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## **Abstracts from the 2016 Oklahoma Research Day**

### **Held at Northeastern State University**

## **02. Education and Professional Studies**

### **01. Education**

#### **02.01.01 Assistive Technology in a Diverse Classroom**

**Nguyen,Julie** *Cameron University*

This poster will explore how to use assistive technology inside inclusive classrooms. Assistive technology is useful for disable and non-disable students. My poster will explore the possibilities of using different types of assistive technology to enhance educational learning for every student. Since classrooms are becoming more diverse and inclusive, teachers need to diversify their portfolio and teaching techniques.

#### **02.01.02 Comparison of Combined and Sequential Physical and Vocal Training for Parkinson's Disease**

**McGloster,Danielle** *University of Central Oklahoma*

**Loftiss,Migmar** *University of Central Oklahoma*

**Olsen,Dr. Jacilyn** *University of Central Oklahoma*

**Sealey-Holtz,Dr. Linda** *University of Central Oklahoma*

Purpose: A pilot study on Combined Physical and Voice Therapy for Parkinsons Disease (PD) provided evidence that simultaneous training of voice and physical fitness improved functional fitness, balance, and select speech components in adults with PD. The purpose of this study was to compare the outcome measures from that simultaneous voice and physical fitness group treatment to those obtained in sequential group treatment of voice and physical fitness among individuals with Parkinson's disease (PD). Methods: The sequentially delivered treatments were order balanced with two groups: voice-first (VF) and physical-first (PF). In the VF treatment program a group of 7 participants received 50 minutes of voice treatment followed by 50 minutes of physical fitness treatment three times per week for four weeks. In the PF program another group of 7 participants received 50 minutes of physical fitness treatment followed by 50 minutes of voice treatment three times a week for four weeks. The voice exercises included standard clinical voice treatment tasks; warm-up, sustained phonation, pitch glides, repetitive production, cognitive task, and choral recitation. All outcome measures were similar to those obtained in the pilot study, simultaneous, comparison group. Treatment efficacy and 'improvement' was judged by comparing the pre-and post- treatment voice measures involving stress level, maximum phonation time, maximum phonation dB, conversational dB, reading dB, count

### **02.01.03 The Purposes and Practices of Capstone Experiences at a Masters Level Institution**

**Nelson, Mike** *University of Central Oklahoma*

**Cunliff, Ed** *University of Central Oklahoma*

**Powers, Dr. Melissa** *University of Central Oklahoma*

**Skelton, Elle** *University of Central Oklahoma*

**Patel, Akash** *University of Central Oklahoma*

The goal of this project was to gather information and report on current practices and ideas related to the capstone experiences of Masters students at the University of Central Oklahoma. While most evidence supporting high-impact practices, such as capstone experiences, has been conducted at the undergraduate level and most discussions of improving students outcomes in graduate school have focused on doctoral degrees, we suggest it is time to evaluate capstone experiences at the Masters level. Invitations to participate in one-on-one interviews were sent to graduate program coordinators at the University of Central Oklahoma. Program coordinators were asked: (a) to provide a personal definition of a capstone experience, (b) to address the capstone requirements for their program and how the capstone experience prepares students for the workforce, (c) to identify the knowledge, skills, and abilities that students should obtain during their graduate program, and (d) to describe possibilities, other than the current capstone, that might better meet the needs of students. Program coordinators were asked to provide a copy of the criteria, directions, and assessment tools (i.e., rubric or checklist) for the capstone experience. Data is currently being analyzed and preliminary findings will be presented at the poster session.

### **02.01.04 An investigation of the effectiveness of interactive whiteboard technology in a hearing impaired preschool classroom**

**Benson, Susan** *University of Central Oklahoma*

**McCarthy, Molly** *University of Central Oklahoma*

With advances in technology, educators have new teaching tools available. One such tool is the interactive white board (IWB). Increasingly, instructional materials, novel as well as those incorporating a blending of existing curriculums, are being developed for use with IWBs for both typical learners and individuals with special learning needs. IWBs are easily accessible to all learners (even those with cognitive and physical disabilities), are simple and intuitive for children to use, and can present larger than life stimuli. Numerous scholarly review articles, white papers, anecdotal reports, and descriptive studies describe the uses of the IWB and its effectiveness in targeting both affective and cognitive domains. However, the effectiveness of IWB technology in instructing young children with hearing impairment has not been explored. Therefore, the purpose of the proposed study was to investigate the effectiveness of an interactive whiteboard in the delivery of instruction to preschool-age children with hearing impairment. A single subject design was employed to compare the effectiveness of the IWB in increasing on-task behavior during instruction with traditional instruction during which an IWB is not used. Results of the study add to the extant literature investigating early intervention instructional practices for young children with hearing impairment.

