

Jeffrey N. Howard, PhD

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EDUCATION

Wichita State University, Wichita, Kansas

Ph.D. in Human Factors Psychology, 2007

Dissertation: “Color association with differential waveform driven force-feedback vibration periodicities”

Committee Chair: Dr. Charles Halcomb

Wichita State University, Wichita, Kansas

Master of Arts in Experimental Psychology, 2003

Thesis: “An amorphous visual field hue algorithm for visuo-perceptual habituation”

Thesis Chair: Dr. Darcee Datteri

Fort Hays State University, Hays, Kansas

Master of Science in Clinical Psychology, 2001

Thesis: “Integrated processing: Melodic temporal pattern and rhythmic syllable pattern of song title in unfamiliar music”

Thesis Chair: Dr. Robert Markley

Washburn University, Topeka, Kansas

Bachelor of Arts in Psychology, 1999

Kansas State University, Manhattan, Kansas

Bachelor of Science in Radio-Television Production/Engineering, 1990

PROFESSIONAL EXPERIENCE

Academic Positions

Adjunct Professor of Psychology

Baker University School of Professional and Graduate Studies,
Overland Park, Kansas

2008-present

Instructor of Psychology

Wichita State University, Wichita, Kansas

2001-2007

Lab Manager/Research & Experimental Design Coordinator

Music Cognition/Audio-Visual Perception Lab
Wichita State University, Wichita, Kansas

2001-2007

Student Lab Manager, Animal Behavior Laboratory Jan. 2001-Aug. 2001
Ft. Hays State University, Hays, Kansas

Graduate Teaching Assistant (Lab Instructor/Tutor) Spring 2001
Ft. Hays State University, Hays, Kansas (Research Methods)

Graduate Teaching Assistant (non-instructional) Fall 2000
Ft. Hays State University, Hays, Kansas (General Psychology)

Graduate Teaching Assistant (Lab Instructor/Tutor) Spring 2000
Ft. Hays State University, Hays, Kansas (Physiological Psychology)

Graduate Teaching Assistant (non-instructional) Fall 1999
Ft. Hays State University, Hays, Kansas (General Psychology)

Industry Experience

Human Factors Engineering Specialist II, June 2008-present
Embarq, Inc., Overland Park, Kansas
Experimental design, usability and human factors research, testing, and application of findings for process, systems, and product improvement; conducting statistical analyses, create statistical models, preparing reports and findings for presentation to design teams and management; writing custom software programs for experimental data collection in testing/experimental environments

Statistical Analyst, Department of Performance Improvement, Apr. 2007-May 2008
Barnes Jewish Hospital at Washington University Medical School,
St. Louis, Missouri
Transferring JCAHO (Joint Commission for Accreditation of Healthcare Organizations) core measure tracking forms from paper-based to SQL Server ASP.Net electronic format; Developing Visual Basic applications solutions for clinical data manipulation and clinical scorecard report creation; Conduct analyses on small/large datasets (e.g. factor analysis, discriminant analysis, queuing theory, regression models); Human factors consultation on design issues and human-error/human decision-process paradigms.

Clinical Data Analyst/Programmer, Prairie View Process Solutions Dec. 2005-July 2007
Inc., Wichita-Newton, Kansas, www.pvi.org
Transferring mental health assessment instruments from paper-based to VB.Net, ASP.Net, VB, MS Access-VBA electronic formats for recording data to databases, facilitate easier manipulation of data, and maximize database efficiency; conduct in-depth data analyses for both small and large datasets (e.g. factor analysis, discriminant, regression models); preparing reports and findings for presentation

Human Factors Psychologist/Data Analyst Intern, Motorola Inc., Chicago/Libertyville, Illinois **June 2004-Sept. 2004**

Conduct data analyses on experimental results for Human Factors design team research (e.g. discriminant analysis, multi-dimensional scaling, and logistic regression); assist in creation of experimental designs and testing objectives; presentation of results and conclusions to appropriate departments/teams

Clinical Site Research Coordinator, Henry M. Jackson Foundation for the Advancement of Military Medicine, National Naval Medical Center, Bethesda, Maryland **June 2000-Aug. 2000**

Site location: Darnall Army Community Hospital, Bennett Medical Center, Ft. Hood, Texas

Project: "Predictors of Recovery in Occupational Low Back Pain in Primary Care Patients"

Duties: Oversee collection of data, management and administration of research tools for research initiative at Darnall Army Community Hospital and Bennett Medical Center, Ft. Hood, Texas.

Consulting

Patient Safety/Human Factors Project Consultant, Via Christi Research/Via Christi Psychiatric Research Institute, Wichita, Kansas **Jan. 2001-Aug. 2001**

Provide relevant research information for patient safety grant initiative; creation of theoretical models for quantifying and analyzing desirable patient safety issues (structural equation modeling regarding sequential factors of treatment processes, discriminant analysis for derivation of equations and analyses of beta weighting factors)

PEER-REVIEWED PUBLICATIONS

Howard, J.N. (2008). Color association with differential waveform driven force-feedback vibration periodicities. *Haptics-e: The Electronic Journal of Haptics Research* (in revision)

Howard, J.N. (2008). Spontaneous remission and the Near-Death Experience (NDE). *The International Journal of Healing and Caring* (in revision).

