10TH ANNUAL

RESEARCH

ROUNDUP

12:00 - 12:45 DEPARTMENTAL LUNCH
4th floor Jabara

1:00 - 3:00 POSTER PRESENTATIONS
RM 307-309 at NIAR

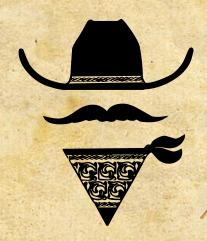3:15 - 4:15 ORAL PRESENTATIONS
RM 307-309 at NIAR

April 24th

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WSU PSYCHOLOGY DEPARTMENT

& HFES STUDENT CHAPTER

WANTED

Clinical

Community

Human Factors

Poster Presentations

CLINICAL

Authors   #1

Nicole Schmidt, Erin Thompson, Michael R. Pauldine, Rayna Herren, Lindsey Bupp, Callie Brockman, & James Snyder, Ph.D.

Title

Synergistic Contributions of Skilled Parenting, Child Impulsivity and Fearfulness to the Development of Externalizing Problems

Abstract

Research indicates a strong genetic link for impulsivity in children. Children high in impulsivity are at a greater risk for developing externalizing problems. Fearfulness, otherwise known as inhibited temperament, is a characteristic that also has a strong genetic loading, but may also be shaped by experience. Whether conduct problems develop due to impulsivity in children may depend on parenting factors, in addition to inhibited temperament. The present study sought to evaluate conduct problem outcomes by assessing Impulsivity-Inattention, Fearlessness-Inhibition, and Skilled and Coercive parenting. Conduct problems were tracked from kindergarten to the beginning of fourth grade based on teacher and parent report. A significant three-way interaction between impulsivity, fearfulness, and skilled parenting, suggesting that children with the greatest risk for developing conduct problems were those high in impulsivity, low in fearfulness, and with poorly-skilled parents. These results suggest that high impulsivity, due to genetic loading, along with fearlessness in children, can lead to higher prevalence in conduct problems, which can be moderated by skilled parenting.

Authors   #2

Deidra L. Salamone, Michael R. Pauldine, Emanuel Vondran, C. Donald Morgan, Ph.D, & Darwin A. Dorr, Ph.D.

Title

Examining Mean Differences Between the PSY-5 of the MMPI-2 and MMPI-2-RF

Abstract

The MMPI-2-RF (Ben-Porath & Tellegan, 2008b) was intended as a more efficient yet comprehensive version of the MMPI-2, designed to assess both Axis I and Axis II symptomatology. The Personality Psychopathology Five (PSY-5; Harkness, McNulty, & Ben-Porath, 1995) scales were originally developed in 1995 as more of a dimensional approach to conceptualizing personality traits that span both normal and abnormal functioning, and they are retained, but revised in the MMPI-2-RF (Graham, 2012). Specifically, in the service of improving internal and external validity and reliability, Harkness and McNulty (2007) omitted some items from the original PSY-5 while adding others (Ben-Porath, 2012; Graham, 2012). Therefore, this study sought to identify the mean differences between the PSY-5 scales of the MMPI-2 and MMPI-2-RF using data collected from a sample of psychiatric inpatients. Paired-sample t tests indicate significant differences between mean group T-scores on both the Disconstraint (DISC; N = 438) and Introversion (INTR; N = 440) scales. Specifically, a mean increase was identified for the Disconstraint scale from the MMPI-2 to the MMPI-2-RF, whereas the mean T-score on the Introversion scale decreased between the two test versions. The meaningfulness of each of these comparisons was deemed to be a small effect based on Cohen's (1992) classification; however, it should be noted that the sample size used in this study is rather large and, consequently, this likely influenced the effect sizes. No other comparisons yielded significant differences. Although this study demonstrates some change in the behavior of a couple of the revised PSY-5 scales as compared to those of the original PSY-5, it also suggests that, with regard to these scales, the MMPI-2-RF may have retained many of the psychometric properties of its predecessor. Study limitations and future research directions are also discussed.

CLINICAL

Authors

Michael R Pauldine & James Synder, Ph.D.