## **02.01.05 A Study of Public School Playground Quality in Southwest Oklahoma**

**Caughron,Katie** *Cameron University*

**Hilbert,Dana** *Cameron University*

The Center for Disease Control (CDC) recommends all children should have at least sixty minutes of physical activity per day. State licensed child care facilities serving young children must follow regulations concerning outdoor equipment and opportunities for developmentally appropriate play. Public school settings that educate young children do not have specific mandates concerning outdoor equipment. The purpose of this research was to examine the quality of the outdoor equipment and experiences available for young children attending public school in southwest Oklahoma. The quality of the outdoor equipment and experiences were assessed using portions of the Early Childhood Environmental Rating Scale (ECERS), the Consumer Product Safety Commission (CPSC) standards and the State Department of Human Services standards. Data reveals that none of the schools met all of the safety and quality standards. 1) Three of the twenty-three public elementary schools met the DHS safety standards. 2) Six of the twenty-three schools met the CPSC standard of having distinct areas for young children. 3) None of the schools met the ECERS fall zone minimums. These findings suggest that public school outdoor play areas do not meet safety standards or equipment requirements for young children. Children need age-appropriate and safe outdoor structures and opportunities to foster their play and outdoor activity.

## **02.01.06 Administrator Perspectives on the Year-Round School Calendar**

**Adegoke,Adelekan** *East Central University*

**Beakley,Logan** *East Central University*

**Butcher,Talitha** *East Central University*

One of the most prominent issues emerging in local government is the move to year-round public education. The purpose of this study is to investigate whether current Oklahoma administrators think that switching from a traditional school calendar to a year-round school calendar would have positive effects on student achievement as well as other issues currently facing Oklahoma schools. The survey will be administered via email to public school administrators throughout various regions of the state of Oklahoma. The instrument used in this research project is a 33 question survey, including multiple choice questions and check box questions for multiple answers and will take approximately 10-15 minutes to complete. An email to school administrators will be sent out, containing the link to the online survey. The respondent must give voluntary consent to participate before having access to the survey. Data analysis shows that when discussing the specific areas in which administrators believe a year-round school year could be beneficial, student retention (50%), burnout (45%) and increased remedial classes offered (38%) were the most prominent with teacher retention (15%) being the lowest. In conclusion, 60% of the administrators surveyed in the state of Oklahoma stated that they would consider switching from a traditional school year calendar to a year-round calendar.

## **02.01.07 Grammar Knowledge and Instructional Methodologies in Oklahoma Speech- Language Pathology Curriculum**

**Humphries,Michael** *University of Central Oklahoma*

**Jones,Megan** *University of Central Oklahoma*

**Benson,Susan** *University of Central Oklahoma*

Accredited graduate programs in speech-language pathology (SLP) must insure that SLP graduates enter the work force with the knowledge and skills to achieve certification and to serve as qualified and competent professionals. Grammar is considered a core knowledge area for speech-language pathologists (SLPs). However, SLP graduates have expressed a belief that they do not have a knowledge basis or skills to work with grammar structures (Blood, Mamett, Gordon, & Blood, 2010). In light of this documented belief, investigation aimed at improving instructional practices is warranted. In an effort to improve existing instructional practices, this study explored the information processing principles of feedback and formative assessment in the form of comprehension questions embedded within an online instructional e- learning module. Specifically, we investigated (1) the current grammar knowledge exhibited by SLP students across three instructional groups (junior/graduate applicants, seniors, and first year graduates); and (2) the efficacy of an e-learning instructional module utilizing formative assessment with first year graduate students. This study employed both cross-sectional and longitudinal designs.

## **02.01.08 Error Analysis of Spontaneous Language Samples from Language-Impaired Bilingual Children**

**McKaig,Michael** *University of Central Oklahoma*

The purpose of this study was to investigate the English and Spanish language errors of normally developing and language impaired bilingual children. Language samples of English and Spanish were elicited from 40 bilingual children, including 10 language impaired children. The grammatical errors of each subject group were analyzed and percentages of correct production were calculated. In addition, mean percentages of the most frequent error types were tabulated. It was found that the language impaired subjects produced more errors than did the normal subjects. In addition, differences in error patterns clearly distinguished between the language impaired and normal subject groups.

## **02.01.09 Leadership as Accelerating Identity: Exploring a Leader Development Model**

**Sims, Jeanetta** *University of Central Oklahoma*

**Cunliff, Ed** *University of Central Oklahoma*

**Robertson, Kristi** *University of Central Oklahoma*

**Tyler, Karl** *University of Central Oklahoma*

**Thomas, Masala** *University of Central Oklahoma*

**Dykes, Brad** *University of Central Oklahoma*

Too often notions of leadership in higher education involve colleges, divisions, and administrative units as well as the complexity of to-do lists and other activity generators with little regard for individual journeys or identity constellations (Sims, Cunliff, Floyd, Neese, Shuff, and Sims 2014). Yet, as one leading chemistry faculty member and research participant (Jordan Tang, in-person interview with authors, May 1, 2013) suggests, longevity in the Academy is best achieved when individuals lead from places of personal passion rather than ambition or activity. Through educator interviews, this investigation probes the characteristics of authentic leaders in higher education to distill a multi-faceted model that can assist faculty in achieving their own leadership identity in academia.