Howard, J.N., Lambdin, C. G., & Datteri, D.L. (2007). "Let's Make A Deal": Quality and availability of second-stage information as a catalyst for change. *Thinking and Reasoning*. Volume 13, Issue 3 August 2007, 248 – 272.

Howard, J.N., & Datteri, D.L. (2004). Integrated processing: Melodic temporal pattern and rhythmic syllable pattern of song title in unfamiliar music. *Journal of Music and Meaning* (2), Summer 2004.

PRESENTATIONS

- Howard, J.N. (2006). Visual spatial frequency and color association with differential waveform driven force-feedback vibration periodicities. Presented at the Graduate Research And Scholarly Projects symposium, Wichita State University, April 28, 2006.
- Datteri, D.L., & Howard, J.N. (2004). The sound of color. *Proceedings of the 8th annual International Convention for Music Perception and Cognition (ICMPC)*, Northwestern University, Chicago, Illinois. Presented August 5, 2004.
- Howard, J.N. (2000). Integrated processing: Melodic temporal pattern and rhythmic syllable pattern of song title in unfamiliar music. Oral presentation at the Association for Psychological and Educational Research in Kansas/Nebraska Psychological Society (PERK/NPS) conference, University of Nebraska at Kearney, November 11, 2000
- Howard, J.N. (2001). Integrated processing: Melodic temporal pattern and rhythmic syllable pattern of song title in unfamiliar music. Oral presentation at the Great Plains Psychology Conference, Missouri Southern State College, March 23-24, 2001
- Challacombe, D.J., Grover, C.A., Howard, J.N. (2001). Reduced caffeine consumption by rats postnatally exposed to lead. Presented by Challacombe, D.J. at the Psychological and Educational Research in Kansas convention, fall 2001, Baker University, Baldwin City, Kansas. *1st place award for research
- Howard, J.N. (2000). Aggression, anger, & control. Presented for Seminar in Community Mental Health, Fort Hays State University, October 17, 2000.
- Howard J.N. (1998). Pacing activity in North American black bears: An observational study. Presented at the Topeka Zoo for Washburn University, Topeka, KS

COURSES TAUGHT

Sixteen semesters of direct instruction at Wichita State University (including summers)

PSY111	General Psychology
PSY322	Cognitive Psychology
PSY324	Psychology of Personality
PSY332	Psychology of Perception
PSY334	Developmental Psychology
PSY342	Psychology of Motivation
PSY411	Research Methods in Psychology
PSY516	Drugs & Human Behavior

One semester as an adjunct professor at Baker University

PY111 General Psychology

INSTRUCTIONAL TECHNOLOGY

Blackboard online instruction and course interaction portal, Wichita State University, Wichita, Kansas 2001-2007

Blackboard online instruction and course interaction portal, Baker University School of Professional and Graduate Studies, Overland Park, Kansas, 2009

CUSTOM SOFTWARE WRITTEN FOR RESEARCH:

Child behavioral observation and remote data recording via Pocket PC; (HP1955) Windows Mobile 5 custom designed program **In Progress**
University of Southern Mississippi, Department of School Psychology

Core Measures Database-Variance Validation Tracking Program **2007-2008**
SQL ASP.NET 2.0 application currently used by the Department of Patient Safety, Barnes Jewish Hospital at Washington University Medical School, St. Louis, Missouri

Pilot training 'terminology comparison' ratings **2006**
ASP.NET web application 1.1 .net framework; proof-of-concept demonstration application constructed for the National Institute of Aviation Research (NIAR) at Wichita State University (WSU), in conjunction with Cessna Flight Safety training of Wichita, Kansas, for Dr. Chris Hamblin, WSU-NIAR human factors laboratory.

Child behavioral observation and remote data recording via Pocket PC; (HP1955) Windows Mobile 5 custom designed program **2006**
Written for Dr. Lynn Schrepferman, Self-Help Network of Kansas, Wichita State University.

Let's Make A Deal: Quality and availability of second-stage information as a catalyst for change. (published research) **2006**
Visual Basic 6 application designed for Music Cognition Audio Visual Perception Lab (MCAV) at Wichita State University

CAP - The Capabilities Awareness Profile **2006**
ASP.NET web application 1.1 .net framework; data recording via SQL Server 2005; The CAP is a 124-item instrument measuring an individuals' self belief in their capabilities of functioning.
Created for Prairie View Process Solutions Inc., <http://www.pv-psg.org/>