Title

Predicting Relationship Quality from Family Conflict in a Low Income, At-Risk Population: Research Proposal

Abstract

Research suggests that the family unit has a profound influence on an individual's development; however, the role of siblings is often overlooked. This limitation is especially salient given that sibling relationships are among the longest lasting across the lifespan. The present study seeks to examine the influence of sibling-sibling, parent-parent, and parent-child conflict in predicting future relationship quality in a low income, at-risk population. At Time 1, observers coded familial conflict during unstructured interactions with a sample of 182 10-year-old boys, sibling(s), and parents. Ten years later (Time 2), the boys completed questionnaires regarding the quality of their sibling, peer, and partner relationships. Multiple regression analyses will examine which conflicts at T1 best predict relationship quality at T2. It is hypothesized that parent-parent and parent-child conflicts will be most predictive of T2 partner relationship quality and same-sex, older sibling conflicts will be most predictive across the T2 relationship types.

Authors

Rayna Herren, Sydney Walsh, Amanda Runyan, & Darwin A. Dorr, Ph.D.

Title

The Relationship of the Personality Psychopathology Five scales of the MMPI-2-RF to the Clinical Personality and Severe

Abstract

The MMPI, published in 1941, was revised in 1989 as MMPI-2. In 2003 the Restructured Clinical scales (RCs) were introduced to address problems of low convergent validity. These scales represented a dramatic change and improvement. Subsequently the restructured form (RF) scales were created building on the RC scales forming new empirically validated scales. The current study sought to investigate the Specific Problem Scales of the MMPI-2-RF and how they map onto the Clinical Personality and the Severe Personality scales of the MCMI-III. The Psy-5 scale was originally developed to assess personality traits using a five-factor model. In 2007, the Psy-5 scales were developed to improve the scales reliability and validity. This study investigates the convergent validity of the Psy-5 scales of the MMPI-2-RF, which has recently been revised, and further explores the dimensionality of personality pathology utilizing the MCMI-III within an inpatient population. Examination of the Psy-5 of the original MMPI-2 and the MMPI-2-RF found a three-factor solution. Differences in loadings were observed for the aggression and disconstraint scale, as well as fewer cross loadings for the revised Psy-5 scales.

CLINICAL

Authors

Lindsey L. Bupp, Sydney A. Walsh, Darwin Dorr, Ph.D., & Donald C. Morgan, Ph.D.

Title

Using the MCMI-III to Predict Behavior of the Fs Scale of the MMPI-2-RF

Abstract

The MMPI-2-Restructured Form (RF; Ben-Porath & Tellegen, 2008) is the newest version of the MMPI (Butcher et al. 1989) and this revision involved the restructuring of the validity scales and the addition of the Fs scale. The Fs is comprised of somatic items that are infrequently endorsed by psychiatric inpatients and thus serves as a measure of symptom over-reporting. Although empirically derived, further cross validation studies will add to the empirical foundations of the scale. Another measure of personality pathology, the Millon Clinical Multiaxial Inventory-III (MCMI-III; Millon, Millon, Davis, & Grossman, 2006) contains well researched scales, reflects a theoretical framework that considers personality and psychopathology from a bio-social-learning perspective, and its current iteration was constructed to correspond to Axis I and Axis II diagnoses of the Diagnostic and Statistical Manual of Mental Disorders Fourth Edition Revised (DSM-IV-TR, American Psychiatric Association, 2000). The present study examined the relationship between the Infrequent Somatic Responses scale (Fs) of the MMPI-2-RF (Ben-Porath & Tellegen, 2008) and the Clinical Syndrome scales and Personality Patterns scales of the MCMI-III (Millon et al., 2006) in a sample of psychiatric inpatients. The results of two multiple regression analyses indicate that for the Clinical and Severe Clinical scales, Somatoform was the highest significant positive predictor of the Fs scale followed by Thought Disorder in reference and for the Personality and Severe Personality Pattern scales, Schizotypal and Masochistic were the only significant positive predictors of the Fs and Avoidant, Histrionic, and Compulsive were the only significant negative predictors of the Fs.

Authors

Jeffrey Swails & Robert Zettle, Ph.D.