## **02.01.10 Developing an Authentic Leadership Model for Accelerating Educator Identity**

**Tyler, Karl** *University of Central Oklahoma*

**Cunliff, Ed** *University of Central Oklahoma*

**Sims, Jeanetta** *University of Central Oklahoma*

**Robertson, Kristi** *University of Central Oklahoma*

**Dykes, Brad** *University of Central Oklahoma*

**Thomas, Masala** *University of Central Oklahoma*

In an exceedingly tumultuous world, much disdain and mistrust of organizations and their leaders have worked to generate significant buzz on the subject of authentic leadership (Northouse, 2013). This approach to leadership focuses on genuine leaders who are reflectively conscious in knowing themselves as well as the manner in which they approach their work. The current study extends a previous investigation by analyzing extensive interviews with educators considered by their peers to be accomplished leaders in higher education. The purpose of the study is to identify educator leadership qualities that can distill a model capable of promoting leadership longevity. Through the integration of three theoretical frameworks (relational dialectics, authentic leadership, and organizational diversity), two research questions related to leadership facets are explored using interviews with educators, mentees, and colleagues. Interview transcripts were analyzed for key themes based on grounded theory, a constant comparative analysis (Glaser & Strauss, 2006).

## **02.01.11 The Power of Presence: 2-D in a 3-D World**

**Hawkins, Joshua** *Northwestern State University*

**Widick, Stephanie** *Northwestern State University*

The world of education is changing. The changes are not merely philosophical and political, they are also quite practical. Technology has enabled education to be accessed through various modalities and mediums including online and other multimedia forms (Kumar, 2012). In higher education, the centrality of the teacher in what was once the traditional classroom now appears an outmoded form with increasing emphasis put upon the student as a regulator of learning. Teachers in these various new classroom formats are often reduced to either a 2-dimensional figure on a screen or simply a name—the proverbial “man behind the curtain” coordinating the delivery of content and other educational exercises. Certainly, self-regulated learning is beneficial (Schunk & Zimmerman, 2008). However, research almost uniformly supports the importance of positive student-teacher relationships in relation to outcomes including engagement, motivation, and achievement (Klem & Connell, 2004). The current exploratory study investigates undergraduate and graduate students’ perceptions of relatedness to the instructor where instruction is delivered jointly between in-class and distal sites as mediated through interactive television (ITV). How does the presence (or absence) of the instructor affect perceptions of relatedness? Preliminary content analysis of data collected through semi-structured interviews indicates distinct differences in the perceptions of the participants

## **02.01.12 Receptive and Expressive Vocabulary in Low SES, Hispanic Learners**

**Johnson, Laura** *University of Central Oklahoma*

**Rittner, Dr. Linda** *University of Central Oklahoma*

**Jones, Megan** *University of Central Oklahoma*

The purpose of this study was to investigate the relationship between working (expressive and receptive) vocabulary in ESL, Kindergarten students and third grade students retained for unsatisfactory reading test scores, based on a state assessment. Students were assessed using the Peabody Picture Vocabulary Test and the Expressive Vocabulary Test. Using a Midwestern US school with a low SES and high Hispanic population, this study investigated randomly assigned students’ receptive vocabulary, beginning in Kindergarten and compared them to third grade retained students and first semester fourth grade (promoted) students to ascertain standard score differences. While results are mixed, there is an effect of working vocabulary growth based on incoming scores.

## **02.01.13 Assessing Research Skills of First Semester Freshmen at Northeastern State University**

**Woitte, Susan** *Northeastern State University*

**McCay, Kathleen** *Northeastern State University*

**McLane, Chad** *Northeastern State University*

**Standley, Olaf** *Northeastern State University*

**Hoenes, Richard** *Northeastern State University*

The purpose of this study was to assess the information literacy assignment within the first year transition course at Northeastern State University to determine if students are learning to evaluate a website and select an appropriate database for their needs, and thereby partially fulfilling one of NSU's general learning objectives "to be able to evaluate the reliability and comparative worth of various information." Each student was given the same 20-question pre and post survey that required them to select a searching tool for a particular information need and to evaluate two websites. The pre-survey was given within an online module with instruction videos. After the online experience, students attended a face-to-face class session in the library with a librarian. The post-survey was delivered during the 15th week of the semester. Our results show that the students believe they learned how to evaluate websites, but they were not able to fully apply the skill to the survey example. We also found that students' ability to select the most appropriate database for a stated information need improved.