- Color association with differential waveform driven force-feedback vibration periodicities. Doctoral dissertation, Wichita State University** 2006
Visual Basic 6 application designed for Music Cognition Audio Visual Perception Lab (MCAV) at Wichita State University
- CAP (Capabilities Awareness Profile) MS Access VBA graphing utility** 2006
MS Access with Visual Basic Applications (VBA) interface and coding
Created for Prairie View Process Solutions Inc., <http://www.pv-psg.org/>
- 'Inpatient Child Outcomes' (ICO) MS Access VBA graphing utility** 2006
MS Access with Visual Basic Applications (VBA) interface and coding. Allow importation of teleform scanned data to MS Access program; calculate full-scale and subscale scores; launch of Excel graphing template to graph data; button-click PDF file creation
Created for Prairie View Process Solutions Inc., <http://www.pv-psg.org/>
- The Sound of Color: An investigation of fundamental cross-modality sensory response** 2005
Visual Basic 6 application designed for Music Cognition Audio Visual Perception Lab (MCAV) at Wichita State University. Records responses to randomly presented sine or harmonic tones 130.81Hz-4093Hz (50 trials) and participant color-choice association to each tone.
- Integrated processing: Melodic temporal pattern and rhythmic syllable pattern of song title in unfamiliar music. (published research)** 2004
Visual Basic 6 application designed for Music Cognition Audio Visual Perception Lab (MCAV) at Wichita State University. Presents unique musical excerpts to participants and records responses.
- Phillips, C. (2004). Does Background Music Impact Computer Task Performance? Usability News (6.1), Software Usability Research Lab (SURL), Wichita State University** 2004
Visual Basic 6 application designed for Phillips, C. of Software Usability Research Lab at Wichita State University. Customized 'instant messaging' (IM) program allowing each user to anonymously communicate with one of 16 other users in a computer lab; the program randomized a music play-list for each participant (1 of 4 styles of music) who listened to the background music through headphones during the task.
- Super-ANOVA** 2003
Visual Basic 6 analysis of variance application designed for Psy922 'Seminar in Software Psychology', Dr. Charles Halcomb, instructor

SOFTWARE PROGRAMS USED FOR RESEARCH:**Proficiency**

SPSS-Statistical package for the social sciences	Excellent
SAS statistical package (mainframe/networked versions only)	Good
Microsoft Excel spreadsheet	Excellent
MATLAB statistical/mathematical modeling and analysis programming	Good
AMOS Structural equation modeling software	Good
Microsoft Visual Basic .NET/Pocket PC Windows Mobile 5 SDK	Very Good
Microsoft Visual Basic .NET/Pocket PC Windows Mobile 6 Professional SDK	Very Good
Microsoft ASP.NET (Visual Studio .Net 2003; Visual Studio .Net 2005)	Very Good
Crystal Reports 9	Good
Microsoft Visual Basic 6.0	Very Good
Microsoft eMbedded Visual Basic 3.0	Very Good
Microsoft Access 97, 2000, 2002, 2003	Very Good
Microsoft SQL Server 2005	Good
Microsoft Visual Basic Applications (VBA) programming	Very Good
Microsoft Word	Excellent
Microsoft PowerPoint	Excellent
MS Frontpage HTML-hypertext markup language for web development	Very Good
JavaScript scripting language	Fair
Microsoft Visio	Good
Cakewalk SONAR Producer audio recording editing software	Excellent
GoldWave audio recording editing software	Excellent
Adobe Audition audio recording editing software	Excellent
ImageJ image analysis program:	Good

LANGUAGES

Spanish

Proficiency: Speak-Excellent, Read-Very Good, Write-Very good

SCHOLARSHIPS

*Endowment association scholarship recipient, Ft. Hays State University

*Full athletic scholarship, Baker University, 1982

*United Methodist scholar for Families of Clergy

*United Methodist Church academic scholarship recipient

HONORS AND AWARDS

*4.0 doctoral program GPA at Wichita State University

*Wichita State University deans honor roll (all semesters)

*Ft. Hays State University deans honor roll (all semesters)

*Washburn University deans honor roll (all semesters)

*Phi Kappa Phi national academic honor society member

*Psychology National Honor Society Member (Psi Chi)

*Nominated (2006) for the Wichita State University Academy for Effective Teaching award

AFFILIATIONS/MEMBERSHIPS

- *American Psychological Association (APA student member)
- *Graduate Association of Students in Psychology, Ft. Hays State University (GASP) 1999
- *Psychology Graduate Student Organization (student rep.), Wichita State University (PGSO) 2001
- *Association of Psychological and Educational Research in Kansas (PERK)
- *Audio Engineering Society
- *Usability Professionals Association (UPA)

CREATIVE WORKS

Howard, J.N. (1999). *Walking on the moon*. Smooth jazz original music compilation on CD. (unpublished)

Available online at: <http://www.broadjam.com/artists/home.php?artistID=17689>

Howard, J.N. (2008). *Leap of Faith*. Contemporary Christian original music compilation on CD (unpublished)

Available online at: <http://www.broadjam.com/artists/home.php?artistID=17689>

ZigZag map calculation software (2008). Calculates map distances and map area for any on-screen viewable map on a PC. Compatible with Windows 95, 98, XP, Vista operating systems. Available online at: www.camillasoft.com