Title

Upadana Scale: A Caveat of Psychological Flexibility

Abstract

Psychological flexibility is a multifaceted construct consisting of a range of behaviors that revolve around acceptance of private events such as emotions without attempts to control or change them. Despite the many components of psychological flexibility, it is often quantified with one total number and treated as a single construct. The current paper intends to examine a specific component of psychological flexibility through the development of a new scale. This new scale, Upadana Scale, is intended to measure the tendency to attach to positive emotions without accepting the normal fluctuations of desirable moods. The majority of existing scales focus on pushing away negative emotions, which should provide a useful comparison for the Upadana Scale. Additionally, the statistical strength of the proposed scale will be investigated as well as correlations with subjective well-being and mental health.

CLINICAL

Authors

Jeffrey Swails & Angela Cathey, MA

Title

Relationship between Experiential Avoidance and Dissociation

Abstract

Experiential avoidance refers to the tendency to avoid private events and has been associated with negative psychological outcomes. Dissociation refers to difficulty in integrating subjective experiences into current consciousness. Both occurrences have been implicated in many clinical populations including anxiety. The nature of dissociation suggests an avoidant function may be served and for this reason, its relationship with experiential avoidance is investigated. An independent samples t-test indicated that individuals low in experiential avoidance experienced significantly less dissociative symptoms than individuals high in experiential avoidance. It is possible that dissociation is a severe example of experiential avoidance but further research is required to make this connection.

COMMUNITY

Authors

Hannah Krieg & Charles Bursdal, Ph.D.

Title

Peer Pressure and Pornography: An Exploratory Study of Perceived Social Norms and Pornography Use

Abstract

This study will examine the relationship between perceived social norms and attitudes towards pornography use among a nonclinical population of young adults (individuals aged 18-26). Participants will include a sample of university students recruited from two college campuses within the United States. Participants will complete online questionnaires regarding acceptance and use of pornography, as well as perceptions of pornography use as a socially normative behavior. Using Social Norms Theory as a theoretical framework results are expected to indicate associations between participants' perceptions of pornography use as a socially acceptable behavior and their attitudes and or willingness to use pornography. The discussion will consider the implications of pornography use as a perceived social norm as it pertains to both individuals' and relationship well-being.

Authors

Kyrah K. Brown, M.A., Cari Alhers-Schmidt, Ph.D., Kari Harris, M.D., Erin Kenny, M. D., & Rhonda K. Lewis, Ph.D., M.P.H.

Title

Understanding Physicians' Care Practices for Young Mothers in Kansas: A Pilot Study

Abstract

Little is known about how physicians address the distinct health and learning needs of teen/young mothers. The purpose of this study was to describe how physicians address young mothers' learning and health needs; and to describe the characteristics and processes of care transition for young mothers. Sixty-one Sedgwick County Physicians completed a 17-item questionnaire. The findings reveal that family physicians are more likely to provide care to young mothers and that health topics least discussed with patients happened to be crucial factors associated with adverse health outcomes. In addition, physicians only occasionally incorporated health literacy practices for young mothers. Other findings emphasize the structural and practices barriers that physicians encounter when providing care to young mothers. Aside from the serious implications for the health service delivery for young mothers, these findings underline the importance of examining both physician and medical practice setting characteristics which may contribute to young women's health.

COMMUNITY

Authors

Heather Grohe & Greg Meissen, Ph.D.

Title

Bridging Intergroup Relationships: The Impact of Empathy Training on Intercultural Competency in College Study Abroad Students

Abstract

In our increasingly global society, the ability to understand one another across different nationalities is critical. The purpose of this research is to see the effect of teaching college study abroad students empathy skills and presenting them with personal stories from people of other countries on their intercultural competency. Prior to studying abroad, 100 students will take the Intercultural Development Inventory (IDI). During their Pre-Departure Orientation, half will receive empathy training including hearing personal stories of people from countries. Upon returning from their semester abroad, all 100 students will take the IDI again. The researchers will use dependent and independent samples t-tests to compare within-group and between-group changes in IDI scores. In addition, a factor analysis exploring the relationship of demographic data including political affiliation and religious affiliation to change scores will be conducted.