## **02.01.14 OSHA Mandated Hazardous Communication for the Visually Impaired Employee**

**brown, guy** *University of Central Oklahoma*

OSHA Mandated Hazardous Communication for the Visually Impaired Employee Guy Brown, University of Central Oklahoma Industrial Safety, CEPS According to National Industries for the Blind, in America seventy percent of the employable, visually impaired population is currently un-employed. Due to my personal exposure to NewView Oklahoma (NVO), an Oklahoma based manufacturing facility that is associated with National Industries for the Blind; I quickly realized that current industry standards for hazardous material communication were virtually un-accessible to the blind or visually impaired worker. I decided to create a safety communication program format that was tailored to the visually impaired workers of this country. Working with NVO I researched what technology is currently being used to assist the visually impaired, and what the actual visual capabilities of their work force are. I have been able to format OSHA compliant documentation that is both visually compliant with accepted high visibility print standards as well as being fully compatible with electronic assistive technology. Currently the system is scheduled for initial implementation during March 2016 at NVO's manufacturing facility located in Oklahoma City. Upon complete implementation the system will be composed of a fully accessible electronic system maintained on the company's intranet, a set of high visibility printed documents, a set of brail printed documents and oversized specialty warning

## **02.01.15 Selected Results of a Multi-State Survey on Technology Integration**

**McClanahan,Barbara** *Southeastern Oklahoma State University*

**Smith,Melinda** *Northeastern State University*

**Stout,Jerry** *Southeastern Oklahoma State University*

**Jensen,Dr. Crystal** *Southeastern Oklahoma State University*

Technology represents a significant investment for 21st Century schools. A survey completed by 1,309 teachers and administrators across three states was conducted to understand the perceptions of both groups as to how teachers used technology in their classrooms and their perceptions of the training they received for technology use. By cross-tabulating the data and analyzing for significance, the researchers were able to draw several conclusions including which groups of teachers preferred which devices, whether and how gender, years of experience, or grade level taught impacted certain preferences, and how much training was most closely related to the highest levels of implementation. An important finding related to professional development is that the benefit of having a technology presentation by an expert to a large group of teachers seems limited to about five hours; after that, teachers prefer more specific, within-classroom guidance by an in-house instructional coach. Although the survey revealed that elementary teachers use more technology, their use is more likely to be confined to substitution or augmentation. On the other hand, when high school teachers use technology, they are much more likely to use it in ways that are much better integrated.

## **02.01.16 Endangered Species Project: A Technology-Based Collaboration Between Middle Schools in Oklahoma and Pakistan**

**Crofford,Geary** *Northeastern State University*

**Iqbal,Hazel** *Other*

Woodall School 7th graders learned about the importance of protecting endangered species including those in foreign lands by completing a project in conjunction with 8th graders at Beaconhouse School System-Canal Side Girls' Campus in Lahore, Pakistan. The purpose was to help students discover, through technology and various sources, the causes of species endangerment in not only their own country, but in other countries around the world. The students researched and shared information, made mind maps, interviewed experts, conducted surveys, and created a final product for the project such as a poster or video. The project is designed for grades 6-8, takes three weeks to complete, and consists of six activities that encourage students to apply and share their knowledge through sites like Edmodo, an educational social network where educators and students from around the world can share and collaborate. Students completed assignments to help them better understand what animals in their area are endangered; what causes species endangerment; what can be done to help prevent it or raise awareness for endangered species and why conservation is important. This was an innovative opportunity to use technology provided by schools to connect with students from around the world. Endangered species are an important topic, but society demands we be global citizens. This project could have an even broader and long-term impact on children by introducing them to other cultures and people.

## **02.01.17 The Relationship of ACT Scores to OGET Scores**

**Hancock, Ken** *Northeastern State University*

**Landry, Debbie** *Northeastern State University*

This report looks at the relationship of the ACT and the OGET tests. Data was gathered from teacher education candidates during their Clinical I class for AY-2014 and AY-2015. Scores from 159 students were correlated using a Pearson r Correlation coefficient and tested for significance. The results indicate that there is a very strong relationship between the ACT and the OGET.

## **02.01.18 The Effect of an Educational Savings Account on the Equity of Distribution of Oklahoma's Common School Funding Formula**

**Hancock, Ken** *Northeastern State University*

This report looks at the effect on the equity of distribution that is provided by the Oklahoma common school funding formula if 5% of all current school children were to enroll in the proposed Educational Savings Account. The original simulation and four funding scenarios were created and used in the study using the information from Oklahoma's Annual Financial Report for public schools for SY-2014. Two measures of distribution equity, Pearson r correlation and a Restricted Range, were used to compare the four student funding scenarios. In each case, the equity of distribution was lower than the original scenario. The more money given per student for private education, the lower the ability of the funding formula to provide equity of distribution.