the University of Northern Colorado in supporting student transition and success: An application of Tinto's theory of college student withdrawal*

M. A., PSYCHOLOGY; EMPHASIS: HUMAN NEUROPSYCHOLOGY

University of Northern Colorado Greeley, CO Graduation: May 2003

Advisor: Dr. Marilyn Welsh Thesis: *Contribution of inhibition to tower of hanoi-revised performance.*

B. A., PSYCHOLOGY; MINOR: BIOLOGY

University of Northern Colorado Greeley, CO Graduation: May 2001

RESEARCH INTERESTS

EFFECT OF ANXIETY AND STRESS ON THE DEVELOPMENT OF EXECUTIVE FUNCTIONING

This research builds upon my interest in the transition between high school and college. The transition can be very anxiety-provoking, and has the potential to flood the brain with stress hormones for an extended period of time. The question is, how does the stress response affect the development of the frontal lobe, an area considered to subserve

executive functioning. Executive functioning is involved in goal-directed behavior, and the frontal lobe continues to develop well into the 20's, leaving the possibility that stress, anxiety, and depression during the college transition could alter the developmental course of executive functioning.

MULTIMEDIA LEARNING

Multimedia learning, such as audiovisual tutorials, is a promising area for individualized instruction. I am interested in studying when and how multimedia learning can be most beneficial through understanding of the cognitive processes involved in learning. My research is based on cognitive load theory, which postulates that knowledge acquisition is most effective when the instruction does not exceed the learner's working memory capacity. My research is also informed by dual-coding theory, which states that information is best presented through both auditory and visual pathways, but that duplicating visual information in an auditory form could overload working memory.

PROFESSIONAL EXPERIENCE

ASSISTANT PROFESSOR, 2009-PRESENT

Dept of Behavioral Sciences and Leadership; United States Air Force Academy; Primary duties include teaching and research.

ACADEMIC SUPPORT & ADVISING GRADUATE RESEARCH ASSISTANTSHIP, 2007-2008

Learning Communities Center, University of Northern Colorado; Duties included developing course and instructor surveys for evaluation of first-year seminars; factor analyzing survey; writing reports on the effect of first-year seminar on GPA and spring re-enrollment, and disseminating results to stakeholders.

NEUROPSYCHOLOGY EXTERNSHIP, 2007

Denver Health, Outpatient Behavioral Health Services, Denver, CO. Duties included administering a range of neuropsychological tests to patients referred from the departments of psychiatry, neurology, or rehabilitation; interviewing patients on their medical history; and writing neuropsychological reports.

NATIONAL CENTER ON SEVERE AND SENSORY DISABILITIES GRADUATE RESEARCH ASSISTANTSHIP, 2007

University of Northern Colorado, Greeley, Colorado. Duties included conducting literature searches on issues relevant to low-incidence disabilities, summarizing findings for public dissemination via website, and uploading and formatting articles on website:

Adams, C., Finnerty, M., Sebald, A., & Sweet-Barnard, S. (2008). National Center on Severe and Sensory Disabilities: TeachSSD Website. www.TeachSSD.org.

CENTER FOR RESEARCH ON LEARNING PROJECT COORDINATOR, 2005

University of Kansas, School of Education, <http://www.ku-crl.org>. Duties included coordinating a grant titled, *Building the Scientific and Programmatic Foundations for Assessing Reading Comprehension with Computerized Adaptive Tests*. Funded by the Carnegie Corporation of New York. Co-PIs: D.D. Deshler, J.C. Poggio, D. Mellard & M. Hock.

ATTENTION AND EMOTION GRADUATE RESEARCH ASSISTANTSHIP, 2003-2004

Laboratory of Dr. Joseph Dien, University of Kansas; Duties included analysis of functional magnetic resonance imaging studies.

PUBLICATIONS

- Dien, J., Franklin, M. S., Michelson, C. A., Lemen, L. C., Adams, C. L., Kiehl, K. A. (2008). fMRI characterization of the language formulation area. *Brain Research*, 1229, 179-192.
- Adams, C. L., & Umbaugh, R. (January, 2009). Reaching undecided students through a first-year experience program. *E-Source for College Transitions*, 6, 7-8.
- Salnaitis, C. L., Baker, C. A., Holland, J., Welsh, M. C. (2011). Differentiating Tower of Hanoi performance: Interactive effects of psychopathic tendencies, impulsive response styles, and modality. *Applied Neuropsychology*, 18, 37-46.