Authors

Jamie LoCurto, Rhonda K. Lewis, David Stowell, Kyrah Brown, & J'Vonnah Maryman

Title

Promoting Communal Thriving Through Community-Based Positive Youth Development Project

Abstract

Compared to White students, African American youth experience a greater proportion of achievement barriers, such as relatively low academic achievement, a tendency to disengage from the academic environment, and under representation in college enrollment and completion (Davis and Jordan, 1994; Graham, 2004; and Rogers-Sirin, 2005). These achievement gaps are worse with children who live in poverty. Prevention programs are needed to intervene and promote positive youth development, which, in turn, help create academic success for low-income students. A partnership was formed with different organizations in a Midwestern community to work with a local middle school in order to examine students attitudes towards school. A total of 34, predominately African American youth, participated in this study. The preliminary findings suggest that males and females are both interested in doing well in school (38 % and 58%, respectively) as well as report working hard at school (32% and 56%, respectively). In addition both males and females expect to obtain mostly A's on their report cards (29%). These findings suggest African American youth are interested in doing well in school and want to be successful. Going forward, we will compare the students attitudes towards school with their grades to see if our program has made a difference. Finally, limitations and implications for future research will be discussed.

COMMUNITY

Authors

J'Vonnah Maryman, Molly Brown, Ty Kane, Beverly Stewart, Jeff Anschutz, Rhonda K Lewis, Kyrah Brown, Jaime LoCurto, & David Stowell

Title

Promoting Immunizations and Preventing Disease in Public Schools Through Collaborative Work of Community Based Organizations

Abstract

In Kansas, children are excluded from school if they fail to document the receipt of required vaccinations by a certain timeframe established by the school district. This study describes a collaborative partnership between a local health department and local school district to enforce vaccination requirements while minimizing barriers. A total of 15 schools held school located vaccination clinics (SLVCs) to provide vaccinations to insured and uninsured students. The records of students on exclusion lists were checked against a state immunization registry. The results indicate a 43% reduction in students on the exclusion list as a result of cross reference with the state immunization registry. In addition, 20% of students on the exclusion list were vaccinated through SLVCs. Collaboration between local health departments and school districts reduces economic and educational loss that can occur when students are excluded from school and when parents take off from work.

Authors

Samuel Ofei-Dodoo, Kari Nilsen, Rachel Smith, & Louis J. Medvene, Ph.D.

Title

Exploring Older Persons Use of Computer-Mediated Communication Technologies

Abstract

Older persons receiving services in community settings, rather than Nursing Homes, are at risk of social isolation. Computer mediated communication offers technological resources which recipients of Home and Community-Based Services (HCBS) might use to reduce their social isolation. The present study involved personal interviews with 40 HCBS-customers-regarding their interest in communicating with members of their social networks, and using computers. After watching a videotape illustrating PointerWare- an easy-to-use computer interface that allows older persons to communicate with families and friends — 85% said they wanted to use computer to communicate. Current computer users were significantly less lonely than non-users.

COMMUNITY

Authors

Rachel Smith, Kari Nilsen, Samuel Ofei-Dodoo, & Louis Medvene, Ph.D.

Title

The Impact of Social Support Networks on Well-being of HCBS Elderly

Abstract

With the recent growth of the aging population, policy makers are trying to provide better healthcare through cost-efficient methods. The current trend is to shift eligible elderly persons on Medicaid out of nursing homes and into the community. The goal of the present study was to explore the associations between the social support networks of these community-dwelling elderly and their emotional well-being and subjective ratings of health. Network size was negatively related to isolation. Isolation was positively related to depression and loneliness, and negatively related to quality of life and perceived quality of relationships. Quality of life was positively related to perceived quality of relationships and subjective health ratings, and negatively related to depression and loneliness. Depression was positively related to loneliness and negatively related to perceived quality of relationships and subjective health ratings. Loneliness was negatively related to perceived quality of relationships and subjective health ratings.

Authors

Michael Lemke & Yorghos Apostolopoulos

Title

Integrated Worker Health Paradigm: Using Systems-Science Thinking to Advance Commercial Driver Well-Being

Abstract

Commercial drivers experience excessively poor health outcomes. Intervention approaches remain focused on individual-level factors, falling short in generating significant change by not addressing higher-level factors. A survey was administered to trucking companies (N=52) to evaluate the current state of corporate health and wellness programs. Results revealed a jumble of fragmented programs of limited scope. Individually-based, reactive programs remain the norm. A new approach is necessary which shifts the focus of interventions. Systems-science thinking provides a guiding paradigm. In this new, Integrated Worker Health paradigm, understanding the reciprocal effects of multilevel factors and implementing interventions which simultaneously focus on promoting and protecting health is vital. Survey results were compared to the stated best practices for interventions in this new paradigm to identify critical areas for improvement. Finally, a new approach tailored to commercial drivers, the Integrated Healthy Trucking paradigm, is suggested, integrating multiple, parallel pathways to promote and protect driver health.

HUMAN FACTORS

Authors

Brad Weber & Rui Ni, Ph.D.

Title

Multiple Object Tracking for Older Drivers

Abstract

Age related changes in perception not only cause inconvenience for those aging populations but also have implications on their safety, especially while driving. Many of these perceptual declines that come with aging are well known and thoroughly documented. Most of the research, however, has focused on physiological changes in hearing and vision. Although these factors certainly play a role, they likely are not the sole reason for these declines. This study examines the effects of aging on a person's ability to attend to multiple objects in a scene. The Multiple Object Tracking paradigm, first created by Pylyshyn (1988), has proven to be an extremely effective method of examining divided visual attention. A Multiple Object Tracking assessment will be conducted on participants of all ages who are currently drivers. In this way Multiple Object Tracking ability can be examined across the age range of drivers.

Authors

Andrew Miranda & Evan Palmer, Ph.D.

Title

Investigating the Temporal Dynamics of Rewarded Stimuli

Abstract

When certain stimuli are associated with reward, they develop attentional priority. The current project explored the time-course characteristics of attentional prioritization. Using an established reward-association paradigm, we tested the well-known attentional blink (AB) phenomenon. Once participants completed the reward-association task, they performed a search task in which they were asked to identify two colored letter targets briefly presented in a rapid stream of 20 otherwise white letters. We hypothesized that reward-associated items would be identified more often than non-rewarded stimuli. Early results indicate rewarded stimuli alleviate the AB, indicating that reward history plays a role in the temporal dynamics of attention allocation.

HUMAN FACTORS

Authors

John Paul Plummer & Rui Ni, Ph.D.

Title

Differences Across Age of the Useful Field of View

Abstract

The authors compared younger and older adults in two different aspects of the Useful Field of View (UFOV) test: total score and eccentricity. A modified version of the Sekular, Bennet, & Mamelek (2000) UFOV test was used for both of these tasks. The score of each of the three subtests was compared across the two age groups. The eccentricity of the peripheral targets in the peripheral and divided attention tasks were used to determine the average extent of a participant's UFOV. The hypothesized results are that the old participants will have significantly lower scores in their UFOV subtests. It is also hypothesized that the older adults would have a smaller range of eccentricity from the fixation point.

Authors

Christina Siu & Barbara S. Chaparro, Ph.D.

Title

An Evaluation Typing Performance on Three Tablet Keyboards

Abstract

This study evaluated typing performance and user experience on three tablet keyboards: Microsoft Surface Touch Cover Keyboard, Microsoft Surface Type Cover Keyboard, and Logitech Ultrathin Keyboard Cover for iPad. Sixteen participants (9 Females, 7 Males) ages 18-35 years (M= 22.13, SD= 4.44) participated in the usability test. Early results of this study will be discussed.

HUMAN FACTORS

Authors

Evan Palmer, Ph.D., Joseph R. Keebler, Ph.D., Sarah Fouquet, Elizabeth H. Lazzara, Ph.D., Julia K. Simmons, M.D., & Y. Raymond Chan, M.D.

Title

Effects of Interruption Type and Interruption Attitudes on Doctors' and Nurses' Feelings of Being "Overwhelmed"

Abstract

Chisholm, et al. (2000) reported that task interruptions are highly prevalent in health care settings, going so far as to label emergency departments as "interruption-driven." Hecht & Allen (2005) found that when overwhelmed in the workplace, individuals report lower self-efficacy, lower job satisfaction, and higher amounts of stress. Therefore, identifying causal factors of feeling overwhelmed is important for maintaining patient safety, improving job satisfaction, and reducing turnover. We surveyed doctors and nurses from a pediatric hospital to determine how their attitudes about interruptions and the type of interruptions they face relate to their self-reported feelings of being overwhelmed. We found that doctors were significantly more likely to report feeling overwhelmed than nurses, but for both groups, interruption attitudes significantly predicted their feelings of being 'overwhelmed'. We also found that interruptions by people were more potent than interruptions by electronics.