WORKS IN PROGRESS

- Salnaitis, C. L., & Welsh, M.C. *Submitted*. Component processes of the Tower of Hanoi: Impulsivity, fluid intelligence, and visual spatial working memory.
- Salnaitis, C. L. *Submitted*. Componential analysis of the analogies subtest of the General Ability Measure for Adults: Exploration of sex differences in fluid intelligence.
- Salnaitis, C. L., & Welsh, M.C. *Submitted*. Comparison of manual and computerized versions of the Tower of Hanoi-Revised.
- Salnaitis, C. L., Umbaugh, R., & Welsh, M. C. *Submitted*. Influence of major exploration and selection on first year experience student persistence: A structural equation modeling approach.
- Salnaitis, C. L., Umbaugh, R., & Welsh, M. C. *Submitted*. Retaining students through student-faculty interaction with first-year experience instructors and academic faculty: A structural equation modeling approach to identifying how instructors can foster out-of-class interaction.
- Salnaitis, C. L., & Umbaugh, R. & Welsh, M. C. *Submitted*. Development of a survey to evaluate the effectiveness of first-year experience programs in supporting student transition and success.

Salnaitis, C. L., & Umbaugh, R. & Welsh, M. C. *Submitted*. Testing Tinto's model of college student attrition on first-year experience students.

Salnaitis, C. L., Baker, C. A., Burns, P. D., & Welsh, M. C. *In Preparation*. Diet restrictors and memory bias for food words during a cognitively demanding task: Association with cortisol levels and self-reported anxiety.

Salnaitis, C. L., Baker, C. A., Burns, P. D., & Welsh, M. C. *In preparation*. Relationship between cortisol, dietary restraint, and anxiety.

CONFERENCE PRESENTATIONS

Salnaitis, C. L., Pierce, C.A., Davis, J., Eguigure, A. Llamas, M., Rhoads, M., & Simpson, K. (February, 2011). Testing the equivalency of three recognition formats of the Rey Auditory Verbal Learning Test. Poster presented at the meeting of the International Neuropsychology Society, Boston, Massachusetts.

Peterson, E., Jost, S., Brown, S., Mitton, L., Montoya, J., Peake, M., Adams, C., & Dickerson, A. (April, 2009). *Preattentive threat processing and subclinical autism symptomatology in college students*. Poster presented at the meeting of the Society for Research in Child Development, Denver, Colorado.

Adams, C. L., Burns, P., Welsh, M. C., Schmidt, K., Spindler, C. A., & Montoya, J. (August, 2007). *Pilot study of the effects of cognitive stressors on cortisol responsivity for low, middle, and high anxiety individuals*. Poster presented at the meeting of the International Society for Psychoneuroendocrinology, Madison, Wisconsin.

Adams, C. L., Welsh, M. C., Schmidt, K., Spindler, C., Montoya, J., Holderness, S., & Jost, S. (August, 2007). *Effects of anxiety and restrictive eating attitudes on memory for food words and non-food words*. Poster presented at the meeting of the International Society for Psychoneuroendocrinology, Madison, Wisconsin.

Spindler, C. A., Adams, C. L., & Holland, J. (May, 2007). *Impact of psychopathic tendencies and impulsive responding on problem solving in a computerized versus physical modality*. Poster presented at the meeting of the Association for Psychological Science, Washington, D.C.

Adams, C. L., Spindler, C. A., & Holland, J. (April, 2007). *Differentiating tower of hanoi performance: Interactive effects of psychopathy, impulsivity, and modality*. Paper presented at the meeting of the Rocky Mountain Psychological Society, Denver, Colorado. Recipient of the Best Student Research Award.

Adams, C. L., Holland, J., & Spindler, C. A. (April, 2007). *Preliminary development of a measurement of young adults' strategies for solving the tower of hanoi task*. Poster presented at the meeting of the Rocky Mountain Psychological Society, Denver, Colorado.

Adams, C. L., Welsh, M. C., & Phillips, L. (February, 2007). *The effect of cognitive load, interference type, and timing on working memory performance in a dual-task paradigm*. Poster presented at the meeting of the International Neuropsychological Society, Portland, Oregon.