Authors

Duy Nguyen, Justin Owens, Alex Chaparro, Ph.D., Barbara Chaparro, Ph.D., & Evan Palmer, Ph.D.

Title

Gaze Pattern Differences Between Objective and Subjective Search of E-Commerce Web Pages

Abstract

Both users and retailers benefit from optimizing e-commerce web pages for consumers who freely browse, subjectively search (e.g., "Find a gift for your uncle."), or objectively search (e.g., "Find the laptop.") for merchandise online. However, search behavior of e-commerce web pages under these conditions is not well understood. We studied how gaze patterns were modulated by search task on 12 e-commerce web pages. Search for objectively defined targets yielded larger saccade amplitudes than when freely browsing or subjectively searching. Furthermore, users fixated product images more often than product text or navigation regions when searching for particular items. On the other hand, search for subjectively defined gifts led to longer fixation durations of navigation regions, in particular. These findings show that search behavior of e-commerce web pages is influenced by consumer objectives and concurs with classic findings from the scene perception literature about the influences of top-down goals on eye movements.

HUMAN FACTORS

Authors

Navaneethan Siva, Alex Chaparro, Ph.D., & Evan M. Palmer, Ph.D.

Title

Contributions of Face Processing to the Interpretation of Chernoff Faces

Abstract

Chernoff faces (Chernoff, 1973) are an early attempt at large scale multivariate data representation. This study investigated i) if Chernoff faces truly benefit from face perception, ii) whether they support efficient search during data display and iii) whether each feature is equally salient. We tested four pairs of oppositely coded Chernoff faces (e.g. smile, frown) in an oddball search paradigm with set sizes of 6 and 12. In order to evaluate whether face perception aided search, we used a control condition with inverted faces, a manipulation known to diminish holistic face processing. A second confirmatory experiment was also run using scrambled faces. Chernoff faces do not show any significant benefit from face perception, as demonstrable through equal performance for upright and inverted faces. They also appear to be inefficient visual search objects with slopes equivalent too or greater than spatial configuration (i.e., inefficient) search benchmarks.

Authors

Dustin C. Smith, Melissa E. Chinn, & Joseph R. Keebler, Ph.D.

Title

Combat Identification Using an Augmented Reality Learning System

Abstract

This research will examine training with an augmented reality learning system to identify combat vehicles. Due to the increase in use of unmanned vehicles (UVs) for missions, a question arises: How do we best train operators to perform well when presented with a combat identification task. More specifically: (a) Is training using canonical (front and side) views sufficient? (b) Due to UAV perspective surveillance are non-canonical/birds eye views necessary for optimal combat identification performance? (c) Would training with either perspective yield sufficient performance?

HUMAN FACTORS

Authors

Bobby Nguyen & Barbara Chaparro, Ph.D.

Title

Apple iPad Usage Trends by Students and Non-Students

Abstract

Since its release in April 2010, the Apple iPad has become the de facto tablet for consumers. Given the increasing popularity of the iPad as a consumer, educational, and work device, we were interested in how different groups of people use the iPad. More specifically, we were interested in how students and non-students use the iPad at work, school, and at play. One-hundred thirteen participants completed an online survey about iPad use. Results indicated students use the iPad more often for socializing, playing games, editing and posting photos, listening to audio, and taking pictures or videos. On the other hand, non-students use the iPad more often for reading the news, eBooks, and eMagazines.

Authors

Bobby Nguyen & Rui Ni, Ph.D.

Title

Effects of Contrast on Spatial and Temporal Integration in 2D Shape Perception from Dynamic Occlusion

Abstract

In self-motion, research has shown that optic flow can be a source that supplies information about heading, speed, and characteristics of the environment. Studies have shown that spatial and temporal integration may play a key role in motion perception. In the current study, we examined how spatial and temporal integration are affected by the quality of optic flow in 2D shape perception. Participants were asked to identify a 2D shape resulting from kinetic occlusion information. Three experiments were conducted in which optic flow density, display contrast, and optic flow lifetime were variables of interest. In each of the three experiments, the threshold of one variable was measured while the other two variables were manipulated. Results showed performance in 2D shape perception decreased as a function of decreased contrast, lifetime, and density. These results suggest that spatial and temporal integration might be potential predictors of driving performance under low contrast conditions.

HUMAN FACTORS

Authors

Mikki H. Phan & Barbara S. Chaparro, Ph.D.

Title

Examining the Game Usage and Preference of Past and Current Facebook Gamers

Abstract

This study focused on a giant sector of social games, that is, Facebook games. Particularly, the main goal of this study was to assess the general attitude, habit, and behavior of people who currently or used to play Facebook games. Of the 287 who completed the survey about Facebook games, over 70% indicated that they no longer play games on Facebook (i.e. past Facebook gamers). Respondents reported that the main reasons they stopped playing a Facebook game was due to being bored with the game, the game was too time-consuming, and real-world money and more friends were needed for the game to be fun. When asked what features would be associated with the "ideal" Facebook game, many indicated features such as fast loading time, good graphics, game rewards, and an option to play the game without needing real-world money.

Authors

David Libby & Alex Chaparro, Ph.D.,

Title

Distracted While Driving: A Comparison of the Effects of Texting and Talking On a Cell Phone

Abstract

In the United States, 39 states have passed legislation banning texting while driving. By comparison, no state bans hands-free cellular phone use by adults while driving. The concern regarding texting reflects an assumption that it poses a greater risk than talking on a cellular phone. However, there have been few published studies directly comparing these two tasks and their effects on driving performance. This study investigated the effects of texting and talking on a cellular phone on simulated driving performance while equating task duration. Even after equating the time spent on each task, texting still had a greater impact on driving performance. Drivers in the texting condition had significantly slower reaction times, made more eye movements away from the roadway, and detected fewer peripheral letter targets compared to when they were in the calling condition. The results of this study suggest that texting is a more disruptive form of distraction than talking and that its effects are not simply due to differences in task duration.

HUMAN FACTORS

Authors

Jibo He, Ph.D.

Title

Visual Behaviors and Vehicle Dynamics of Driver Fatigue

Abstract

Background: Driver fatigue is the major cause of many traffic crashes and financial losses. This research presents a mobile technology using smartphones to monitor driver fatigue and a simulated driving study on the visual behaviors and vehicle dynamics of driver fatigue. Methods: Subjects drove in a car-following task simulated using the TORCS driving simulator. An iPhone monitored the head and eye movements of drivers. Subjects drove in three sessions, each lasting 30 minutes. Results: Drowsiness impaired driving performance by causing more variable headway distance, larger standard deviation of speed and lane position. Increased drowsiness was accompanied by more frequent head nodding and head rotation, and larger standard deviation of the black pixel ratio in the eye area. Applications: The finding of this study reveals the visual behaviors and vehicle dynamics of a drowsy driver, which allows the possibility to develop a portable, affordable and mobile technology to detect driver fatigue.

Authors

Samantha Jansen, David Downs, Ph.D., & Alex Chaparro, Ph.D.

Title

Visual and Cognitive Predictors of Speech Intelligibility in Noisy Listening Conditions

Abstract

Researchers have demonstrated that visual and auditory cues interact improving speech intelligibility under noisy listening conditions. For instance, recent findings demonstrated that simulated cataracts hinder the ability of listeners to utilize visual cues to disambiguate speech. We aimed to determine which measures of visual, auditory, and cognitive performance predict participants' ability to disambiguate spoken messages in the presence of noise. Thirty young adults with normal visual acuity and hearing sensitivity completed a battery of visual, auditory, and cognitive tests. Speech intelligibility was tested under two conditions auditory-only with no visual input and auditory-visual with normal viewing. Regression analyses showed that the best predictors of speech intelligibility were measures of contrast sensitivity and executive functioning, including the Digit Symbol Substitution Test and Trail Making Test Part B. These results suggest that audiovisual speech integration is dependent on both low-level sensory information and high-level cognitive processes, particularly those associated with executive functioning.

HUMAN FACTORS

Authors

Jennifer Teves, Barbara Chaparro, Ph.D., Brandan Kennedy, M.D., Y. Raymond Chan, M.D., Robert Riss, M.D., Nebojsa Copic, & Julia Simmons, M.D.