- Dien, J., Franklin, M. S., Michelson, C. A., Lemen, L. C., Adams, C. L., & Kiehl, K. (November, 2006). *ERP/fMRI characterization of the language formulation area: Implications for dyslexia*. Poster presented at the meeting of the Psychonomic Society, Houston, TX, USA, 2006.
- Dien, J., Franklin, M. S., Michelson, C. A., Lemen, L. C., Adams, C. L., & Kiehl, K. (June, 2006). *Localizing the N400 semantic cloze effect: Parametric ERP and fMRI analysis*. Poster presented at the meeting of the Organization for Human Brain Mapping, Florence, Italy.
- Adams, C. L. (January, 2004). *Different approaches to anxiety and fear*. Poster presented at the 1st Annual University of Kansas Research Summit, University of Kansas, Lawrence, KS and presented at the Capital Building, Topeka, KS.
- Dien, J., Franklin, M. S., Michelson, C. A., Lemen, L.C., Adams, C. L., and Watterson, L. D. (April, 2004). *Combined ERP and fMRI examination of lateralized processing of semantic expectancy and meaningfulness*. Poster presented at the meeting of the Cognitive Neuroscience Society, San Francisco, California.
- Dien, J., Franklin, M. S., Michelson, C. A., Lemen, L. C., Adams, C. L., & Watterson, L. D. (October, 2004). *A combined ERP and fMRI examination of lateralized processing of semantic expectancy and meaningfulness*. Talk presented at the meeting of the Society for Psychophysiological Research, Santa Fe, New Mexico.
- Adams, C. L., Welsh, M., Johnson, A., Long, C., & Fredricks, M. (February, 2004). *Contribution of inhibition, visuospatial working memory, and fluid reasoning to tower of hanoi-revised performance*. Poster presented at the meeting of the International Neuropsychological Society Conference, Baltimore, MD.
- Adams, C., Welsh, M., Warneke, E., Norton, K., & Orr, D. (February, 2003). *Validity study of a computerized version of the Tower of Hanoi*. Poster presented at the meeting of the International Neuropsychological Society Conference, Honolulu, Hawaii.
- Welsh, M., Huizinga, M., Granrud, M., Cooney, J., Adams, C. & van der Molen, M. (February, 2002). *A structural equation model of executive function in normal young adults*. Paper presented at the meeting of the International Neuropsychological Society Conference, Toronto, Ontario, Canada.
- Locke C., Welsh, M., Adams, C., & Kurtz, A. (February, 2002). *Tower of hanoi: Influence of strategy instruction and extended practice on performance*. Poster presented at the meeting of the International Neuropsychological Society Conference, Toronto, Ontario, Canada.
- Devine, S., Welsh, M.C., Retzlaff, P., Yoh, M., Adams, C. (February, 2001). *Explicit and implicit cognitive processes underlying tower of hanoi performance*. Paper presented at the meeting of the International Neuropsychological Society Conference, Chicago, IL.

TEACHING

UNITED STATES AIR FORCE ACADEMICY, 2009-PRESENT

Instructor of Record for First Year Experience and Behavioral Science

UNIVERSITY OF KANSAS, 2004

Graduate Student Instructor of Record for Cognitive Psychology, and General Psychology

UNIVERSITY OF NORTHERN COLORADO, 2005-2008

Graduate Student Instructor of Record for Child and Adolescent Psychology, and Social Psychology,

FRONTIERS OF SCIENCE INSTITUTE, SUMMER 2008

Instructor for Frontiers of Neuroscience at the University of Northern Colorado. Taught a course including genetics, cognitive psychology and neuroscience to high school students participating in a 6-week summer program for gifted students. Additional duties included mentoring four students in research on cortisol levels of women who report anxiety and disordered eating behaviors; escorting students on industrial visits, field trips, and camping trips to South Dakota and Rocky Mountain National Park; chairing committees to write alumni newsletter and open house program; and grading student research papers.

AWARDS AND GRANTS

Graduate Student Scholar, College of Education & Behavioral Science, UNC, 2008

Student Research Award, Rocky Mountain Psychological Association, 2007

UNC Research Grant, 2006, 2007, 2008

UNC Conference Travel Award, 2002-2003, 2006-2007

Graduate Student First Year Fellowship, UNC, 2001, 2005

GROUPS/ORGANIZATIONS

International Neuropsychological Society

PROFESSIONAL SERVICE

Junior Faculty Representative of the Department of Behavioral Science and Leadership,
USAFA, 2010

Roundtable Chair for the 2010 Annual Meeting of the American Educational Research Association

Conference Proposal Reviewer for American Educational Research Association, 2009

Conference Coordination, Mountain States Teaching of Psychology Conference in Colorado Springs, CO September 2009

Graduate Program Committee, Graduate Representative, 2008

UNC Educational Psychology Society, Secretary/Treasurer, UNC, 05/06, 06/07, 07/08

New Faculty Search & Screen Committee, Graduate Representative, 2002

REFERENCES

Andy Katayama, Professor

Department of Behavioral Sciences and Leadership

United States Air Force Academy

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USAF Academy, Colorado 80840

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