Title

Survey on iPad Usage in a Pediatric Inpatient Hospital

Abstract

Tablet computers have great potential in healthcare because they provide an untethered interface to electronic medical records (EMRs) thereby eliminating the need for desktops or laptops in patient rooms. At a tertiary care, urban, free standing pediatric hospital, healthcare providers have been given iPads for use in the workplace. While no specific regimen of iPad usage was prescribed, one expected use was to provide portable access to EMR. A total of 354 healthcare practitioners responded to the online survey. Results indicated that 60.45% of participants use the iPad for EMR access while 68.36% use the device for non-work-related tasks. A total 59.81% of participants rated their satisfaction when using a portable tablet to access the EMR as either "siatisfed" (49.53%) or "very satisfied" (10.28%). Those who were satisfied cited portability (56.00%), convenience (43.79%), quick of access (32.77%), increased efficiency (16.67%), and battery duration (13.28%) as reasons for their satisfaction. Those who did not use it for EMR access indicated the following issues: difficulty in entering information using touch keyboard, difficulty in reading small fonts, constantly having to make font size bigger, small targets, and too much scrolling. The survey results suggest that health care personnel of various disciplines recognize that the portable tablet appears to have the potential to make a significant impact on their workflow in the hospital setting, however the use of a desktop designed interface displayed on a touch screen tablet is not optimal and at times a hindrance. Additionally a high-speed stable wireless network is required. Thus, the conclusion is that the tablet is a great tool, but it may require a native touch screen software design to maximize its capabilities and state of the art networking to maximize speed and performance.

WSU

MOST

WANTED

ORAL PRESENTATIONS

CLINICAL

AUTHORS

Emanuel J. VonDran & Darwin A. Dorr, Ph.D.

TITLE

An Establishment of Embedded Symptom Validity Testing Within the Delis-Kaplan Executive Function System

ABSTRACT

Within the field of neuropsychology, patients currently seeking litigation or worker's compensation are routinely evaluated to determine the presence and severity of cognitive impairment. While the instruments used to assess cognitive impairment are well validated, research has documented that nearly 40% of these patients attempt to feign or exaggerate cognitive impairment during neuropsychological examination. Given that cognitive functioning can only be accurately assessed when best performance is provided, this particular response bias makes it difficult for neuropsychologists to provide valid diagnoses and recommendations. Symptom validity tests have been created for the purpose of assessing noncredible performance; however more of these measures are needed given that noncredible performance is a multidimensional response style. The current study seeks to establish embedded symptom validity tests within a commonly used battery of executive functioning. If successful, this study would provide neuropsychologists with another way of assessing noncredible performance and provide greater confidence in their diagnostic findings.

COMMUNITY

AUTHORS

Kari M. Nilsen, Rachel Smith, Samuel Ofei-Dodoo, & Louis Medvene, Ph.D.

TITLE

The Social Support Networks of Elderly Home and Community-Based Service Recipients

ABSTRACT

One goal of the current research was to apply a previously developed method of assessing social support networks (SSNs) to a relatively unstudied population: "frail" elderly Medicaid-eligible home and community-based service (HCBS) recipients. This population is of interest because many states are shifting the site of care from long term care facilities, such as nursing homes, to the private homes of Medicaid eligible elderly. Researchers were interesting in gaining an understanding of the composition of SSNs, and to evaluate the relationships of isolation and perceived quality of relationships to SSN size. Forty 90-minute personal interviews were carried out. Participants were an average of 75.1 year old (SD = 5.86), 67.5% women, 65% Caucasian, and 42.5% were at high risk or above for isolation. Results show that larger SSNs are associated with less isolation (r = -.62) and less isolation was associated with higher perceived quality of relationships (r = -.37).

HUMAN FACTORS

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TITLE

Are e-Textbooks the Educational Tools of the Future?

ABSTRACT

Many universities are starting to offer e-Textbooks in place of traditional paper textbooks. As more schools and individuals switch to using e-Textbooks instead of traditional books, e-Textbook developers may have to develop more user-friendly applications to persuade institutions to purchase their e-Textbooks over a rival's. This study investigated the efficacy of two separate e-Textbook applications, Kindle and Inkling, for tasks involved in studying for an Introductory Psychology quiz. The ability to use the e-Textbook for studying, to make notes and bookmarks, and to navigate throughout a chapter were examined along with user satisfaction, perceived workload, immersion, and comprehension. Results showed that participants reported information was easier and faster to find than using a paper textbook, and comprehension scores improved after using both applications. Despite this, participants discovered several issues which impacted overall ease of use for both applications.

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